



IQTISODIYOT & TARAQQIYOT

Ijtimoiy, iqtisodiy, texnologik, ilmiy, ommabop jurnal

GREEN ECONOMY AND DEVELOPMENT

Social, Economic, Technological, Scientific and Popular Science Journal

2026-YIL / SENTABR /
9-SON, III-QISM



ISSN: 2992-8982

<https://yashil-iqtisodiyot-taraqqiyot.uz/>



IQTISODIYOT & TARAQQIYOT

Ijtimoiy, iqtisodiy, texnologik, ilmiy, ommabop jurnal

Bosh muharrir:

Sharipov Kongiratbay Avezimbetovich

*Elektron nashr. 2026-yil, sentabr.
III-qism*

Bosh muharrir o'rinbosari:

Karimov Norboy G'aniyevich

Muharrir:

Qurbonov Sherzod Ismatillayevich

Tahrir hay'ati:

Salimov Oqil Umrzoqovich, O'zbekiston Fanlar akademiyasi akademigi
Abduraxmanov Kalandar Xodjayevich, O'zbekiston Fanlar akademiyasi akademigi
Sharipov Kongiratbay Avezimbetovich, texnika fanlari doktori (DSc), professor
Rae Kvon Chung, Janubiy Koreya, TDIU faxriy professori, "Nobel" mukofoti laureati
Osman Mesten, Turkiya parlamenti a'zosi, Turkiya – O'zbekiston do'stlik jamiyati rahbari
Axmedov Durbek Kudratillayevich, iqtisodiyot fanlari doktori (DSc), professor
Axmedov Sayfullo Normatovich, iqtisodiyot fanlari doktori (DSc), professor
Abduraxmanova Gulnora Kalandarovna, iqtisodiyot fanlari doktori (DSc), professor
Kalonov Muxiddin Baxritdinovich, iqtisodiyot fanlari doktori (DSc), professor
Siddiqova Sadoqat G'afforovna, pedagogika fanlari bo'yicha falsafa doktori (PhD)
Xudoyqulov Sadirdin Karimovich, iqtisodiyot fanlari doktori (DSc), professor
Maxmudov Nosir, iqtisodiyot fanlari doktori (DSc), professor
Yuldashev Mutallib Ibragimovich, iqtisodiyot fanlari doktori (DSc), professor
Samadov Asqarjon Nishonovich, iqtisodiyot fanlari nomzodi, professor
Slizovskiy Dimitriy Yegorovich, texnika fanlari doktori (DSc), professor
Mustafakulov Sherzod Igamberdiyevich, iqtisodiyot fanlari doktori (DSc), professor
Axmedov Ikrom Akramovich, iqtisodiyot fanlari doktori (DSc), professor
Eshtayev Alisher Abdug'aniyevich, iqtisodiyot fanlari doktori (DSc), professor
Xajiyev Baxtiyor Dushaboyevich, iqtisodiyot fanlari doktori (DSc), professor
Hakimov Nazar Hakimovich, falsafa fanlari doktori (DSc), professor
Musayeva Shoirazimovna, iqtisodiyot fanlari bo'yicha falsafa doktori (PhD), professor
Ali Konak (Ali Ko'nak), iqtisodiyot fanlari doktori (DSc), professor (Turkiya)
Cham Tat Huei, falsafa fanlari doktori (PhD), professor (Malayziya)
Foziljonov Ibrohimjon Sotvoldixo'ja o'g'li, iqtisodiyot fanlari bo'yicha falsafa doktori (PhD), dots.
Faxridinov Zafarjon Faxridin o'g'li, O'zb. Res. Bosh prokuraturasi HIJQKD boshqarma boshlig'i
Utayev Uktam Choriyevich, Anijon viloyati prokurorining o'rinbosari
Ochilov Farkhod, O'zb. Res. Bosh prokuraturasi IJQK Departamentining Namangan viloyati boshqarmasi boshlig'i
Buzrukhonov Sarvarxon Munavvarxonovich, iqtisodiyot fanlari nomzodi, dotsent
Axmedov Javohir Jamolovich, iqtisodiyot fanlari bo'yicha falsafa doktori (PhD)
Toxirov Jaloliddin Ochil o'g'li, texnika fanlari bo'yicha falsafa doktori (PhD), katta o'qituvchi
Bobobekov Ergash Abdumalikovich, iqtisodiyot fanlari bo'yicha falsafa doktori (PhD), v.b. dots.
Djudi Smetana, pedagogika fanlari nomzodi, dotsent (AQSH)
Krissi Lyuis, pedagogika fanlari nomzodi, dotsent (AQSH)
Glazova Marina Viktorovna, Iqtisodiyot fanlari doktori (Moskva)
Nosirova Nargiza Jamoliddin qizi, iqtisodiyot fanlari bo'yicha falsafa doktori (PhD), dotsent
Sevil Piriyeva Karaman, falsafa fanlari doktori (PhD) (Turkiya)
Mirzaliyev Sanjar Makhamatjon o'g'li, TDIU ITI departamenti rahbari
Ochilov Bobur Baxtiyor o'g'li, TDIU katta o'qituvchisi
Golisheva Yelena Vyacheslavovna, Iqtisodiyot fanlari nomzodi, dotsent.
Abdukarimova Dinara Rustamxanovna, bank-moliya akademiyasi professori, DSc., professor.
Ikramov Murod Akramovich, iqtisodiyot fanlari doktori (DSc), professor
Nazarova Ra'no Rustamovna, iqtisodiyot fanlari doktori (DSc), professor



