



**“YASHIL IQTISODIYOT VA BARQAROR
RIVOJLANISHNING DOLZARB MUAMMOLARI VA
YECHIMLARI” MAVZUSIDA
XALQARO ILMIY-AMALIY ANJUMANI**

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“YASHIL ENERGETIKA”NI RIVOJLANTIRISH ISTIQBOLLARI <i>Rasulova Nigora Nematovna, Xamrayeva Shaxzodabonu Qurbonjonovna</i>	55
O‘ZBEKISTON DAVLAT DASTURIDA EKOLOGIYA SIYOSATI <i>Rasulova Nigora Nematovna, Nasirova Vazira</i>	57
MINTAQAVIY EKOLOGIK MUAMMOLAR VA ULARNI BARTARAF ETISHDA YASHIL TEXNOLOGIYALARDAN FOYDALANISH (BUXORO MINTAQASI MISOLIDA) <i>Raximova Dilnoza Davronovna, Nosirova Gulnoza</i>	59
LUFFA – EKOLOGIK TOZA MAHSULOT SIFATIDA PLASTIK GUBKALARGA MUQOBIL YECHIM <i>Raximova Dilnoza Davronovna, Safarova Nozimaxon Rustamjon qizi</i> ...	60
MAMLAKATIMIZ MINTAQALARIDA ATROF MUHITNI ASRASHNING USTUVOR YO‘NALISHLARI <i>Raximova Dilnoza Davronovna, Raxmatov Jasur Abduraxmonovich, Nabiyeva Feruza Ravshanovna</i>	63
YASHIL IQTISODIYOT: TERINI QAYTA ISHLASHDA HOSIL BO‘LADIGAN CHIQINDILARIDAN SAMARALI FOYDALANISH <i>Rahmonov Xurshid Xayriddinovich</i>	65
MINTAQALARDA ATROF MUHITNI ASRASHNING USTUVOR YO‘NALISHLARI SIFATIDA YER RESURLARIDAN UNUMLI FOYDALAHISH USULLARINI TAKOMILLASHTIRISH <i>Akramova Obida Qosimovna</i>	67
QASHQADARYO VILOYATIDA ATROF-MUHIT MASALALARI <i>Allayorov Isroil Xaykalovich, Yuldosheva Iroda Baxtiyor qizi</i>	70
QOROVULBOZOR TUMANINING ATROF-MUHITGA TA‘SIRINI BAHOLASH <i>Amonov Zamirbek Maqsudovich, Mirzoyeva Istat Elmurodovna</i>	72
ATMOSFERANING IFLOSLANISHI VA UNING ATROF-MUHITGA TA‘SIRI <i>Amonov Zamirbek Maqsudovich, Mirzoyeva Istat Elmurodovna</i>	75
«YASHIL IQTISODIYOT» DASTURINING O‘ZBEKISTONDAGI NATIJALARI <i>Berdiyev G‘olib Ne‘matovich</i>	76
MINTAQALARNI IJTIMOY-IQTISODIY RIVOJLANTIRISH VA RAQOBATBARDOSHLIGINI OSHIRISHNING ASOSIY YO‘NALISHLARI <i>Ergashev Sherali Erali o‘g‘li</i>	78
EXPERIENCES OF ECONOMIC INTEGRATION AND DEVELOPMENT OF THE GREEN ECONOMY IN UZBEKISTAN <i>Farmonova Maftuna Norpulat qizi</i>	80
QAYTA TIKLANADIGAN RESURLAR VA MUQOBIL ENERGIYA SAMARADORLIGI <i>Nuriddinova Gulsanam Bahriddin qizi, Narzullayeva Gulchehra Salimovna</i>	82
BUXORO VILOYATI TUPROQLARINING FIZIK XOSSALARINI YAXSHILASH ORQALI YASHIL IQTISODIYOTIMIZNI BOYITISH <i>Hakimova Nodira Xayrilloevna, Xalilova Ma‘mura Ravshan qizi</i>	85
ВОЗОБНОВЛЯЕМЫЕ ИСТОЧНИКИ ЭНЕРГИИ: ОПЫТ И ПЕРСПЕКТИВЫ УЗБЕКИСТАНА <i>Кабиллова Нигина Шухратовна</i>	87
ATROF MUHITNI ASRASHDA CHO‘L YAYLOVLARNING O‘RNI VA ULAR IXTISOSLASHUVINI GLOBAL IQLIM O‘ZGARISHI SHAROITLARIGA MOSLASHTIRISHNING ISTIQBOLLARI <i>Qozoqov Najmiddin Isomiddinovich</i>	90
XORIJIY MAMLAKATLARDA YASHIL IQTISODIYOTGA O‘TISHNING ILG‘OR TAJRIBASI <i>Nasullayeva Yoqutoy Nasim qizi</i>	92
ATROF MUHITNI MUHOFAZA QILISH MUAMMOLARI, YECHIMLAR VA KELAJAKDA RIVOJLANISH YO‘LLARI (BUXORO VILOYATI MISOLIDA) <i>Negmatullayeva Zarina Baxodirovna</i>	95
ATROF-MUHITNI MUHOFAZA QILISH: MUAMMOLAR, YECHIMLAR VA KELAJAKDA RIVOJLANISH YO‘LLARI (Buxoro viloyati misolida) <i>Negmatullayeva Zarina Baxodirovna</i>	99
GREEN ECONOMY AND PRIORITY DIRECTIONS FOR ENVIRONMENTAL PROTECTION IN THE REGION OF UZBEKISTAN <i>Po‘latov.Sh.Sh., Shukurova.S.N</i>	104
IQTISODIYOTNING INNOVATSION RIVOJLANISHI SHAROITIDA XIZMATLAR SOHASINI RIVOJLANTIRISHNING HUDUDIIY XUSUSIYATLARI <i>Primova Shahlo</i>	

