

A CLEAN ENVIRONMENT – A HEALTHY LIFE

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Rezumat

Prin mediul înconjurător sau ambient se înțelege complexul elementelor natural și a fenomenelor artificiale în afara Terrei care condiționează viața în general și viața umană în special. Sensul dat acestei notiuni este că un set de elemente, în complexitatea lor constituie cadru, mijloacele și condițiile de viață de om, elemente care pot fi simțit sau nu.

Altă definiție se găsește în legea de protecție a mediului înconjurător, în care mediul este definit ca fiind ansamblul de condiții și elemente naturale ale Terrei: aer, apă, solul, subsolul, toate straturile atmosferei, toate substanțele organice și anorganice, precum și toate creaturile și sistemele naturale în interacțiune cuprinzând elementele menționate mai sus, inclusiv valorile spirituale și materiale.

Efectul mediului poluat asupra organismului uman este variat și complex. Se poate merge de la simple incomodități în activitatea umană la perturbări grave de sănătate chiar până la pierderea vieții.

Aceste efecte au fost descoperite cu mult timp în urmă, dar omul a rămas iresponsabil față de natură. Efectele acute au fost primele care s-au observat și cercetat cu privire la influența poluării mediului asupra sănătății oamenilor. Acestea sunt datorate concentrațiilor mari de poluanți din mediu cu puternice repercursiuni asupra corpului uman. Efectele cronice reprezintă cele mai frecvente forme de manifestare a efectelor mediului poluat asupra sănătății. Acest lucru se datorează faptului că poluanți diferiți existenți în mediul înconjurător nu ajung la un nivel ridicat, în scopul de a produce efecte acute, dar prezența lor permanentă, chiar și în concentrații mici nu este lipsită de consecințe rele. Efectele cronice au o importanță deosebită sub aspect economic și social.

Mediul ne oferă condițiile de viață necesare, dar depinde de noi, dacă vrem să utilizăm aceste elemente esențiale, cât de util posibil sau în cazul în care ne-o dorim, pentru a evita acest aspect al vieții noastre. Poluarea din afara planetei este agravată zi de zi, și se pare că oamenii nu dau destulă credibilitate la acest proces nociv. Protecția planetei noastre este o problemă globală și de aceea, fiecare om trebuie să își asume această responsabilitate.

Abstract:

By environment or ambient we understand the complex of elements and natural and artificial phenomena outside Terra which condition life in general and human life in particular. The meaning given to this notion is that of a set of elements which, in their complexity constitute the framework, the means and the life conditions of the man, elements which can be felt or not.

Other definition is found in The Law of environment protection, in which the environment is defined as being the ensemble of conditions and natural elements of Terra: air, water, soil, subsoil, all the layers of the atmosphere, all the organic and inorganic substances as well as all creatures and natural systems in interaction comprising the above mentioned elements including spiritual and material values.

The effect of the polluted environment upon the human body is varied and complex. It can go from simple inconveniences in human activity to serious disturbances of the health even the loss of human life.

These effects were discovered a long time ago, but man remained irresponsible towards nature. The acute effects were the first ones upon which observation and research concerning the influence of environment pollution on people's health was done. They are due to high concentrations of the pollutants from the environment with powerful repercussions upon human body. The chronic effects represent the most frequent forms of manifestation of the effects of the polluted environment upon health. This is due to the fact that the different pollutants existing in the environment don't reach high levels in order to produce acute effects, but their permanent presence even in low concentrations is not deprived by bad consequences. Chronic effects though have a particular importance under economical and social aspect.

The environment provides us with the necessary living conditions, but it is up to us if we want to use these essential elements as useful as possible or if we want to avoid this aspect of our life. The pollution of our planet is aggravating day by day and it seems people don't give enough credit to this harmful process. The protection of our planet is a global issue and, that is why every man must assume this responsibility.

