
LANDSCAPE DOCTRINE AND ITS IMPORTANCE IN THE SCIENTIFIC AND PRACTICAL STUDY OF NATURAL RESOURCES OF REGIONS

Ergasheva Mavjuda Komiljonovna

The supportive doctorate of

Toshov Khudoynazar Ramazonovich

Associate Professor, Department of Geography and Land Sphere

Rakhimov Olim Khamitovich

A Doctorate of Santiago de Compostela, Spain

Bukhara State University

Abstract: The article deals with the creation and development of landscape education, issues related to the scientific and practical study of natural resources of the region.

Key words: I.Q.Nazarov, F.Xolboev, A.Xolliev, Yo.Hayitov, H.Artikova, U.T.Norboeva, H.K.Esanov, R.R.Rahmonov, A.R.Rayimov, X.R. Toshov, A.M.Mavlonov, H.To'xtaeva, M.A.Oripov, D.Sh.Yavmutov, G.R.Khidirova, Yo.D.Kholov, G.S.Khalimova, A.Rasulov, S.Nazarova, Bukhara region, Bukhara oasis, Karakul oasis, geography, biology, soil science, economics, landscape, landscape education, resource, resource studies, geographical synthesis, desert-pasture, desert-oasis, conceptual model, "natural, economic and ecological key", natural disaster, "sandstorm", "green shield", drip irrigation, Karakir, Janam, Khadija, artificial - "throw" lake.

I. Introduction

Today, the scientific and practical study of natural resources on the basis of landscape teaching has become a requirement of the time. Because the origin, scale, quality, location, and finally the compatibility of natural resources have a natural geographical basis. Therefore, the study of natural resources on the basis of regional

geographical synthesis is the most effective and promising way to approach the issue from a historical, ecological and economic point of view.

The main purpose of the work. The period has shown that the creation of the doctrine of landscape will be the methodological basis for the efficient use of natural resources of regions. In particular, the research work carried out since the years of independence of the Republic of Uzbekistan is an example of this. This, in turn, necessitates the further development of the emerging field of "landscape resource studies". Research in this area can be considered as a new stage in the development of landscape science and its ultimate goal. Landscape education plays a "natural, economic and ecological key" in the effective use of natural resources of Bukhara region, located in the south-west of Uzbekistan, in improving the geo-ecological conditions of the region. Research in this area has been carried out by landscape scientists, monographs and textbooks have been published.

The main part

As a result of the development of the "nature-man (society)" relationship over the centuries, the concept of material and intangible benefits, referred to as "resources", has emerged.

Today, resources are being studied through the general field of resource studies. It is the object of study of many disciplines [7]. This important aspect is reflected in the work of scientists conducting research in the field of geography, biology, agriculture and economics.

It should be noted that the main basis of resources is natural resources. Although natural conditions and natural resources have been used by "man-society" for centuries, the term "natural resources" and its scientific interpretation appeared in the second half of the twentieth century [1].

The concept of "natural resources" has a historical meaning, and human demand for natural resources has varied in different periods. The increase in population and living standards, as well as technical equipment, has led to a shift from "low resource use" to "high resource use." At the present time, humanity is using all the chemical elements included in the Mendeleev periodic table, as well as creating chemical elements and objects that do not occur naturally in nature. This process will continue.

Natural resources vary in type, size and quality. Therefore, scientific advice on their scientific study, evaluation and rational use should have a general meaning.

The scientific study of natural resources was carried out first by the natural sciences and then by the economics. Natural resources are studied as a concept (category), "economic", "socio-economic" [6].

Over the years, it has been proven in daily practice that there are a number of shortcomings in the scientific study of natural resources. Because natural resources do not occur separately in the desired area, but they are interconnected, manifested in a complex way. For example, the climate, water, land, mineral and biological resources of the region.