- Policy documents: Uzbekistan's Green Economy Strategy (2019), National Sustainable Development Goals (SDGs), and regional trade agreements.

Statistical Analysis:

1. **Descriptive Statistics:** Summarized trends in GDP growth, trade, and environmental indicators.

2. **Regression Analysis:** Assessed the relationship between green economy investments and GDP growth.

3. **Correlation Analysis:** Evaluated the link between renewable energy adoption and CO2 emissions reduction.

4. **Comparative Analysis:** Compared Uzbekistan's performance with other Central Asian countries.

Results

1. Economic Integration:

- Uzbekistan's GDP grew at an average annual rate of 5.8% between 2010 and 2022, reaching \$80 billion in 2022.

- Trade volumes increased by 12% annually, driven by regional integration initiatives such as membership in the Eurasian Economic Union (EAEU) and partnerships with China's Belt and Road Initiative (BRI).

- FDI inflows rose from 1.2 billion in 2010 to 4.5 billion in 2022, with significant investments in energy, infrastructure, and manufacturing.

2. Green Economy Development:

- Renewable energy capacity increased by 25% between 2015 and 2022, with solar and wind energy accounting for 8% of total energy production.

- CO2 emissions per capita decreased by 15% over the same period, reflecting the impact of green policies and energy efficiency measures.

- Green economy initiatives created approximately 50,000 new jobs in sectors such as renewable energy, sustainable agriculture, and eco-tourism.

3. Statistical Findings:

- Regression analysis revealed a positive correlation ($R^2 = 0.72$) between green economy investments and GDP growth, indicating that sustainable practices contribute to economic development.

- A strong negative correlation ($r = -0.85$) was observed between renewable energy adoption and CO2 emissions, highlighting the environmental benefits of green energy.

- Comparative analysis showed that Uzbekistan outperformed regional peers in renewable energy adoption and job creation in green sectors.

Discussion

Economic Integration:

Uzbekistan's integration into regional and global markets has been a key driver of economic growth. Membership in the EAEU and participation in the BRI have expanded trade opportunities and attracted FDI. However, reliance on raw material exports remains a vulnerability, underscoring the need for further diversification.

Green Economy Development: Uzbekistan's green economy initiatives have yielded positive results, particularly in renewable energy and job creation. The country's abundant solar resources provide a strong foundation for further expansion of green energy. However, challenges such as limited access to financing, outdated infrastructure, and weak institutional capacity hinder progress.

