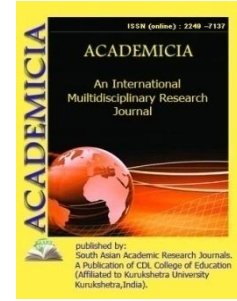




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## CHANGES IN THE CITIES OF THE FERGANA VALLEY AND ITS SURROUNDINGS UNDER THE INFLUENCE OF ANTHROPOGENIC FACTORS

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### ABSTRACT

*The article describes, in detail, the changes in the cities and suburban landscapes of the Fergana Valley under the influence of anthropogenic factors. Innovative mechanisms and means of ecological waste utilization in the Fergana Valley, primarily due to changes in the human factor, are illustrated by examples of region cities.*

**KEYWORDS:** *Extensive Development, Natural-Anthropogenic, Pasture Landscapes, Anthropogenic Landscape, Geosystems, Atmospheric Air, Ecological-Geographical, Utilization, Innovative Mechanisms, Bioecological Research, Agro-Industrial*

### INTRODUCTION

Now, under the influence of the human factor, more than 60% of the valley area has the appearance of anthropogenic and natural-anthropogenic landscapes. All this is due to the rapid population growth in the valley, the extensive development of agriculture, the availability of access to water resources, ease of access to mineral resources, and more.

The idea of preserving natural landscapes in the steppes, deserts, hills, mountains, pastures and others at altitudes from 350 meters to 4,000 meters above sea level, as well as the intensive use of existing anthropogenic landscapes and the development of each sector of the economy in each vertical region. It is promoted by Rafikov and AA Nazarov (2002). This idea allows to

scientifically and practically protect the ecological and geographical basis of plain, foothill and mountain geosystems in the Fergana Valley [1].

### **THE MAIN FINDINGS AND RESULTS**

The natural landscapes around the cities of the Fergana Valley are changing significantly under the influence of anthropogenic factors. In this regard, Kyrgyz geographers S. Ergashev et al. (S. Ergashev et al. 2002).

The idea put forward by I. Abduganiev (1995) emphasizes the need to pay more attention to the types of trees to be planted in order to improve the atmosphere of cities. The main focus should be on the ability of trees to absorb dust, various odors, toxic gases, as well as the ability of different types of trees planted side by side to aspire to the sky.

This idea should be put into practice as soon as possible. Because today the level of air pollution in the cities of the Fergana Valley is very high. Implementation of this idea will also lead to the greening of highways and the establishment of sanitary protection zones around industrial enterprises [2].

Local geographers, including Yu.Sultonov (1965, 1974, 1995, 1999, 2000, 2001), I.Abduganiev (1995, 1999, 2000,) on the current ecological and geographical condition of natural and anthropogenic landscapes of the Fergana Valley and their optimization. 2001), K.Boymirzaev (1995, 1999, 2001, 2002), A.Nazarov (2001, 2002) O.Abdullaev (1995, 1999, 2001, 2002), A.Hamidov (1995, 1999, 2001, 2002), R.Khalikov (1989, 1995, 1999, 2001, 2002) and many other scientists are engaged. They expressed their natural geographical and geo-ecological ideas, opinions and views on improving the geo-ecological situation in the region. This system of views and measures was widely covered in the materials of the Republican scientific-practical international conference on the ecological situation, nature and rational use of natural resources of the Fergana Valley, held in 1995 and 1999 in Fergana and 2001-2005 in Namangan [3].

In general, natural geographical, geocological and bioecological researches in various landscapes of desert, hills, mountains and pastures of the Fergana Valley and as a result of these researches the system of directions and measures on improvement of geocological condition and rational use of its nature Yu.Sultonov 1995, 2001; I.Abdug'aniev 1995, 2001; K.Boymirzaev 1999, 2001; O.Abdullaev 1995, 2001; R.Kholiqov, A.Qozoqov 1995, 2001; A.Hamidov 1995, 2002; A.Nazarov 1999, 2001; S. Ergashev 1995, 2002, etc.)

It is time to develop plans and programs at the level of regional administrations for 3-5-10 years to further reduce air, water, soil pollution by industrial and transport wastes, losses of plants and animals due to anthropogenic factors, solid waste disposal. At the same time, all enterprises polluting the air and water basins in the region will be provided with the latest advanced gas, dust and sewage treatment plants or reconstruction of some old industrial enterprises on the basis of a new project to reduce emissions by at least half and then 75%. , implementing a plan to reduce it to 90% in the futurAs the territory of the Fergana Valley develops economically on the path of agro-industrial development. Therefore, the geo-ecological condition of the area is determined on the basis of the above natural geographical and geo-ecological views, ie lithological, geomorphological, soil thickness, salt-gypsum, lithological composition of the soil, relief slope in irrigation, depending on the plains, hills and foothills. especially in the foothills and foothills) and others. Efficient use of area water, development of modern methods of

irrigation technology (appropriate to local conditions), to pay as much attention as possible to prevent all types of soil erosion, and at the same time pay great attention to nature protection in industry, construction, transport, utilities, , developing and implementing rational ways of using its resources and, most importantly, raising the environmental awareness, literacy and culture of the population are the most necessary and necessary measures today's is becoming a topical task today.

Based on the above scientific sources, summarizing the views, we present in Table 3.3 the dynamic development of researchers in the field of nature protection and rational use of natural resources in the Fergana Valley, who were directly involved in the development of their geoeological basis. In conclusion, it can be explained that the issues of nature protection, rational use of natural resources, reclamation should be carried out not on the political-administrative border, but on the natural geographical border. A typical example is the Fergana Valley.

Changes in the natural environment and aggravation of geo-ecological conditions in the Fergana Valley are due to its geographical location, specific natural geographical conditions and factors, existing regional and local laws and regulations, stability, variability of natural complexes, description of economic activity, development characteristics of production. depending on.

The main logical features that give rise to the geoeological significance of natural geographical research in the valley area are first seen in the following:

- The composition of various natural and natural-anthropogenic landscapes in the highlands, such as deserts, hills, mountains and pastures, the use of relief and mountains;
- In the use of surface and groundwater in the current market relations;
- In the process of using climatic resources;
- In the use of soils in agriculture and agriculture in general;
- The use of plant and animal resources and their extinction or reduction of habitats;
- In industrial production, use of resources;
- In the development of transport, construction, utilities, etc.

Industrial production is associated with the generation of large amounts of waste. These are solid, liquid, gaseous wastes, some of which are toxic. The generation of hazardous waste is often due to incomplete improvement of production processes. Household waste generated in human life is increasing in quantity. Therefore, it is worthwhile to divide the waste into two groups according to their origin and study them in this direction.

Waste as a secondary resource is becoming an increasingly global problem not only in the valley area but around the world, while it has become an even greater regional problem within the nation-state, and a serious local problem in some cities.

We have put forward concepts by local scientists in order to prevent and solve the geo-ecological problems that have been formed over the years. Now the main issue is to put it into practice [5].

## CONCLUSION

In conclusion, it should be noted that life itself proves that the need to work at the level of natural geographical boundaries, rather than political-administrative boundaries, in assessing its geo-ecological significance in the development of geo-ecological bases of rational use of natural resources.

Uzbekistan, Kyrgyzstan and Tajikistan need to work together to solve geo-ecological problems in the Fergana Valley. The fact that each of these republics is developing on the path to its own independence does not allow us to solve many geo-ecological problems together, for which there are specific objective and subjective reasons. It is difficult to imagine the geoecological significance of complex research in the Fergana Valley without the joint action of these republics. Because the people living here have the same territory, the same religion, the same water, the same soil, the same culture, the same worldview.

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