



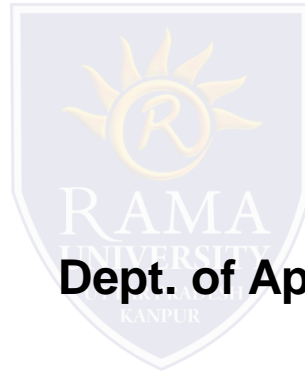
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FACULTY OF ENGINEERING AND
TECHNOLOGY

Lecture-1

Introduction to Environment



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Subject : Environmental Studies and Disaster Management

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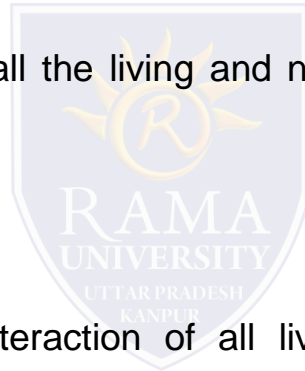
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Environment

Environment is the immediate surrounding of the living beings.

Definition...

It can be defined as “the sum total of all the living and non-living elements and their effects which influence human life”.



The environment encompasses the interaction of all living species, climate (seasons), weather (temperature, rainfall, etc.) and natural resources (sunlight, coal, etc.) that affect survival of living beings.

Environment consists of:

- **Biotic (living) factors**- include plants, bacteria, fungi, animals, etc., and
- **Abiotic (non-living) factors**- include sunlight, temperature, air, water, etc.

