



Environment is our basic life support system. It provides the air we breathe, the water we drink, the food we eat and the land where we live. Human beings make cars, mills, factories and manufacture containers. This is how human beings modify natural environment.

**Environment:** The place, people, things and nature that surround any living Organism is called Environment. It is a combination of natural and human made phenomena.

**Biotic components:** The world of living organisms. E.g. plants and animal etc.

**Abiotic components:** The world of non- living elements. E.g. land, soil, etc.

**Natural environment:** Land, water, air, plants and animals comprise the natural environment. The natural environment consists of the physical environment and the biological environment. The three major components of the physical environment are the atmosphere, the lithosphere and the hydrosphere. They are the abiotic or non-living components of the natural environment.

**Lithosphere:** It is the solid crust or the hard-top layer of the earth. It is made up of rocks and minerals and covered by a thin layer of soil. Lithosphere is the main domain that provides us forests, grasslands for grazing and human settlements.

- The surface of the Earth is not flat. It is uneven, with different kinds of landforms like mountains, hills, valleys and plateaus. The lithosphere is that realm of the Earth through which most of the needs of humans are met.
- Land is needed for human settlements. Soil is essential for agriculture.
- Industries get vital minerals and other raw materials from the lithosphere.

**Hydrosphere:** The domain of water is referred to as hydrosphere. It comprises various sources of water and different types of water bodies like river, lakes, seas etc. The earth is called the Blue Planets because 71% of its surface is covered with water and only 29% with land. Water is found as solid ice in glaciers and ice sheets.

- It is found as liquid water in oceans, rivers, lakes, ponds and underground streams. It is also found as water vapour in the atmosphere. Water moves continuously from one form to the other; this movement is called the water cycle.
- Water is needed for both domestic and industrial uses. It is important to prevent water from getting polluted and wasted. We should conserve it.

**Atmosphere:** It is the thin layer of air that surrounds the earth. The gravitational force of the earth holds the atmosphere around it. It consists of a number of gases, dust and water vapours. The atmosphere is useful to humans in different way. It provides the life-giving gas oxygen. We inhale oxygen and exhale carbon dioxide.

- It protects life from the harmful rays and the scorching heat of the sun.

**Biosphere:** Plants and animal kingdom together make biosphere or the living world. It is narrow zone of the earth where land, water and air interact with each other to support life. Everything in the biosphere is interconnected and interdependent.

- Forest provide products like timber, fruits, nuts, resins and medicinal herbs.
- They also provide a natural habitat for various plants and animals.
- Forests help moderate atmospheric temperature by absorbing carbon dioxide and adding moisture to the air through transpiration.



- Many animals depend on forests and grasslands for their food.
- Human, in turn, depend on animals as a source of food. Some people also use animals as a means of transport and to carry heavy loads.

**Ecosystems:** All plants, animals and human beings depend on their immediate surroundings. Often, they are also interdependent on each other. This relation between the living organisms as well as the relation between the organisms and their surroundings forms an ecosystem.

- Ecosystem can be natural or artificial. Forest, grasslands, deserts, mangroves, lakes and coral reefs, are natural ecosystems. Terrariums, aquariums and agricultural land- are artificial ecosystems. They are created by human beings.

**Human environment:** Human beings interact with the environment and modify it according to their need. Early humans adapted themselves to the natural surroundings. They led a simple life and fulfilled their requirements from the nature around them. With time needs grew and became more varied.

- Humans learn new ways to use and change environment. They learn to grow crops, domesticate animals and lead a settled life. The wheel was invented, surplus food was produced, barter system emerged, trade started and commerce developed. Industrial revolution enabled large scale production.
- Transportation became faster. Information revolution made communication easier and speedy across the world. The Human-made Environment is that which is created when human beings interact with the natural environment. Building, railway, tracks and bridges. Family, school, college, community. People who live in hot, wet coastal areas like Kerala or coastal Odisha traditionally eat and fish. People who live in the icy reaches of Ladakh wear woolen clothes, and traditionally eat food based on barley and wheat.
- People who live in places like Punjab and Uttar Pradesh, which have very cold winters and hot summers, dress and eat according to the season. There are many environmental issues to address like deforestation, poaching, overpopulation, poverty, air pollution, water pollution, land pollution and noise pollution.

**Barter system:**

It is a trade in which goods are exchanged without the use of money.

The diagram below represents major domains of the Environment