The **natural environment**, commonly referred to simply as the **environment**, is a terminology that comprises all living and non-living things that occur naturally on Earth or some region thereof. This term includes a few key components:

Complete ecological units that function as natural systems without massive human intervention, including all vegetation, animals, microorganisms, rocks, atmosphere and natural phenomena that occur within their boundaries.

Universal natural resources and physical phenomena that lack clear-cut boundaries, such as air, water, and climate, as well as energy, radiation, electric charge, and magnetism, not originating from human activity.

The natural environment is contrasted with the built environment, which comprises the areas and components that are strongly influenced by man. A geographical area is regarded as a natural environment (with an indefinite article), if the human impact on it is kept under a certain limited level (similar to section 1 above). This level depends on the specific context, and changes in different areas and contexts. The term wilderness, on the other hand, refers to areas without human intervention.

A central principle of ecology is that each living organism has an ongoing and continual relationship with every other element that makes up its environment. The sum total of interacting living organisms (the biocenosis) and their non-living environment (the biotope) in an area is termed an *ecosystem*. Studies of ecosystems usually focus on the movement of energy and matter through the system.

All forms of life interact with the environment in which they exist, and also with other life forms. In the 20th century this premise gave rise to the concept of **ecosystems**, which can be defined as any situation where there is interaction between organisms and their environment.

Ecological factors which affect dynamic change in a population or species in a given ecology or environment are usually divided into two groups: abiotic and biotic.

Abiotic factors are geological, geographical, hydrological and climatological parameters. A **biotope** is an environmentally

uniform region characterized by a particular set of abiotic ecological factors. Specific abiotic factors include:

Water, which is at the same time an essential element to life and a milieu

Air, which provides oxygen, nitrogen, and carbon dioxide to living species and allows the dissemination of pollen and spores

Soil, at the same time source of nutriment and physical support

Soil pH, salinity, nitrogen and phosphorus content, ability to retain water, and density are all influential

Temperature, which should not exceed certain extremes, even if tolerance to heat is significant for some species

Light, which provides energy to the ecosystem through photosynthesis

Natural disasters can also be considered abiotic

Biotic ecological factors also influence biocenose viability; these factors are considered as either intraspecific and interspecific relations.

Biocenose, or community, is a group of populations of plants, animals, microorganisms. Each population is the result of procreations between individuals of same species and cohabitation in a given place and for a given time. When a population consists of an insufficient number of individuals, that population is threatened with extinction; the extinction of a species can approach when all biocenoses composed of individuals of the species are in decline. In small populations, consanguinity (inbreeding) can result in reduced genetic diversity that can further weaken the biocenose.

Intraspecific relations are those which are established between individuals of the same species, forming a population. They are relations of co-operation or competition, with division of the territory, and sometimes organization in hierarchical societies.

The existing interactions between the various living beings go along with a permanent mixing of mineral and organic substances, absorbed by organisms for their growth, their maintenance and their reproduction, to be finally rejected as waste. These permanent

recyclings of the elements (in particular carbon, oxygen and nitrogen) as well as the water are called geochemical cycles. They guarantee a durable stability of the biosphere (at least when unchecked human influence and extreme weather or geological phenomena are left aside). This self-regulation, supported by negative feedback controls, ensures the perenniality of the ecosystems. It is shown by the very stable concentrations of most elements of each compartment. This is referred to as homeostasis. The ecosystem also tends to evolve to a state of ideal balance, reached after a succession of events, the climax (for example a pond can become a peat bog).

Humanity's actions over the last few centuries have seriously reduced the amount of the Earth covered by forests (deforestation), and have increased agro-ecosystems (agriculture). In recent decades, an increase in the areas occupied by extreme ecosystems has occurred (desertification).

Nature, in the broadest sense, is equivalent to the **natural world**, **physical universe**, **material world** or **material universe**. "Nature" refers to the phenomena of the physical world, and also to life in general. Manufactured objects and human interaction are not considered part of nature unless qualified in ways such as "human nature" or "the whole of nature". Nature is generally distinguished from the supernatural. It ranges in scale from the subatomic to the galactic.