The one-sided consequences of the use of natural resources have been clearly demonstrated in the scientific research of scientists in the use of nature in Bukhara region. In particular, the area of Bukhara region is 40.3 thousand square km. Located in a naturally geographically desert zone. According to the level of development in its territory, there are 2 zones - desert-pasture and desert-oasis. Over the years, the use of natural resources in the deserts and oases of the region has created many environmental, economic, social, biological and geographical problems. In particular, desert landscapes show various manifestations of desertification, such as sand migration, biodiversity loss, chemical pollution, and in oasis landscapes, secondary salinization, decreased productivity [3]. Of course, over the past twenty years, Bukhara State University has conducted about 30 research projects in the field of efficient use of climate, water, land and biological resources of the region. F.Xolboev, A.Xolliev, Yo.Hayitov, H.Artikova, U.T.Norboeva, H.K.Esanov, R.R.Rahmonov, A.R.Rayimov, X.R.Toshov, A.M. Biology, geography, soil science of such scientists as Mavlonov, H.Tukhtaeva, MAOripov, D.Sh.Yavmutov, G.R.Khidirova, Yo.D.Kholov, G.S.Khalimova, A.Rasulov, S.Nazarova and his work in the field of economics is an example of this [7; 8; 10]. At present, research in this area is effective in the fields of geography (M. Ergasheva, A. Kadyrov, N. Toshbekov), soil science (N. Khakimova, O. Umarov), biology (Z. Boltaeva), economics (O. Rahimov) continues.

Most of the above completed or defended scientific research has been conducted within one or two components of the desert or oasis landscapes of Bukhara region. On the other hand, only one of the landscape components has been identified and evaluated as a resource. However, if, as described above, each landscape is a whole resource complex, secondly, the components of the desert or oasis landscapes of the region should be studied and evaluated in close connection with each other rather than separately.

One of the main problems today is the development of the scientific direction of "landscape resource studies", which emerged on the basis of landscape doctrine in the rational use of natural resources of Bukhara region; the second is to study the

natural resources of the region at the level of "combination" of desert-oasis landscapes [3].

Abiotic currents play a key role in the existence of desert-oasis landscapes. The main sources of abiotic migration of substances are atmospheric precipitation (washed from plants and with their constituent substances, including man-made wastes); solid rock particles and salts migrated by winds. It is also an abiotic flow to enter or exit the landscape with surface and groundwater. This issue was first studied by the well-known Uzbek geographer I.Q. Nazarov (1992). The researches of H.R. Toshov, G. S. Halimova, D. Sh. Yavmutov on local water resources are known.

It is well known that wind is a powerful factor in the entry and exit of abiotic matter in natural geographic complexes. The removal of various solid particles from natural geographic complexes is particularly noticeable in arid climates such as the Central Asian plains. For example, during a dust storm that once occurred in sandy deserts, depending on its strength, up to 10 tons of dust particles per km², up to 100 tons of dust particles were released from the areas of gray loess and loess deposits.

In the plains of Central Asia and Kazakhstan, such dust storms are not uncommon, but frequent. For example, in the central regions of Turkmenistan it occurs 40-50 times a year, in the south-eastern Karakum 60-70 times, in the foothills of the Syrdarya (Red Horde) 133 times, near the foothills (for example, in Jambul) 13 times (M.A. Orlova, 1983). The average thickness of such dust storms reaches 1.5-2 km. In most cases, the warm air mixed with dust rises to a height of 6-7 km and with the air currents in the eastern direction drops dust particles in the Western and Central Tien Shan, Pamir-Alay mountains. Calculating the migration of abiogenic substances under the influence of winds is a bit more complicated than determining the amount of water runoff. For this reason, such data are rare in the geographical literature, and those that do exist are more approximate.

