



Green University



O‘ZBEKISTON RESPUBLIKASI OLIY TA‘LIM, FAN VA INNOVATSIYALAR VAZIRLIGI
BUXORO VILOYAT EKOLOGIY, ATROF MUHITNI MUHOFAZA
QILISH VA IQLIM O‘ZGARISHI BOSHQARMASI
BUXORO DAVLAT UNIVERSITETI
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UI GREENMETRIC – XALQARO REYTING AGENTLIGI

IQLIM O‘ZGARISHI SHAROITIDA CHO‘L – VOHA
EKOSISTEMASI: MUAMMOLAR VA YECHIMLAR
MAVZUSIDAGI XALQARO SIMPOZIUM

MATERIALLARI



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Respublikada “yashil iqtisodiyot”ga o‘tish zaruratini yana shu bilan asoslaymizki, mamlakatda energiya ishlab chiqarish deyarli to‘liq uglevodorodlar (neft, tabiiy gaz, ko‘mir)ni ishlab chiqarishga bog‘liq bo‘lib turibdi. O‘zbekistonda uglevodorod energetikasidan foydalanish hisobiga har yili yalpi ichki mahsulotning o‘rtacha 4,5 foizini yo‘qotmoqda. Xalqaro amaliyotga nisbatan mamlakat iqtisodiyoti energiyatalab va uglerodtalab sanaladi. Respublika YaIMning energiyatalabligi bo‘yicha dunyodagi yetakchi o‘n davlatdan biri sanaladi. Shu sababdan “yashil iqtisodiyot”ga o‘tish o‘z navbatida “yashil energetika”ga o‘tishni talab qiladi va O‘zbekistonda muqobil energetika tizimining shakllanishi ob'ektiv zaruratdir.

Yashil iqtisodiyotga o‘tish zaruratining yana bir muhim zarurati shuki, respublikadagi energiya ishlab chiqarish va yetkazib berish quvvatlarining 40 foizga yaqini ma‘nan hamda jismonan eskirgan. Tadqiqotlar ko‘rsatadiki, mamlakatdagi elektr energiyasi tarmoqlari aksariyat qismi 30 va undan ortiq yildan buyon foydalanib kelinmoqda.

Mamlakat va uning mintqalarida “yashil iqtisodiyot”ga o‘tishning yana bir zarurati bu atrof-muhit muhofazasi masalasidir. Yashil iqtisodiyot tabiiy resurslardan samaraliroq foydalanishni rag‘batlantirish hamda chiqindilarni va atrof-muhit ifloslanishini kamaytirish evaziga ishlab chiqarilayotgan mahsulot birligiga nisbatan tabiiy resurslar iste‘molini kamaytirishga yordam beradi. Bu tabiiy resurslardan foydalanishda ekotizimlarning uzoq muddatli barqarorligini ta‘minlashga yordam beradi.

Xulosa qilib aytganda, “yashil iqtisodiyot”ga o‘tishning dolzarbligi va zarurligi quyidagilar bilan belgilanadi:

- atrof-muxitning ifloslanishi va tabiiy resurslar tugashining salbiy oqibatlarini kamaytirish maqsadida iqtisodiyotda texnologik modernizatsiyalashni amalga oshirishni zarurligi;
- uglevodorod xom-ashyosi va uning pirovard mahsulot qiymatidagi ulushiga bog‘liqligini qisqartirish asosida iqtisodiyotning raqobatbardoshligini oshirish zarurligi;
- katta multiplikativ samaraga ega bo‘lgan yuqori texnologiyali tarmoqlarni yangilash imkonini beruvchi Yashil innovatsiyalarni qo‘llash muhimligi;
- past uglerodli iqtisodiyotga o‘tish jarayonida uglevodorodga bog‘liqlikni qisqartirish dolzarbligi.

THE INFLUENCE OF KYZYLKUM WINDS ON THE ENVIRONMENT OF BUKHARA CITY

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Annotation: The article discusses the role of the Kyzylkum winds in the history of Bukhara, the damage caused to the economy of the region and the measures taken by the rulers and the local population to protect against wind losses. The city of Bukhara is located in the middle of the desert. For this reason, winters and summers are very cold, or vice versa. While wind causes great destruction when it is dusty, desertified, and strong, it also acts as a catalyst in ensuring the purity of city air.

Key words: Bukhara, Kyzylkum desert, wind, Abubakr Narshahi, Sadriddin Ayni, sand migration, Kampirak (Kampir) wall, Eugene Skyler, “Turkistan: Notes of a journey in Russian Turkistan, Khokand, Bukhara and Kuldja”, “Green shield” project.

Samarkand and Bukhara of Central Asia always attracted Western countries. People often liken Bukhara to paradise in the desert. Most part of Bukhara consist of Kizilkum desert⁶. The main 88.6% of Bukhara is desert, the rest is in Bukhara, Karakul and Karavulbozor oases. The

⁶ Ричард Нельсон Фрай. [Бухара в Средние века](#). (На стыке персидских традиций и исламской культуры). (пер. [О. И. Апикова](#)). Центрполиграф, 2016. Б 4.

fact that Bukhara is located inland, directly in the desert region, has a strong influence on the formation of the urban climate. The climate is sharply continental.