Within the various uses of the word today, "nature" may refer to the general realm of various types of living plants and animals, and in some cases to the processes associated with inanimate objects – the way that particular types of things exist and change of their own accord, such as the weather and geology of the Earth, and the matter and energy of which all these things are composed. It is often taken to mean the "natural environment" or wilderness – wild animals, rocks, forest, beaches, and in general those things that have not been substantially altered by human intervention, or which persist despite human intervention. This more traditional concept of natural things

which can still be found today implies a distinction between the natural and the artificial, with the latter being understood as that which has been brought into being by a human or human-like consciousness or mind.

Earth (or, "the earth") is the only planet known to support life, and as such, its natural features are the subject of many fields of scientific research. Within the solar system, it is third nearest to the sun; it is the largest terrestrial planet and the fifth largest overall. Its most prominent climatic features are its two large polar regions, two relatively narrow temperate zones, and a wide equatorial tropical to subtropical region. Precipitation varies widely with location, from several meters of water per year to less than a millimeter. About 70 percent of the surface is covered by salt-water oceans. The remainder consists of continents and islands, with most of the inhabited land in the Northern Hemisphere.

Earth has evolved through geological and biological processes that have left traces of the original conditions. The outer surface is divided into several gradually migrating tectonic plates, which have changed relatively quickly several times. The interior remains active, with a thick layer of molten mantle and an iron-filled core that generates a magnetic field.

Although there is no universal agreement on the definition of **life**, scientists generally accept that the biological manifestation of life is characterized by organization, metabolism, growth, adaptation, response to stimuli and reproduction. Life may also be said to be simply the characteristic state of organisms.

Properties common to terrestrial organisms (plants, animals, fungi, protists, archaea and bacteria) are that they are cellular, carbon-and-water-based with complex organization, having a metabolism, a capacity to grow, respond to stimuli, and reproduce. An entity with these properties is generally considered life. However, not every definition of life considers all of these properties to be

essential. Human-made analogs of life may also be considered to be life.

The first form of life to develop on the Earth were microbes, and they remained the only form of life on the planet until about a billion years ago when multi-cellular organisms began to appear. Microorganisms are single-celled organisms that are generally smaller than the human eye can see. They include Bacteria, Fungi, Archaea and Protista.

These life forms are found in almost every location on the Earth where there is liquid water, including the interior of rocks within the planet. Their reproduction is both rapid and profuse. The combination of a high mutation rate and a horizontal gene transfer ability makes them highly adaptable, and able to survive in new environments, including outer space. They form an essential part of the planetary ecosystem. However some microorganisms are pathogenic and can pose health risk to other organisms.

Wilderness is generally defined as a natural environment on Earth that has not been directly modified by human activity. Ecologists consider wilderness areas to be an integral part of the planet's self-sustaining natural ecosystem (the biosphere).

Although humans currently comprise only about one-half of one percent of the total

living biomass on Earth, the human effect on nature is disproportionately large (thus generating the appearance of such terms as *man-nature continuum*, *humanized nature* or *human environment*). Because of the extent of human influence, the boundaries between what we regard as nature and "made environments" is not clear cut except at the extremes. Even at the extremes, the amount of natural environment that is free of discernible human influence is presently diminishing at an increasingly rapid pace, or, according to some, has already disappeared.

The development of technology by the human race has allowed the greater exploitation of natural resources and has helped to alleviate some of the risk from natural hazards. In spite of this progress, however, the fate of human civilization remains closely linked to changes in the environment. There exists a highly complex feedback-loop between the use of advanced technology and changes to the environment that are only slowly becoming understood. Manmade threats to the Earth's natural environment include pollution, deforestation, and disasters such as oil spills. Humans have contributed to the extinction of many plants and animals.

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