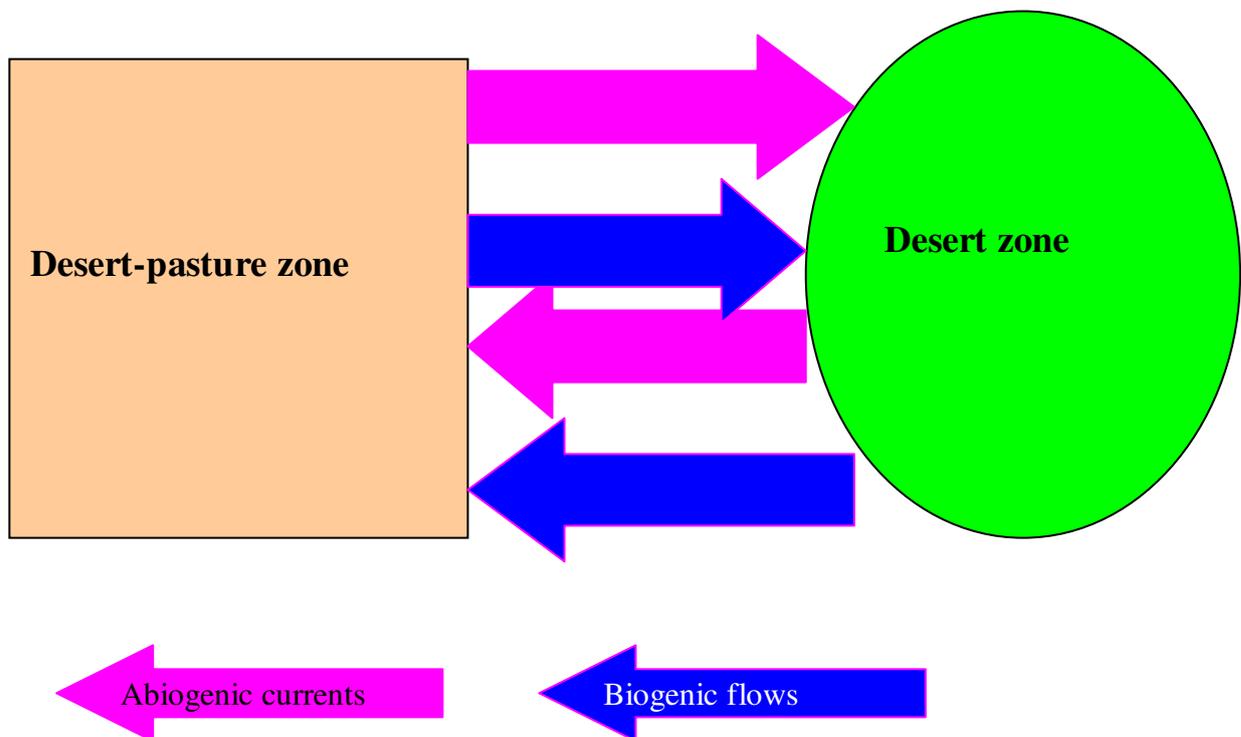
Geographer N.F. Glazovsky (1986) studied the migration of matter in the lower part of the troposphere, especially near the Earth's surface, and found that 0.3 to 3.0 billion tons per square kilometer of 3 million km² per year in Central Asia and the plains of Kazakhstan; determined that 100 to 1,000 tons of dust particles would rise into the air from the field. It is not known how much of the matter remains in that country (plains), how much of it passes into other natural geographic complexes.

The removal or entry of various water-soluble chemicals, including various salts, which occur in natural geographic complexes, is also a significant part of abiotic substance migration. According to some estimates, the mass of the substance dissolved in water and flowing into the world's oceans with river water is estimated at 2.5 to 5.5 billion tons per year.

According to our geographers E.I. Chembarisov and B.A. Bahritdinov (1985), who studied the hydrochemistry of river waters and ditches in Central Asia, in 1938-1971 the salinity of water in the Syrdarya (near the Red Village) ranged from 0.54 g / l to 0,92 g / l, in the Chirchik River from 0.31 g / l to 0.44 g / l, and in the Zarafshan River to 0.2 g / l. In the Amudarya, the salinity of water increased from 0.46 g / l to 0.56 g / l.

According to another article by these authors (1988), in 1987, 258.1 thousand hectares of land were irrigated in the Bukhara oasis. The total volume of irrigated water was 3.54 km³, which carried 3.94 million tons of lightly soluble salts. These salts are distributed by administrative districts as follows (in thousands of tons). Alat district - 216, Bukhara district - 462, Vobkent district - 333, Gijduvan district - 573, Kagan district - 260, Karakul district - 562, Peshku district - 364, Romitan district - 491, Sverdlovsk (now Jondor) district - 452, Shafirkon district - 449.

Some of these salts entering the irrigated lands were discharged by ditch water with a volume of 1.56 km³ / year (average mineralization of ditch water was 4.34 g / l). Thus, up to 6.8 million tons of lightly soluble salts were extracted annually by drainage water. The water and salt balance in the oasis is negative, except for the salt balance in Vobkent, Gijduvan and Peshku districts. Substance migration in the desert and pasture zones of Bukhara region can be imagined on the basis of the following model (Picture 1). This clearly represents the "combination" of deserts and pastures.



Picture 1. Conceptual model of the relationship of desert landscapes of Bukhara region

Today, the study of the potential of landscape resources directly related to agriculture is being continued by researcher O.H. Rakhimov. Especially important are the scientific recommendations of O. Rakhimov on the economic importance of "drip" irrigation in the use of land and water in arid climates of Bukhara oasis [4, 5]. Agro-opportunities also have tangible and intangible content. For example, if the climatic conditions in the desert zone are unfavorable, local water and pasture opportunities are material. The climate in the oasis has similar characteristics.

