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MODERN APPROACHES TO STUDYING THE ECOLOGICAL CONDITION

Annotatsiya: *Today, the geographical and political situation in the world is changing rapidly. In such conditions, the problems of regulating the impact of humans on the biosphere, harmonizing the interaction between social development and maintaining a favorable natural environment, and achieving a balance in the relationship between man and nature are becoming more and more urgent. At the current stage of development, solving a number of problems related to the interaction of man and nature is not limited to only one country. It is clear that many problems related to the protection of the natural environment from the harmful effects of human economic activities are gaining a large scale. The world community is also responsible for any problems and events of high importance in his life.*

Kay words: *Ecology, environment, ecological problems, "Green Space" anthropogenic, air pollution, factors, climate change.*

СОВРЕМЕННЫЕ ПОДХОДЫ К ИЗУЧЕНИЮ ЭКОЛОГИЧЕСКОГО СОСТОЯНИЯ

Аннотация: *Сегодня географическая и политическая ситуация в мире стремительно меняется. В таких условиях все актуальнее становятся проблемы регулирования воздействия человека на биосферу, гармонизации взаимодействия общественного развития и сохранения благоприятной природной среды, достижения баланса во взаимоотношениях человека и природы. На современном этапе развития решение ряда проблем, связанных с взаимодействием человека и природы, не ограничивается одной страной. Понятно, что многие проблемы, связанные с охраной природной среды от вредного воздействия хозяйственной деятельности человека, приобретают большой масштаб. Мировое сообщество также несет ответственность за любые проблемы и события, имеющие большое значение в его жизни.*

Ключевые слова: *Экология, окружающая среда, экологические проблемы, антропогенное «зеленое пространство», загрязнение воздуха, факторы, изменение климата.*

For reference: In Uzbekistan, in the field of ecology and environmental protection, a number of measures are being implemented to use the natural resource potential of the regions on a scientific basis, to improve the ecological

situation in geosystems, and to fight against various geoecological problems. For example, in the 79th goal of the "Development Strategy of New Uzbekistan for 2022-2026": "Elimination of existing ecological problems that harm the health and gene pool of the population", in the 80th goal "Protection of ecology and environment, improvement of the ecological situation in cities and districts" improvement, implementation of the national project "Green Space" and important tasks such as "...scientifically ensuring the solution of the problem of environmental protection"3 in the "Environmental Protection Concept" of the Republic of Uzbekistan until 2030 specified**.**

Analysis of literature on the topic. A number of scientists and specialists were engaged in geoecological evaluation of landscapes in the regions, formation and change of landscape-ecological conditions, geoecological problems and emerging negative landscape-ecological problems: among others, Risser Paul G., K. Troll, Yu. Odum, R. Dajo, R. Ricklefs, A.A. Krauklis, Y. Odum, T. Forman, M. Jamagne and others, from CIS scientists V.A. Kovda, N.A. Solntsev, A.G. Isachenko, V.A. Nikolayev, V.M. Chupakhin, G.V. Geldiyeva, A.A. Chibilev, L.G. Ramensky, V.N. Scientific research conducted by Sukachev, V.B.Sochava, F.N.Milkov, I.P.Gerasimov, A.N.Rozanov, V.S.Preobrazhensky, M.A.Pankov, A.M.Ryabchikov, D.L.Armand, L.I.Mukhina and others is of great importance.

In Uzbekistan, L.N. Babushkin and N.A. Kogay, A.A. Rafikov, A. Abdulkasimov, L.A. Alibekov, P. Baratov, S. I. Abdullayev, Sh. S. Zokirov, H. Vakhobov, A. N. Nigmatov, A. K. Urazbayev, S. B. Abbasov, Yu. I. Akhmadaliyev, A. Rakhmatullayev, N.K.Komilova, K.M.Boymirzayev, K.S.Yarashev, Sh.M.Sharipov, A.A.Nazarov, O.M.Koziboyeva, O.T.Mirzamakhmudov in the research works of landscape changes under the influence of active human economic activity, land reclamation, ecological condition, “anthropogenic load”, Factors and sources of aggravating environmental situations, soil, water, atmospheric air pollution, ecology and human health issues and other such issues are researched. Assessment of salinity level and ecological-ameliorative conditions

of soils in irrigated lands, and their improvement were carried out by Sh.M. Turdimetov, N.Yu.Abdurahmonov, V.Kh.Sherimbetov and others.

Many scientists and specialists were engaged in geoecological problems of the republic, as well as environmental education for students, industrial ecology. A.A.Rafikov, A.Soliyev, T.J.Jumayev, S.Sultonov, A.R.Roziyev, Yu.Shodimetov, A.Abdug'aniyev, A.Tokhtayev, Q.Abirkulov, A.Khojimatov, S.Daniyorov, Sh.Turdikulov from the existence of geoecological problems and natural resources they studied the issues of rational use and measures to prevent environmental problems in a wide range. But the works of the above and other scientists were mainly carried out within the framework of the republic. At the same time, the geoecological problems of the country are not sufficiently studied due to local conditions. In this regard, the work of the public in studying geoecological problems of the country and eliminating existing problems is of scientific and practical importance.