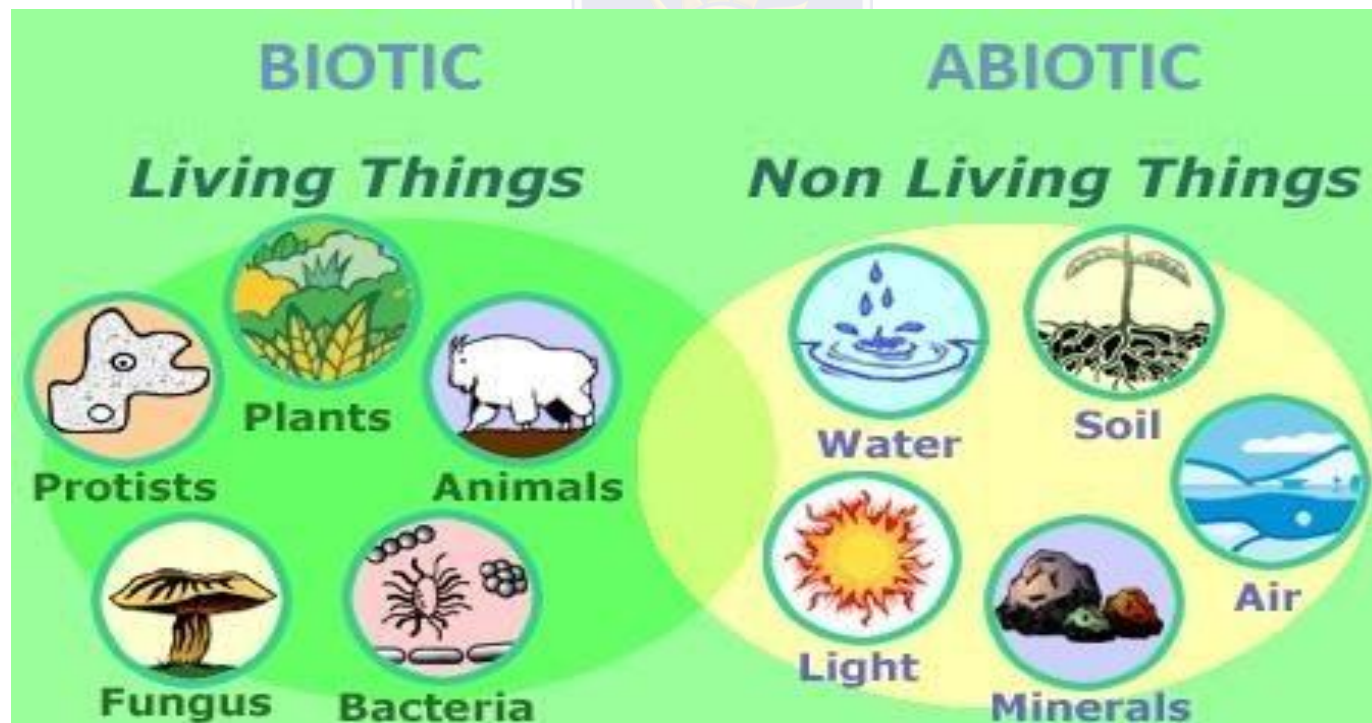
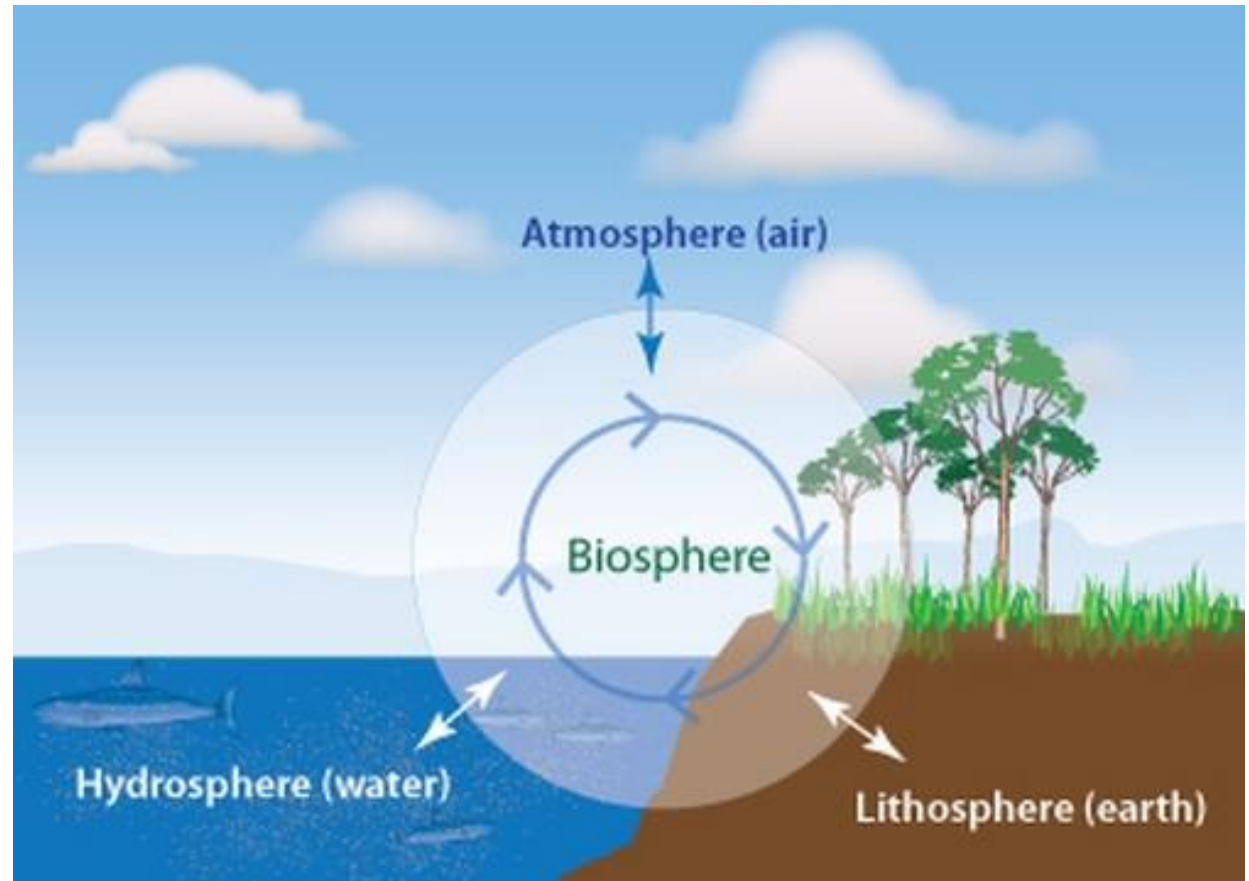