In the geo-ecological conditions of desert-oasis geosystems, deserts are "leading" and oases are "dependent" on them. This process is still ongoing. An example of such a connection to the nature of the desert is the natural disaster that occurred on April 27, 2020. Due to the strong wind blowing from the desert zone, arable lands and settlements in the Karakul oasis (Alat and Karakul districts) were severely damaged. The above cases have also been reported in the direct desert areas of the Bukhara oasis (Jondor, Romitan, Peshku and Bukhara districts). Large amounts of sand particles, salts fell on the crops. The fruit trees in the orchards were badly damaged, and even the leaves of trees such as apricots, peaches, and apples were blown away by the wind. Of course, the winds are the companions of the desert. Its speed also depends on the ratio of air temperature in the desert, the fact that the desert (saksoul, sugarcane, etc.) is covered with forests. These forests can be a "hole" in the wind path. Now the air temperature in both regions rose from a record 310 to 380 in April. The area occupied by plants in the "green shield" around the oasis has also been reduced.

Today, the human factor is also becoming increasingly important in desert-oasis relations. This is due to the fact that the Amu-Bukhara canal continues to be flooded, swampy, saline, and chemically polluted in the desert-pasture landscapes of the region due to flood waters. Examples of such lakes are Karakir, Janam, and Khadija.

Through the above, we have witnessed many natural, economic and environmental problems in the region. In overcoming them, the organization of scientific work of relevant researchers on the basis of landscape education serves as the main basis for creating opportunities for efficient use of natural resources.

Conclusion

1. The integration of disciplines is ensured through the general direction of resource management.

2. In accordance with the teachings of the great soil scientist V.V. Dokuchaev, who created the scientific and ideological basis of the doctrine of the landscape, another principle "landscape - a whole set of resources" was proved.

3. The scientific research of Bukhara researchers has proved that landscape education has played the role of "natural, economic and ecological key" in the effective use of natural resources of Bukhara region, improving the geo-ecological conditions of the region.

4. In the geo-ecological conditions of desert-oasis geosystems, deserts are "leading" and oases are "dependent" on them, the idea of which remains the basis of all scientific research.

References:

1. Lemeshev M.Y. Nature resources and natural resources. The land of people. Issue 5. Knowledge. 1983 .-- 107 - 120 pp.
2. Nazarov I.K. Abiogenic flows in arid geosystems: optimization of nature management. (Based on materials from the lower part of the Zarafshan River). Tashkent, "Fan", 1992.-101 p.
3. Nazarov I.K, Toshev H.R. Landscapelar Resource Shunosligi. Ўzbekiston geography of zhamiyati akhboroti. 23-cell Toshkent, 2003.18-20 pp.
4. Rahimov O. et al. Considerations on water resources management in Central Asia //Spanish Journal of Rural Development. – 2010. – Т. 1. – №. 2. – pp. 51-59.
5. Rakhimov O. K., Khamidov O. H., García T. S. C. Improvement And Modernization of Agricultural Irrigation. Uzbekistan Case Study //European Journal of Agriculture and Food Sciences. – 2020. – Т. 2. – №. 4.
6. Reimers N.F. Nature management. М .: "Mysl", 1990. - 637 p.
7. Tashov Kh.R., M.K.Ergasheva Content and significance of primary works on fine geography. Экономика и социум. Журнал. ISSN 2225-1545 №:9(76). 2020. 71-74 pp.
8. Tashov Kh.R., M.K.Ergasheva Evolution of landshape teaching and its theoretical fundamentals. academia South asian academic research journals. Kurukshetra india. ISSN 2249-7137 Vol. 10 Issue 5, Vol. 2020 impact Factor SJIF 2020 = 7,13 pp. 942-945
9. Ergasheva M.K.. Learning and using landscape resources. MONOGRAFIA POKONFERENCYJNA SCIENCE, RESEARCH, DEVELOPMENT № 28
10. Ergasheva M.K. Stages and prospects for the development of landscape science at Bukhara State University. "Economy and Society" №4 (71) Russia. 2020.1041-1046 pp BAKU.2020. pp.127-128

11. Qodirov A.A., Allayorov I.Sh., Toshov X.R. The process of desertification in the oases and innovative methods of their elimination (on the example of Bukhara region). Proceedings of the International scientific-practical conference "Problems of desertification: dynamics, evaluation solutions." (December 18, 2019. Samaqand).