Policy Implications:

1. Strengthen regional cooperation to enhance trade and investment in green technologies.
2. Increase public and private financing for renewable energy projects through partnerships with international organizations and green bonds.

3. Improve institutional capacity by training policymakers and stakeholders in sustainable development practices.

4. Promote public awareness campaigns to encourage energy efficiency and sustainable consumption.

Conclusion

Uzbekistan's experiences in economic integration and green economy development offer valuable insights for other transitioning economies. The statistical analysis demonstrates the positive impact of green policies on economic growth, employment, and environmental sustainability. However, addressing financing gaps and institutional challenges is critical to sustaining progress. By leveraging its strategic location and natural resources, Uzbekistan can become a regional leader in sustainable development.

References

1. World Bank. (2022). *Uzbekistan Economic Update*.
2. United Nations Development Programme (UNDP). (2021). *Green Economy Transition in Uzbekistan*.
3. State Statistics Committee of Uzbekistan. (2022). *Annual Statistical Report*.
4. Eurasian Economic Union (EAEU). (2021). *Trade and Investment Report*.
5. International Monetary Fund (IMF). (2022). *Uzbekistan: Selected Issues*.
6. World Resources Institute. (2021). *Climate Watch Data*.

QAYTA TIKLANADIGAN RESURLAR VA MUQOBIL ENERGIYA SAMARADORLIGI

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Tabiiy resurslarning asrlar davomida qazib olinishi va muntazam ravishda ulardan foydalanish bugungi kunga kelib ko'plab muammolar keltirib chiqardi. Ular dunyo iqlim o'zgarishi, energiya xavfsizligi, qazib olinadigan yoqilg'ilarning kamayishidan iborat.¹⁵ Shunday muammolar bilan kurashishda qayta tiklanadigan resurslardan foydalanishga e'tibor berilmoqda.

Jumladan, quyosh energiyasi yoki quyosh quvvatidan foydalanish.

Quyosh energiyasi bir necha o'n yillikdan beri tabiiy qayta tiklanmaydigan resurslarning muqobili bo'lib kelmoqda. Quyosh energiyasi — bu quyosh nuridan energiyani to'g'ridan-to'g'ri fotovoltaik (PV) hujayralar yoki konsentrlangan quyosh energiyasi yordamida elektr energiyasiga aylantirish jarayoni. PV hujayralar fotovoltaik effekt orqali yorug'likni elektr tokiga aylantiradi.¹⁶

Quyosh energiyasidan foydalanishda bizga, iste'molchilarga, bevosita quyosh panellari yordam beradi. Quyosh panellari fotovoltaik hujayralar yordamida quyosh nurlarini yutib, fotovoltaik effekt orqali ularni elektr energiyasiga aylantiradi.

Ma'lumki, XIX asrlarda asosiy energiya resursini ko'mir tashkil qilgan va uning tez orada tanqislikka uchrashini hisobga olgan amerikalik kashfiyotchi Charlz Fretts 1888-yilda Nyu-York tomiga ilk fotovoltaik quyosh massivini o'rnatdi. Ushbu kashfiyot insoniyat taraqqiyoti uchun, uning kelajagi uchun ulkan yangilanish bo'ldi desak mubolag'a bo'lmaydi.

1-jadval

¹⁵ Akbarova N.N. "Muqobil energiyani rivojlantirish usullari: barqaror kelajakka yo'l ochish". 2024

¹⁶ [Quyosh energiyasi - Vikipediya \(wikipedia.org\)](https://ru.wikipedia.org/wiki/Quyosh_energiyasi)

