

Components of Ecosystem -

a) Abiotic components - inorganic + non-living

- It consists of energy, rainfall, temp., soil, atmosphere etc.

- Most imp. determinants of where & how well an organism exists in its environment.

- One single factor can limit the range of an organism.

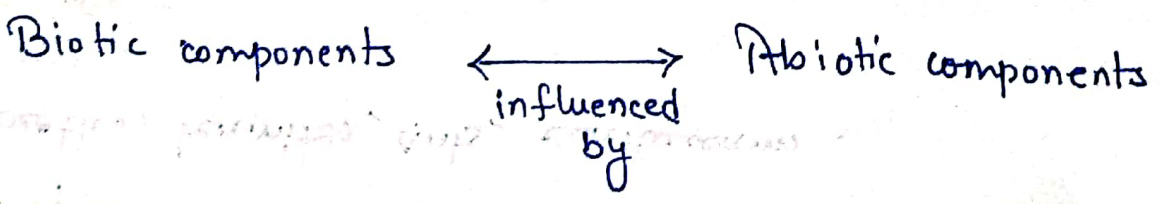
II. Abiotic structure

- physical components
- chemical components

↓  
climatic factors, edaphic (soil) factors, geographic factors, energy, nutrients & toxic substances.

a) Physical components  
→ Sunlight, shade; intensity of solar flux, temp., rainfall, latitude, soil type, water etc.

b) Chemical components  
↓  
→ essential nutrients  
(C, N, phosphorus, potassium, hydrogen, oxygen, sulphur)



## (b) Biotic Components



Producers

- Autotrophs
- self-nourishing

(By the process  
of photosynthesis)  
Green plants



Consumers

- Heterotrophs
- phagotrophs
- other nourishing
- depend on others  
for food.



Decomposers

- Saprotrophs
- osmotrophs

a) Producers -

⇒ Green plants → synthesize their food by themselves.

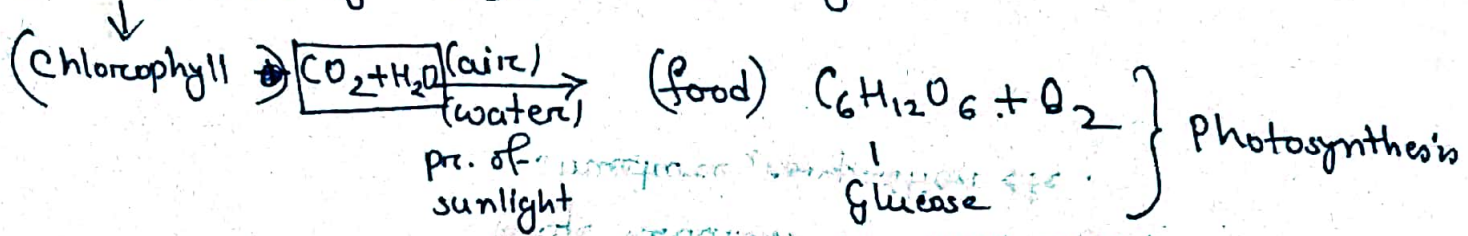


Photo autotrophs - (photo - light, auto - self, troph - food)

⇒ Chemosynthetic organisms → microorganism can produce organic matter

or through oxidation of certain chemicals

chemo - autotrophs

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absence of sunlight.

e.g. in the ocean depth - no light (sunlight)

chemo-synthetic sulphur bacteria - use the heat generated by decay of radioactive elements

(pr. in earth's core)

Convert dissolved hydrogen sulphide &  $\text{CO}_2$

$\text{CO}_2$

← (help of) this heat

↓  
form Organic compounds.

## Consumers —

- (i) Herbivores —
- plant eater
  - primary consumers
  - e.g; rabbit, insect etc.

- (ii) Carnivores —
- meat eater
  - secondary consumers
  - feed on herbivores

### Tertiary consumers e.g; frog

- feed on other carnivores
- e.g; snake, big fish etc.

- (iii) Omnivores
- feed on both plants & animals
  - e.g; human, rat, fox.

### (iv) Detritivores

- Detritus feeders
- feed on the parts of dead organisms, waste of living organisms & partially decomposed matter.
- e.g; beetles, termites, ants, crabs, earthworms etc.

## Decomposers -

- Derive their nutrition by breaking down the complex organic molecules to simpler organic compounds & ultimately into inorganic nutrients.

e.g; Various bacteria, fungi.