

# Ecology and Economics: Contradiction, Correlation Versus Harmony

Shokirov Mubin Rustamovich<sup>1</sup>

***Abstract.** In the following article modern ecological issues, environmental hazards are reconsidered. Also the correlation of the ecology and economy is analyzed. The ideas of Carl Linnaeus, K.A.Timiryazev, M.T.Mileshkin are analysed through the system of comparative analysis. It has been substantiated that the recovery of the environmental chain is undergoing within the framework of the cyclic changes in the biosphere.*

***Keywords:** ecology, economics, material resources, coronavirus pandemy, ecological issues, econology, artificial materials, resource saving, pollution, environmental components.*

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## I. INTRODUCTION.

Nowadays more than 7 billion people live in the world, whereas Uzbekistan has 34 million people. There is an only one planet Earth for the all countries of the world. Every individual, country and state is responsible before the nature. Regardless how strong is the state from the viewpoint of economics, the state is weak and secondary before the nature, its rules. Thus, obeying the rules of nature is the main aspect of the development of society. Because of the decrease in the usage of automotives for several months we became the evident of the improvement of environment, the trees growing alongside the roads became more strong having the color and even the appearance and resilient changed in the countries of the world due to coronavirus pandemy occurred. The norm in the being of the nature shouldn't be deviated.

Consequently, there is a level of saturation of biosphere with the automotives. Has the humanity has already passed and forget the threshold of "red light"? The number of the cars are increasing with level of 3 times more than the people (the increase in the number of people).

### **Main part**

While the aim of the humanity is to enhance the level of living, its development and improvement; the essence of the nature- biosphere and its components by conserving the bioenergetical functions, the attempt to restore itself. Broadly speaking, if we put the attempts to live better on one weight of the scale, on the other weight of the scale there are issues of responsibility in the settlement of limits of possibility of the nature. The solution of this contradiction is dependent on the economical mechanism of all countries of the Planet Earth.

How developed the country is, it consumes more corresponding natural resources. For example, the United States when compared to its ratio in the population of the country consumes 40 percent of the natural resources of the world.

It is noteworthy that after the achievement of national independence Uzbekistan reconsidering the quality indices of the environment passed into the natural resources' saving, if possible, to the extent of technologies ecologically substantiated.

Are the sciences of economics and ecology interdependent? Why are the roots of the words "economics" and "ecology" are the same?

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<sup>1</sup> Lecturer of the Bukhara State University

What is the necessity, natural necessity, limited and rational necessity? For how long do the material resources can last? What are the costs of the natural resources? What are their economical costs? Which is expensive, brilliant, diamond or water? Is there an ecological cost of the material values, if there is such a value, with the help of what measures it is calculated?

The saving and preservation of nature and its resources, responsible usage of the each ecological component are considered by humans during the course of the centuries. The saving of the living planet and in opposite its destruction to some extent is related with the activity of the humanity? For the first time the term “Ecology” was introduced by the German scholar Ernest Haeckel. He mentioned that the ecology is the “complex study of knowledges related with the economics of the nature, consisting of the study of friendly, harmonious, otherwise enmity relations with the living (plants, animals) and non-living components in the nature of organism”. **The term “Economy of Nature” is also not a new term; it was coined by the namesake dissertation of the Carl Linnaeus published by him in 1749.** Charles Darwin while glancing at the “Economy of Nature” as a the process of dissemination of the living world, preservation, its destruction , as being the “grandchild” of Linneus and the ideological “son” of Lavel continued these opinions. **Afterwards the K.A. Timiryazev had initiated to call this branch of the biology as the “economy of plants and economy of animals”.**

These ideas in the science were considered as the theory until the happening of first ecological crises. The economy in the biosphere was developing until the certain period of time by not paying attention regardless of general ecological indices, the economy was dominant prioritizing over all indices. The mining industry was evaluated at 60-70 billion dollars; seaborne trade (most part of it relates to the tankers carrying oil) had made operations at 40 billion dollars, whereas the fishery which has enormous part in the mental development and increase in the of intellectual capabilities of the human is evaluated at only 10 billion dollars.