IQTISODIYOT & TARAQQIYOT

Ijtimoiy, iqtisodiy, texnologik, ilmiy, ommabop jurnal

Editorial board:

Salimov Okil Umrzokovich, Academician of the Academy of Sciences of Uzbekistan
Abdurakhmanov Kalandar Khodjayevich, Academician of the Academy of Sciences of Uzbekistan
Sharipov Kongirاتبay Avezimbetovich, Doctor of Technical Sciences (DSc), Professor
Rae Kwon Chung, South Korea, Honorary Professor at TSUE, Nobel Prize Laureate
Osman Mesten, Member of the Turkish Parliament, Head of the Turkey–Uzbekistan Friendship Society
Akhmedov Durbek Kudratillayevich, Doctor of Economic Sciences (DSc), Professor
Akhmedov Sayfullo Normatovich, Doctor of Economic Sciences (DSc), Professor
Abdurakhmanova Gulnora Kalandarovna, Doctor of Economic Sciences (DSc), Professor
Kalonov Mukhiddin Bakhridinovich, Doctor of Economic Sciences (DSc), Professor
Siddikova Sadokat Gafforovna, Doctor of Philosophy (PhD) in Pedagogical Sciences
Khudoykulov Sadirdin Karimovich, Doctor of Economic Sciences (DSc), Professor
Makhmudov Nosir, Doctor of Economic Sciences (DSc), Professor
Yuldashev Mutallib Ibragimovich, Doctor of Economic Sciences (DSc), Professor
Samadov Askarjon Nishonovich, Candidate of Economic Sciences, Professor
Slizovskiy Dmitriy Yegorovich, Doctor of Technical Sciences (DSc), Professor
Mustafakulov Sherzod Igamberdiyevich, Doctor of Economic Sciences (DSc), Professor
Akhmedov Ikrom Akramovich, Doctor of Economic Sciences (DSc), Professor
Eshtayev Alisher Abduganiyevich, Doctor of Economic Sciences (DSc), Professor
Khajiyev Bakhtiyor Dushaboyevich, Doctor of Economic Sciences (DSc), Professor
Khakimov Nazar Khakimovich, Doctor of Philosophy (DSc), Professor
Musayeva Shoira Azimovna, Doctor of Philosophy (PhD) in Economic Sciences, Professor
Ali Konak, Doctor of Economic Sciences (DSc), Professor (Turkey)
Cham Tat Huei, Doctor of Philosophy (PhD), Professor (Malaysia)
Foziljonov Ibrokhimjon Sotvoldikhoja ugli, Doctor of Philosophy (PhD) in Economic Sciences, Associate Professor
Fakhridinov Zafarjon Fakhridin ogli, Head of the DCEC under the Prosecutor General's Office of the Rep. of Uzb.
Utayev Uktam Choriyevich, Deputy Prosecutor of Anijan Region
Ochilov Farkhod, Head of the Namangan Regional Department of the Department of Internal Affairs of Rep. of Uzb.
Buzrukkhonov Sarvarkhon Munavvarkhonovich, Candidate of Economic Sciences, Associate Professor
Akhmedov Javokhir Jamolovich, Doctor of Philosophy (PhD) in Economic Sciences
Tokhirov Jaloliddin Ochil ugli, Doctor of Philosophy (PhD) in Technical Sciences, Senior Lecturer
Bobobekov Ergash Abdumalikovich, Doctor of Philosophy (PhD) in Economic Sciences, Acting Associate Professor
Judi Smetana, Candidate of Pedagogical Sciences, Associate Professor (USA)
Chrissy Lewis, Candidate of Pedagogical Sciences, Associate Professor (USA)
Glazova Marina Victorovna, Doctor of Sciences in Economics (Moscow)
Nosirova Nargiza Jamoliddin kizi, Doctor of Philosophy (PhD) in Economic Sciences, Associate Professor
Sevil Piriyea Karaman, Doctor of Philosophy (PhD) (Turkey)
Mirzaliyev Sanjar Makhamatjon ugli, Head of the Department of Scientific Research and Innovations, TSUE
Ochilov Bobur Bakhtiyor ugli, Senior lecturer at TSUI
Golisheva Yelena Vyacheslavovna, Candidate of Economic Sciences, Associate Professor.
Abdukirimova Dinara Rustamkhanovna, Doctor of Economic Sciences (DSc), Professor
Ikramov Murod Akramovich, Doctor of Economic Sciences (DSc), Professor
Nazarova Ra'no Rustamovna, Doctor of Economic Sciences (DSc), Professor

