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**MEDICAL GEOLOGY AS A CHALLENGING ISSUE
(WITHIN THE FRAMEWORK OF HUMAN ECOLOGY)**

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During the last several centuries humanity has conquered the majority of the Earth's places, no matter how far or difficult to approach they are. A high-level ability to adapt allows people not only to survive during the Ice Age, but also to transform the environment under their own preference, so humanity has become the prevailing species on the Earth. But it should be noted that people's activities not only have made the habitat of people more comfortable than in earlier centuries, but they have created a number of ecological problems.

Unlimited deforestation resulting in the massive soil erosion and species extinction, soil and atmosphere pollution by toxic wastes of factories - all these ecological problems can cause the destruction of the sustainability of ecosystems all over the world. Although general ecology deals with the elimination of the consequences of possible accidents, such scientific branches as human ecology and medical geology research the influence of human activities consequences on humanity. So, it is very important to identify what kinds of questions are studied by these scientific branches.

At first, it is necessary to select questions investigated by human ecology. The necessity of this scientific branch has arisen from the demand to know the dependence of individual and population human health on biosphere conversion. It is important to note that adaptation to the rapidly changing conditions causes the appearance of specific forms of health stresses, which are expressed in growing costs of physical and psychological reserves to prevent the pathological processes in human organisms [5].

It is very important to mention the contribution of Russian and foreign scientist in human ecology, which is expressed in promotion of the human ecology as a new interdisciplinary branch of science [4]. For example, such scientists as A. Peccei, A. King, J. Forrester and others, who were the representatives of "Club of Rome", identified the hazards of possible ecologic and demographic crisis, which may occur in the case of human impact on environmental issues. Besides, such Russian scientists as A.A. Gromyko and V.P. Lomeyko investigate effects of social problems and possible global conflicts on population health [6].

Concerning the necessity of medical geology, it is very important that this scientific branch combines and systematizes the databases of general ecology and medicine. The research area of medical geology covers the impact of geological subjects of the natural and technogenic origin on people's, animals' and plants' health.

Let us consider the range of questions that are investigated by medical geology. After comparing the situation of impact with the mechanism of impact scientists have revealed the dependence of the increase in the number of cancer, diabetes, skin and cardiovascular diseases among the population of Bangladesh, Thailand and Taiwan on the pollution of the groundwater by arsenic from the sulfide formations.

Also, it is important to remember that the contribution of Russian scientist is hard to overestimate. Due to studies of A.S. Golovin the concept of the geochemical endemicity has been confirmed, which is based on the individual geological characteristics of each region [2].

Additionally, investigations of geochemistry, mineralogy and medicine of areas and mining companies have been made by V.V. Kovalsky and A.K. Sagatelyan [1].

Besides, foreign scientists also have made their contribution in medical geology. The information about the influence of volcanic dust and gases on people's health has been obtained by medical professionals and geologists from MD Anderson Cancer Center Madrid. After the extrapolation of this information about technogenic systems of metallurgical companies the link between oncology and the certain group of elements has been confirmed [3].

Unfortunately, there are some problems that interfere in human ecology and medical geology to conduct some of researches. At the moment medical geology and human ecology are assessed only as supportive disciplines by the most of geologists and medical professionals. Such attitude causes the low interest in these disciplines, which does not allow using the majority of databases. The only solution of this problem is the cooperation between the scientists studying human ecology and medical geology all over the world.

In conclusion, it is important to note that problems of human health become more and more disputed. It means that in the nearest future such disciplines as human ecology and medical geology will become the most significant scientific branches, and the attention to these disciplines will allow dealing with the most part of problems concerned with human health.

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