The 21<sup>st</sup> century- is not the secret that being the required century of the supremacy of intellectual power is substantiated and put on the agenda again and again by the ecological and economical catastrophes, technogenous disasters.

As a correlation of the economy and ecology, amalgamation, “intersection” of these two sciences new integral science – **ecology** was formed. Economics – is the art of the conduct of household. It is well known that the word economics is derived from the Greek “oikonomike”, meaning artificial household, has root “oikos”.

The economics is the social science being the subdivision of economical sciences, as a science aimed at the usage of rare economical resources to cover the unlimited material needs of the society. **The term “Ecology” was used by the M.T.Mileshkin.** The ecology was loaded with the considering of the system of “Nature-society” through the ecological and economical “mirrors”, giving recommendations on analyzing theoretically and scientifically, their management and planning. In general, the ecology is considered as the science in the ecologico-economical system. There is a limit on natural resources, every large, huge amounts of oil, gold deposits, gas and mineral resources, the Animal and Plant kingdom have their limits, may be depleted. That’s why the industrial output, in general the activities of the humanity should be organized to that extent, it shouldn’t diverge from the limit of adaptation of humanity, but at the same time the best quality of the biosphere should be preserved. It means the maintenance of the protection of the biosphere.

In Uzbekistan the ecological basics of the issue of the ecological management, ecological components (water, air, soil, natural resources, flora, fauna world and etc.), ecological value, industrial output, the economic impact of the

pollutions are studied by academician A.Ergashev, associate professor I.Rudenko,[3.298] Doctor of Science in Philosophy, prof. H.Y.Salomova [1.110], S.R.Davlatov [2.93] and others.

The economical development in most cases is related with the natural resources. But most of the natural resources are limited with the means covering the necessities of the humanity, having their frame of capabilities and are rare. Therefore, there is a large difference between the demand, need and material means. On one hand it combines the macroeconomics and microeconomics, that's leads to the recognition and rationally organization of the household, on the second hand there is an increasing attempt to look for and their application in the replacing the (substitute) artificial materials.

Thus, the idea of saving natural resources, large-scale use of secondary resources, and most importantly, the production and practical use of natural resources, replaceable products (materials) is gaining momentum. The importance of the economy in the process of solving this problem and its practical application is invaluable, say Uzbek scientists A.A.Rafikov, K.N.Aberkulov, A.N.Khojimatov. We have a small objection to these scientists. Any compound that replaces natural resources cannot "enter" the natural cycle of the biosphere or, in other words, is not absorbed into the biosphere, so what do you think about the fact that the most essential component, such as Freon, is stored in the biosphere for 105 to 210 years? Or what is the fate of high-polymer materials?

It is known that 32% of the world's gross domestic product is supplied by environmental resources. In our opinion, it is clear that the role of environmental resources in the development of the economy will increase again, because as the population grows, the increase in the quantity of livestock and agricultural products will affect the qualitative improvement (environmentally friendly products). In other words, it requires the delivery of grain, livestock and agricultural products to the norm, which is suitable for everyone.

## II. THEORETICAL BACKGROUND

At the end of the 1970s, the environmental audit system was being studied in the United States and the United Kingdom. So what is an environmental audit?

Environmental audit is an economic mechanism for protecting the environment. The main purpose of the audit is to examine the activities of companies and to check whether they produce in accordance with the law or regulations, or, conversely, their violation. This analysis is performed by an audit organization or an individual environmentalist-auditor.

The purpose of an environmental audit is to ensure an environmentally safe situation, and the company or manufacturing enterprise is an indication of the rules, laws, standards and the use of Environmental Protection, clear guidelines and guiding principle for conservation, preservation of nature reserves and environmental components, and the use of austerity measures.

The main purpose of the environmental audit is to assess the environmental safety of production and fulfillment of environmental obligations:

1. Evaluation of investment projects: planning of their financing at the expense of the city and regional ecological fund;
2. When evaluating an enterprise, production organization or association from the point of view of environmental safety;
3. In the selection of rational, effective projects, the organization of compliance with environmental norms and standards;

4. An environmental audit is evident in the provision of information to individuals required to obtain a license to start an activity in the environment.

