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This over-exploitation of earth's natural resources has degraded, deteriorated or ruined the environment in which we live today. That has necessitated the study of ecology. The field of ecology deals with the influence of different environmental factors on all the aspects of life like morphology, physiology, growth, behavior and survival of the organisms. The surroundings of an organism affect the life of an organism. The white people in Europe and the blacks in Africa, all are human beings. The temperature, solar radiation, quality of water and the mineral resources influence the development of a species in a particular way. The interrelationship of ecology and environment has a very wide scope to consider. It has the structural components, biochemical cycles, bio amplification, toxic substances, detoxification, food and energy chains, different natural cycles like hydrological cycle, material cycles like the bio-geochemical cycles (nitrogen cycles, sulfur cycles) etc.

The environment has been classified as:

(a) Living or biotic environment: It consists of plants, animals and micro-organisms.

(b) Physical or abiotic environment: It consists of external physical factors like temperature, water, minerals, wind, gases and many types of radiations. Even the sound present in the atmosphere affects us.

According to Indian philosophers the words, which we utter or pronounce, are Aksharas, means living for all times to come. So they are all present in the atmosphere in such a hidden form of energy that is still to be explored.

These constituents of environment are referred to as the environmental factors or ecological factors or just as factors. A factor is defined as an ecological condition which directly or indirectly affects the growth and development and hence the life of an organism. This abiotic environment influences the biotic one and the living beings change, influence or deteriorate the non-living ones. For example we consume the food and after extraction of energy out of it we defecate the fecal material. That putrescible organic matter decomposes and gets stabilized into inorganic matter. This organic matter is taken up by the plants, trees in the form of minerals, nutrients, micro-nutrients and again they make the food for us.

So there is a chain or a cycle in which the living and non-living beings are tied with each other. That is why we say that there is somebody (God) in every particle (living or non-living) in the same form, state, quantity, energy level etc. It is not so easy to understand all this but at least this should be understood clearly that everything on the earth is interdependent, associated with each other and we cannot live in isolation. This is the main fundamental of the study of science of earth i.e. ecology. Besides this philosophical aspect scientifically one has to study ecology for the following reasons.

Ecology

Community

species

Niche

Habitat

Population

Environment

Succession

Biome

Organisms

(i) Marine ecology

(ii) Freshwater ecology

(iii) Stream ecology

(c) Terrestrial ecology

(i) Grassland ecology

(ii) Forest ecology

(iii) Desert ecology

Habitat ecology

