

Hinduism states that the natural environment is a manifestation of divine nature itself. The order of creation was Akash (space), Vayu (air), Teja (energy), Aap (water) and prithvi (earth). These are known as the 'Panchtatva' or the five elements. Hindu code bill or dharma strives to create harmony for the individual not only within the established societal order but also with the natural environment.

There are four basic components of natural environment:-

- 1) Atmosphere or the air.
- 2) Hydrosphere or the water.
- 3) Lithosphere or the rocks and soil.
- 4) Biosphere or the living component of the environment.

**Atmosphere** - this consists of a complex mixture of a number of gases, water vapour and a variety of fine particulate material. The earth's atmosphere can be roughly divided into 4 major zones based on temperature. These zones are as follows:-

**a) The troposphere:** - this is immediately above the earth's surface and extends upto a height of 20 kms. above the equator and 8 kms. over the poles. The temperature may drop to  $-60^{\circ}\text{C}$  at its upper extremity.

**b) The Stratosphere:** - it is about 30 kms. in thickness and is an important zone of the atmosphere as it contains the 'Ozone' layer. The temperature in this zone rises from  $-60^{\circ}\text{C}$  to  $0^{\circ}\text{C}$ .

**c) The mesosphere** - it is about 40 Kms in thickness and this zone is characterised by gradual decline in temperature to about  $90^{\circ}\text{C}$ .

**d) The thermosphere** - in this zone the temperature increases with height & most of the constituents of this zone are in an ionized state. Importance of atmosphere: - As a life support system the atmosphere or air is important to us.

- 1) The structure and the composition of atmosphere are responsible for creating conditions suitable for the healthy existence of the biosphere.
- 2) Atmosphere regulates the temperature of the earth.

This is due to the presence of gases which are capable of absorbing long wavelength radiations, otherwise no activities could be carried out due to extreme temperatures.

3) The incoming solar radiations are filtered above the earth's surface. Harmful ultraviolet rays are absorbed in the stratosphere by the vital ozone layer. These ultraviolet rays can severely damage life on earth.

4) The temperature and pressure patterns regulates the abundance and composition of the biotic system on earth.

5) The atmosphere is a quick and effective media for transfer transport and dissemination of gaseous wastes.

6) Pollutants in the atmosphere are removed to a great extent due to snow dew or rain which cleans the atmosphere.

Hydrosphere: - an enormous quantity of water is present on our planet. In the total estimated water on earth 95% is locked in the lithosphere and 5% is actually available for fine circulation. Much of the available water contains a high percentage of salt and is therefore of little use to mankind. It is mainly the water received in the form of precipitation - rain dew snow which is the most important source of fresh water to life on the earth. Importance of water :- 1) without water life as it exists on our planet is impossible. 2) Water is an important medium in which all biochemical reactions within a living organism and the other components of the environment like rocks soil etc. occur. 3) The availability of water determines the nature composition and abundance of vegetation and other forms of terrestrial life. 4) Water vapour can effectively absorb long wavelength radiations and therefore it acts like a greenhouse gas and plays an important role in regulating the temperature of the earth's crust. 5) Water can be retained in the soil due to high surface tension and the moisture retained in the soil therefore supports vegetation. 6) The low lying region of the world, the river basins and land along seawast is much more productive and nearly 90% of the world population is concentrated in these areas. Lithosphere or Rocks & Soil - The lithosphere can be broadly in two categories A) Rocks B) Soil. a) Rocks - the rocks found on the earth's crust are of three types. a) Igneous rocks - they are formed by cooling and solidification of molten rock material called Magma e.g. Basalt. b) Sedimentary rocks - develop as a result of gradual accumulation consolidation and hardening brought about by wind

and water. These rocks are characterised by distinct sedimentary layers e.g. shale sandstone. c)  
Metamorphic rocks - are formed as a result of metamorphosis of igneous and sedimentary rocks due to intense heat and high pressure eg. Marble Slate. Formation of soil. The changes in the earth's crust as a result with atmosphere and the hydrosphere is called weathering.