Figure source: <https://images.app.goo.gl/3jKqKyTCihisdJdb6>

Components of the Environment

There are four basic components of the environment

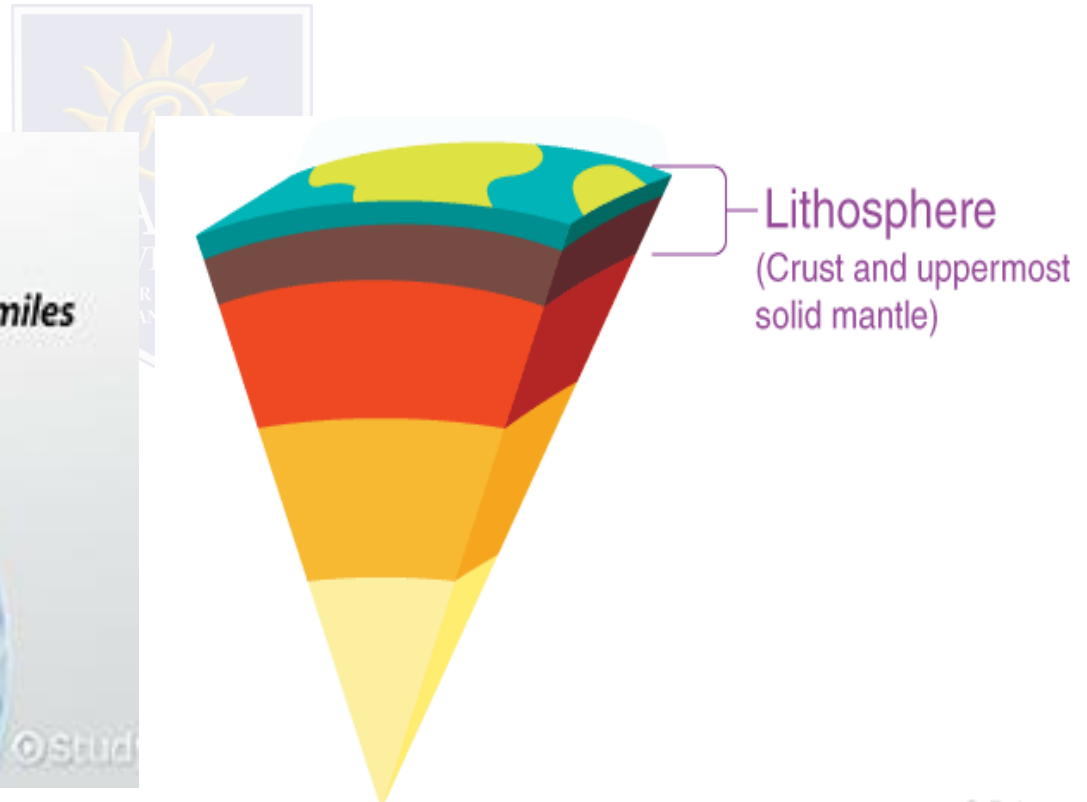
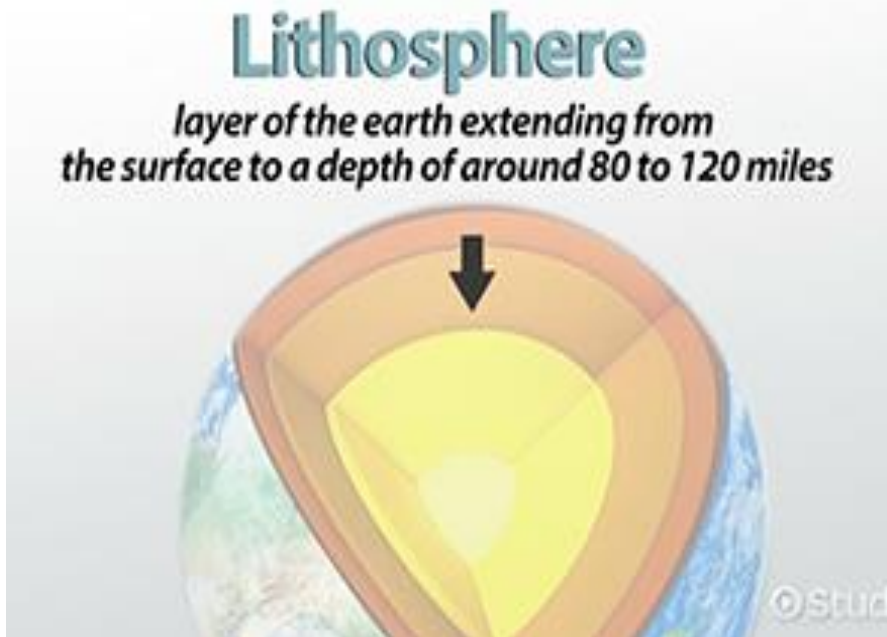
- Lithosphere,
- Hydrosphere,
- Atmosphere, and
- Biosphere