Atmospheric air pollution is mainly caused by carbon, nitrogen, sulfur oxides and dust, as well as by heavy metals, as well as the effects on the properties of vegetation, especially ornamental trees, the identification of harmful chemical elements in the waste toxic substances and scientific research aimed at reducing them is conducted by the world's leading scientific centers and higher education institutions, including the University of Birmingham (Britain), Fukui Prefectural University (Japan), Central South University (China), University of Maryland (USA), Yonsei It is being implemented at the University of Seoul (Korea). In the CIS countries, extensive research has been carried out to study the importance of ornamental trees in reducing the release of harmful substances from industrial enterprises and motor vehicles into the environment and the impact on living organisms (Polinskaya et al., 1979; Siganyok, 1988; Pakalov, 1994; Silveira , 2005; Shilin, 2011; Roshupkin, 2011 et al.).

Through research on the atmospheric air of specialists, the density and type of traffic in the city, pollution with harmful substances related to fuel types, the spread of gas fumes, testing several types of ornamental trees, and studying them

at the level of regional and global research. made important contributions (A Alfani, 2000; Shrawan Singh, 2007; Qiushuang Li, 2011; Alexander Afanasev, 2017; et al.). Musin R.I., Aliyev R.R., Tolkacheva G.A., Azizova R.G. and a number of other scientists have conducted many studies. Plants in the area of influence of Almalyk TMK and

Almalyk chemical plant were the objects of research. The main phytotoxic components of the atmospheric emissions of these enterprises are sulfur dioxide, hydrogen fluoride, ammonia, which prevent the normal functioning of the photosynthetic apparatus of plants. Scientists of our republic have carried out important work on studying the effect of atmospheric air on fruit and ornamental trees (Norboyev N.N., Zakirov D. Yodgorova D.SH., Ismailkhodzhayev B.SH., I.Samatov I.M., Rakhimova T.U., Samatov I.M. and others). Despite the long-term experience of ecological research in studying the effects of environmental pollutants on plant cover, interest in this topic has not lost its vitality.

D.N. Kashkarov, S.A. Sevyertsov in the development of general ecology; in ecological parasitology V.N. Beklemishev, V.A. Dogel', Ye.N. Pavlovsky; in environmental entomology G.A. Viktorov, A.S. Danilevsky; in the ecology of hydrobionts V.V. Vasnetsov, N.A. Gerbil'sky, K.M. Dyeryugin, L.A. Zenkevich, S.A. Zyernov; in plant ecology I.G. Syerebryakov, Ye.P. Korovin, K.3. Zakirov and other scientists made great contributions. In the field of ecology in Central Asia, D.N. Kashkarov, Ye.P. Korovin, M.G. Popov, K.3. Zokirov, I.I. Granitov, T.3.Zokhidov, A.T.Tolaganov and others carried out great scientific works.

A group of scientists participated in the development of ecological physiology. Drought resistance of plants N.A. Maksimov, Yu.S. Grigor'ev; K. A. Ivanov on the effect of light; ecology of photosynthesis by V.I. Lyubimenko, A.A. Nichiporovich, O. V. Zalensky, V. A. Voznesensky; radiation resistance of plants G.A. Genkel'; cold resistance was studied by I.I. Tumanov and others. Also, services of L.G. Ramensky, A.P. Shennikov were great in the development of ecology. English population ecology scientist Ch. Developed by Elton (1930). He said that it is necessary to move from the study of certain organisms to the study of

populations. Because adaptation processes take place at the population level, that is, they are clearly manifested.

S. A. Sevyertsov, S. S. Shvarts, N. P. Naumov, P. A. Viktorov, V. N. Sinskaya, T. A. Rabotnov and A. A. Uranov made a great contribution to the development of population ecology.

Research methodology. In writing this article, the scientific works of foreign and CIS scientists and researchers who carried out their scientific work in various fields of plant development in Uzbekistan were used. Also, the development of the field of ecology, the impact of the environment on living organisms was analyzed by the author.

Analysis and results. Nature is a unique complex system, and man and society are its derivatives. It exists and develops at the expense of nature. Man satisfies his needs at the expense of nature. It receives air, water, food, mineral and fuel raw materials from nature and exerts its influence on nature during its life activity. As a result, new objects alien to nature are created. These are: cities and villages, plants and factories, roads, mines, reservoirs, agricultural land, etc. Such anthropogenic landscapes, created by human intelligence and work, will not fail to show their influence on the surrounding natural environment. The rapid growth of the population on the earth, the rapid development of science and technology, the uneven distribution of natural resources on the territory of the countries require the maximum possible use of the available natural resources and, in this way, the acceleration of the development of society. As a result, the laws of interaction between nature and man are violated. Violation of these laws will sooner or later lead to an ecological crisis.

Nowadays, the environmental situation in the whole world worries many people alike. Ecological destruction is taking a terrible shape before our eyes. Issues of environmental protection and effective use of available natural resources remain relevant. It has become known that the cause of the current ecological crisis and the one who gets rid of it with his intelligence is Man. Protection of the environment from pollution, economical use of natural resources depends to a

large extent on the level of ecological literacy and ecological culture of mankind, regardless of the society in which people live. To solve environmental problems in our republic, increasing the environmental literacy of the population is one of the most important tasks.

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