Quyosh energiyasidan foydalanuvchi davlatlar statistikasi¹⁷

Davlat	2022-yil (GWh)	2023-yil (GWh)	2024-yil dekabr – 2025-yil yanvar (GWh yoki % dagi ulushi)
Xitoy	~400,000	584,150	"Quyosh Buyuk Devori" loyihasi davom etmoqda, yirik o'sish kutilmoqda
AQSH	~200,000	238,120	Yangilangan ma'lumot yo'q
Hindiston	~90,000	113,410	Toza elektr energiyasi ishlab chiqarish 26% ga oshdi
Yaponiya	~100,000	109,360	Yangilangan ma'lumot yo'q
Germaniya	~60,000	61,560	2025-yil boshida 12,5 TWh ishlab chiqarilgan, elektr ta'minotining 11%
Braziliya	~45,000	51,720	Yangilangan ma'lumot yo'q
Avstraliya	~40,000	46,910	2024-yil dekabrda qayta tiklanadigan energiya ulushi 46% ga yetdi
Ispaniya	~38,000	45,080	Quyosh energiyasi ulushi 15%
Italiya	~35,000	31,010	Yangilangan ma'lumot yo'q
Janubiy Koreya	~25,000	29,370	Fosil yoqilg'ili ishlab chiqarish 15% ga kamaydi
Lyuksemburg	N/A	24% ulush	Yangilangan ma'lumot yo'q
Malta	N/A	20% ulush	Yangilangan ma'lumot yo'q

Bundan tashqari aytib o'tish joizki, 2025-yilning birinchi choragida Yevropada quyosh energiyasi ishlab chiqarish 68 teravatt-soatga yetib, o'tgan yilning shu davriga nisbatan 32% o'sdi. Germaniya 12,5 TWh quyosh energiyasi ishlab chiqarib, umumiy elektr energiyasi ishlab chiqarishining 11% ini tashkil etdi. Ispaniyada esa quyosh energiyasi ulushi 15% ga yetdi.

2025-yilning dastlabki oylarida Osiyo mamlakatlari, jumladan, Xitoy, Hindiston, Janubiy Koreya va Yaponiya, toza energiyaga o'tishda Yevropa va AQShni ortda qoldirdi. Masalan, Janubiy Koreya fosil yoqilg'i asosidagi elektr energiyasi ishlab chiqarishni 15% ga kamaytirdi, Hindiston esa toza elektr energiyasi ishlab chiqarishni 26% ga oshirdi

Xitoy Ichki Mo'g'ulistonning Kubuqi cho'lida "Quyosh Buyuk Devori" deb nomlangan yirik quyosh loyihasini qurmoqda. 2030-yilga borib 100 gigavatt quvvatga ega bo'lishi kutilayotgan ushbu loyiha Pekinni energiya bilan ta'minlashga mo'ljallangan.

2024-yil dekabr oyida Avstraliyada qayta tiklanadigan energiya manbalari umumiy elektr ta'minotining rekord darajadagi 46% ini tashkil etdi, ko'mir yoqilg'isi asosidagi ishlab chiqarish esa birinchi marta 50% dan pastga tushdi.

Quyosh energiyasi elektr tokining muqobili sifatida qayta tiklanadigan energiya manbalari turiga kirsa-da, undan foydalanish ekologiyaga ancha zarar keltiradi. Quyosh energiyasidan foydalanish uchun konsentrlangan quyosh energiyasi kerak bo'ladi hamda konsentrlangan quyosh energiyasi quyosh energiyasining kichuk qismini tashkil qiladi. **Bu** gaz bilan ishlaydigan quvvatga qaraganda ko'proq suv talab qiladi, bu esa uni cho'llarda joylashtirishda muammo tug'dirishi mumkin.¹⁸ Tabiiyki, suv resurlari ham qayta tiklanmaydigan resurlar turiga kiradi.

Shamol energiyasi.

Shamol energiyasidan foydalanishni muqobil va qayta tiklanadigan resurslar 2-turi desak mubolag'a bo'lmaydi. U o'zining atrof-muhitga past ta'siri va texnologik yutuqlar tufayli qayta tiklanadigan energiyaning eng tez rivojlanayotgan tarmoqlaridan biridir.

Shamol energiyasidan foydalanish bir necha asrlarga borib taqaladi. Dastlab undan ulkan yelkan va qayiq larni harakatlantirish uchun foydalanishgan, keyinchalik miloddan avvalgi II-I asrlarda Xitoy va Misr hududlarida shamol tegirmonlari paydo bo'lgan.¹⁹

Bugungi kunda shamol energiyasidan foydalanishda asosan shamol dvigatellari qo'llaniladi. Bu o'z o'rnida shamol texnikasidan foydalanish degani. Shamol energiyasi 2 qismdan iborat: shamol texnikasi va shamoldan foydalanish. Birinchisi — shamol kuchidan

¹⁷ Ushbu jadvalda keltirilgan ma'lumotlar Xalqaro Energiya Agentligi keltirgan statistik ma'lumotlarga, [worldstatistic.net](https://www.worldstatistic.net), [reuters.com](https://www.reuters.com), [nypost.com](https://www.nypost.com), [theguardian.com](https://www.theguardian.com) va [statista.com](https://www.statista.com) saytlaridan olingan ma'lumotlarga asoslangan

¹⁸ „Water consumption solution for efficient concentrated solar power | Research and Innovation“ ec.europa.eu.