The role of winds in the region is unique. While wind causes great destruction when it is dusty, desertified, and strong, it also acts as a catalyst in ensuring the purity of city air. Therefore, we see that the construction of streets in ancient Bukhara and the direction of the wind were taken into account in the construction. As the winds of Bukhara blew mainly from the north and east, the streets in the old part of the city were narrow, and the houses were built from north to south. As a result, the narrow street squeezed out the wind, the air was constantly changing, frequent due to the rapid movement of the wind, and ensured the cleanliness, purity of the air.

The freshness, airiness and fragrance of Bukhara and its villages are often mentioned in the work of Bukhara historian Abubakr Muhammad ibn Jafar Narshahi, known as "History of Bukhara". In particular, it is noted in the play that Amir Ismail had been ill for some time, and that the doctors had taken him to the village of Zarmon, which was his own property, saying, "The air of the place is pleasant"⁷.

There are also many cases where the winds have damaged the area. The Kyzylkum desert has always threatened the Bukhara region with its warm and strong winds. The winds blowing from the Kyzylkum desert sometimes turned into strong storms, causing great damage to the prosperous areas of the oasis. As a result, the region's economy, agriculture and population were severely damaged. Sometimes it took less than a quarter of a century to restore the damaged areas. Turning to the sources, Sadriddin Ayni describes in his memoirs that the sandstorms of the Kyzylkum moved to the Shafirkan area in the late 19th century. The gardens and orchards of Baghi Afzal and Tezguzar villages, the orchards of Karayogoch village, the northern part of Dehnavi Abdullajon, part of Muhammad Boki village and Kochihorlan village are completely covered with sand. The sand attack, they said, reached as far as Sayidato and Vardonze castles⁸. A strong sandstorm that lasted only a few hours destroyed the prosperous lands and gardens, courtyards, canals and pools of several villages and left them under the sand. Such events were considered a companion of the Bukhara oasis. "We made it to Boloi Rod village, which is north of Mahallai Bolo village. Until last night, the village, which was wetter and more milled than all the other villages on the banks of the river, was completely covered with sand"⁹. The above idea clearly shows the consequences of sand migration.

It is known from history that from ancient times the Bukhara oasis was surrounded by a wall of Kampirak (Kampir) with a length of about 250 km. In addition to protection from external enemies, the wall undoubtedly served as a protection from the sandstorms of the Kyzylkum Desert.

During the reign of Amir Ismail Somoni, the annual repairs of the walls were suspended after military raids on the steppes. It is true that this reform had a positive effect for that period, but the negative consequences of its comprehensive and powerful impact were later manifested. First, the event showed the failure of public policy aimed at embracing nature and man. Second, the oasis was manifested in the degradation of its irrigated lands. This, in turn, led to an economic crisis at the end of the Samanid rule. Third, the desertification of the oasis is intensifying. The desert has reportedly swallowed some of the western regions of the oasis¹⁰. This process is confirmed by medieval historians, including Narshahi.

Eugene Skyler, an American scientist and diplomat who traveled to Central Asia in 1873, including the Emirate of Bukhara, confirmed the aggression of the Bukhara winds in 1876 in his

⁷ Наршахий. Бухоро тарихи. – Т., Камалак, 1991. Б.5.

⁸ Садриддин Айний. Танланган асарлар. 1-2 қисм. – Т., Тошкент, 1965. Б.29.

⁹ Садриддин Айний. Танланган асарлар. 1-2 қисм. – Т., Тошкент, 1965. Б.27.

¹⁰ Ричард Нельсон Фрай. [Бухара в Средние века](#). (На стыке персидских традиций и исламской культуры). (пер. [О. И. Лапикова](#)). Центрполиграф, 2016. С-76.

book "Turkistan: Notes of a journey in Russian Turkistan, Khokand, Bukhara and Kuldja" published in London. He travels from Karshi to Bukhara on horseback, noting that during his trip he suffered from sand particles due to the constant wind and was in danger of getting lost in the strong wind.

In order to reduce the destructive effects of the Kyzylkum winds, the struggle began in the 1920s. As a result, by 1941, a 120-kilometer-long and 1-3-kilometer-wide "Green Shield" protective wall was built around the Bukhara oasis (in the north and northeast of the region). The forest, which consisted of saxaul, candy, cherkez, and yulgun, served as a green wall¹¹.

The Green Shield project continues today. In particular, the concept of socio-economic development of the Republic of Uzbekistan until 2030 provides for the implementation of the project "Green Shield" in the medium term (2019-2025) to create desert trees and shrubs that protect the arable lands adjacent to the Kyzylkum¹².

In short, the Kyzylkum winds provide air exchange in Bukhara. The city air is constantly renewed under the influence of wind.

Avoiding the destructive power of wind and taking measures to reduce its impact is an important factor for the region's economy, agriculture and, most importantly, the health of people living in the area.

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¹¹ Назаров И.К., Аллаёров И.Ш. Бухоро географияси. – Б. 1994.

¹² [Electronic source] - URL:<https://regulation.gov.uz/uz/document/9413>

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