**From the following methods of conducting environmental audit used:**

**Questionnaire method** - the environmental situation in the enterprise or production association, the purity of production products, the impact of the enterprise on the environment, all the factors of enterprise development are studied;

**Material balance and method of technical calculations** - the system of raw materials, resources, water and contaminants is analyzed. All this allows us to assess the physical impact on the environment. Waste management system from the enterprise to the environment; pollutant disposal systems, solid waste, environmental monitoring of the organization from the enterprise.

**Cartographic method** - this method is used to process the geographical location of the industrial enterprise, its area, geodetic maps, topographic maps and compare and analyze copies of the general plan.

In October 1991, the European Commission adopted the “Environmental Management and Auditing Rules”, which is based on the level of readiness of each enterprise for environmental requirements.

Environmental management is a set of laws, methods and management systems that ensure environmental safety save natural resources and use nature and their resources wisely.

Ecological management and ecological marketing is a special nature management method from such a sustainable development of society, in which the conscious activity of people over nature takes precedence over management.

### **III. RESULTS**

Conscious activity refers to the impact of humanity on nature in a rational, ecological manner and in accordance with the laws, taking into account the capabilities of the biosphere.

**The main directions of ecological science are:**

1. Demonstrate environmental and economic efficiency in the use and conservation of natural resources obtained or available. The economic reality in this regard should not be overlooked. The ecology has been formed as a science of practical importance that can preserve nature and the natural environment as a new form of economizing natural resources.

2. One of the main directions of economics is not only the conservation, efficient use and economical use of natural resources, but also their rational distribution. The problems of ecology are moving beyond economics to a more practical science.

3. Another important aspect of the science of ecology is to determine the economic damage caused by anthropogenic activities: degradation, trigger, acute (lethal) catastrophic, caustic, destructive effects.

4. It is about identifying economically the losses from pollution and laying the groundwork for the next generation not to repeat these mistakes.

Environmental pollution is the physical and chemical changes in the composition of natural substances (soil, water, subsoil, atmospheric air, etc.).

Environmental pollution is divided into two types:

1. Natural pollution;

2. Anthropogenic pollution.

Human activity is not observed in natural pollution. For example, earthquakes, floods, ice avalanches, landslides, etc.

It should be noted that natural pollution is an environmentally safe pollution. Their impact on the environmentally safe environment is 3-10% in economic terms.

Pollutions that occur in the environment due to human activities are called anthropogenic pollutants. Anthropogenic pollution can be divided into the following groups:

1. Biological pollution;
2. Chemical pollution;
3. Physical pollution;
4. Geological and hydrological pollution.

According to the duration of anthropogenic pollution: temporary and permanent; according to the scale of distribution: planetary (universal), regional (regional) and local (local) groups.

Physical pollution itself is divided into heat, light, noise, radioactive, electromagnetic pollution. Anthropogenic pollution is divided into the following groups according to the components of nature:

1. Water pollution;
2. Air pollution;
3. Soil pollution;
4. Pollution of landscapes.

Anthropogenic pollution of the environment in the form of economic relations accounts for 90-97% of total pollution.

Damage to the environment will have economic and environmental significance. It takes more time and money to clean both dirty water and dirty air and dirty soil. To make dirty water relatively clean, you need to add 30 times more clean water than dirty water. When one cubic meter of sewage is dumped into a clean river, sixty cubic meters of clean water is polluted.

If in the middle of the 20<sup>th</sup> century pollution had a local character, then by the end of the 20<sup>th</sup> century and the beginning of the 21<sup>st</sup> century it came out on a universal scale. Annually, 500 billion square meters (m<sup>3</sup>) of wastewater is discharged into water bodies, and the amount of solid waste discharged into the world's oceans is 14.4 billion tons.

### **Conclusion**

Stabilizing or reducing waste around the world affects all areas of human activity. To evaluate the advantages of this or that option, we must know the following:

1. How much will it cost us? What will be the negative consequences if we allow the amount of waste to increase?
2. To what extent are our future grandchildren ready for the responsibility of the 22<sup>nd</sup> century climate, the quality of environmental components?

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