Lithosphere

It is the solid outer part of the earth that include earth crust and upper mantle. It mainly consists of soil, rocks, minerals, mountains, etc.

“Litho” refers to rocks and minerals



Hydrosphere

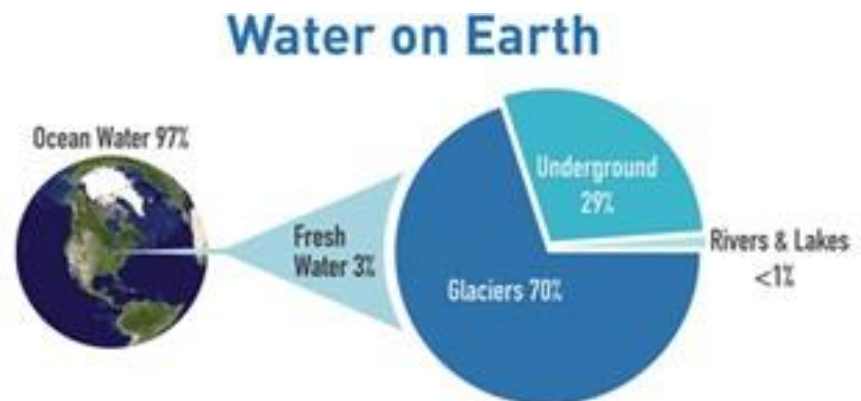
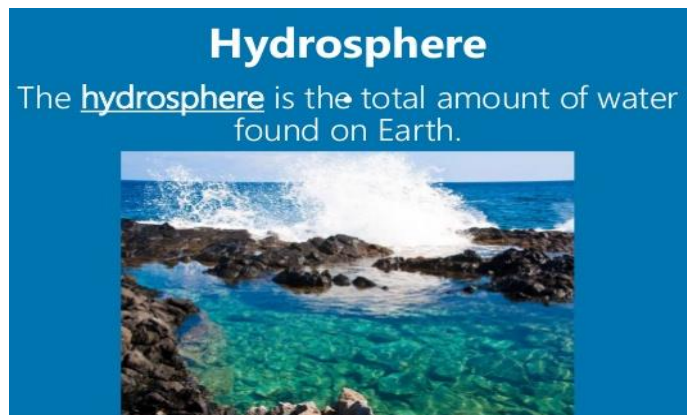
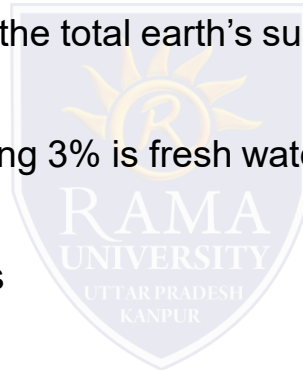
The part of the earth that consists of water, such as oceans, rivers, sea, lakes, underground water, etc.

The word “hydro” refers to “water”.

The hydrosphere covers roughly 71% of the total earth’s surface.

97% of earth’s water is salty and remaining 3% is fresh water.

Out of 3%, ~1% found in rivers and lakes



Atmosphere

The part of environment that consists of air and all gases covering a planet. It extends from the ground to some kilometres above the earth's surface.

Layers of Atmosphere:

- Troposphere
- Stratosphere
- Mesosphere
- Thermosphere
- Exosphere



Biosphere

Bio means “Life”

Biosphere is the sum of all the ecosystem of the earth (atmosphere, lithosphere and hydrosphere) where life occur.

It extends from deep sea beds to few kilometres (around 24 kms) in the atmosphere.

It is also known as Ecosphere.