¹⁹ [Shamol energetikasi - Wikipedia \(wikipedia.org\)](https://en.wikipedia.org/wiki/Shamal_energetikasi)

foydalanuvchi qurilmalarni loyihalash bilan, ikkinchisi esa — ushbu qurilmalardan samarali va iqtisodiy jihatdan foydali foydalanish masalalari bilan shug'ullanadi. Shamol energiyasidan foydalanish, shamol dvigatellarini o'rnatish boshqa turdagi energiya manbalaridan foydalanish iloji bo'lmagan hududlarda asqotadi. Markaziy Osiyo, asosan O'zbekiston hududida mavjud bo'lgan cho'l, dasht va chalacho'llarda shamol energiyasidan foydalanish mumkin.

2-jadval

Shamol energiyasidan foydalanuvchi davlatlar statistikasi²⁰

Davlat	Shamol energiyasi ishlab chiqarishi (GWh)
Xitoy	885,870
AQSH	425,230
Germaniya	137,290
Braziliya	95,740
Birlashgan Qirollik	82,460
Hindiston	82,100
Ispaniya	64,130
Fransiya	48,610
Kanada	38,100
Shvetsiya	34,720
Turkiya	33,880
Avstraliya	33,130
Niderlandiya	28,970
Italiya	23,510
Polsha	23,060

Xulosa sifatida shuni aytish joizki, Xitoy shamol energiyasi ishlab chiqarishda 2023-yilgi ko'rsatkichlarda 885,870 GWh energiya bilan yetakchilik qilgan. AQSH 425,230 GWh, Xitoydan deyarli ikki baravar kam ko'rsatkich bilan, ikkinchi o'rinni egallagan. Germaniya, Birlashgan Qirollik va Braziliya ham mos ravishda 137,290 GWh, 82,460 GWh. va 95,740 GWh bilan yuqori natijalarga erishgan. Hindiston va Ispaniya ham 82,100 GWh va 64,130 GWh. bilan muhim ishlab chiqaruvchilar qatorida bo'lgan.

Quyosh energiyasi, shamol energiyasi va shu kabi muqobil energiyadan foydalanish ma'lum bir davlat, hatto mintqa sanoatiga ham o'z ta'sirini o'tkazmay qolmaydi. Kuzatishlar shu natijani ko'rsatdiki, bunday siyosat O'zbekiston Respublikasi sanoati uchun ham eng muhim yo'nalishlardan biridir.

Ma'lumki, qazib olinadigan yoqilg'idan foydalanish asosida energiya ishlab chiqarish ekologik muammolarni keltirib chiqaradi va buni zamonaviy fan iqlim o'zgarishining asosiy sababi deb hisoblaydi.

Aksariyat olimlar shamol, quyosh va boshqa qayta tiklanuvchi energiyadan sanoatda foydalanishga innovatsion rivojlanishning "lokomotiv"i sifatida qarashmoqda.²¹

O'zbekiston sanoatida jahon mamlakatlari kabi qayta tiklanuvchi energiya manbalaridan foydalanish uchun strategik yo'nalishlarni belgilab olish borasida aniq mexanizmlarni yaratish talab etiladi. Bunda quyosh nurlanishi, iqlim sharoiti va geografik joylashuv kabi omillar hisobga olinadi.

²⁰ Ushbu jadvaldagi ma'lumotlar [WorldStatistics.com](https://www.worldstatistics.com) sayti keltirgan ma'lumotlar asosida keltirildi.

²¹ Yaqubova Y.R. "O'zbekiston Respublikasida qayta tiklanuvchi energiya manbalaridan foydalanish holati va tendensiyalari". 2024