Ekspertlar kengashi:

Berkinov Bazarbay, iqtisodiyot fanlari doktori (DSc), professor
Po'latov Baxtiyor Alimovich, texnika fanlari doktori (DSc), professor
Aliyev Bekdavat Aliyevich, falsafa fanlari doktori (DSc), professor
Isakov Janabay Yakubbayevich, iqtisodiyot fanlari doktori (DSc), professor
Xalikov Suyun Ravshanovich, iqtisodiyot fanlari nomzodi, dotsent
Rustamov Ilhomiddin, iqtisodiyot fanlari nomzodi, dotsent
Hakimov Ziyodulla Ahmadovich, iqtisodiyot fanlari doktori, dotsent
Kamilova Iroda Xusniddinovna, iqtisodiyot fanlari bo'yicha falsafa doktori (PhD)
G'afurov Doniyor Orifovich, pedagogika fanlari bo'yicha falsafa doktori (PhD)
Fayziyev Oybek Raximovich, iqtisodiyot fanlari bo'yicha falsafa doktori (PhD), dotsent
Tuxtabayev Jamshid Sharafetdinovich, iqtisodiyot fanlari bo'yicha falsafa doktori (PhD), dotsent
Xamidova Faridaxon Abdulkarim qizi, iqtisodiyot fanlari doktori, dotsent
Yaxshiboyeva Laylo Abdisattorovna, katta o'qituvchi
Babayeva Zuhra Yuldashevna, mustaqil tadqiqotchi
Komilova Nilufar Karshiboyevna, Geografiya fanlari doktori, professori
Umirzoqov Ja'sur Artiqboy o'g'li, iqtisodiyot fanlari doktori (DSc), dotsent
Zebo Kuldasheva, iqtisodiyot fanlari doktori (DSc), dotsent

Board of Experts:

Berkinov Bazarbay, Doctor of Economic Sciences (DSc), Professor
Pulatov Bakhtiyor Alimovich, Doctor of Technical Sciences (DSc), Professor
Aliyev Bekdavat Aliyevich, Doctor of Philosophy (DSc), Professor
Isakov Janabay Yakubbayevich, Doctor of Economic Sciences (DSc), Professor
Khalikov Suyun Ravshanovich, Candidate of Economic Sciences, Associate Professor
Rustamov Ilhomiddin, Candidate of Economic Sciences, Associate Professor
Khakimov Ziyodulla Akhmadovich, Doctor of Economic Sciences, Associate Professor
Kamilova Iroda Xusniddinovna, Doctor of Philosophy (PhD) in Economics
Gafurov Doniyor Orifovich, Doctor of Philosophy (PhD) in Pedagogy
Fayziyev Oybek Raximovich, Doctor of Philosophy (PhD) in Economics, Associate Professor
Tukhtabayev Jamshid Sharafetdinovich, Doctor of Philosophy (PhD) in Economics, Associate Professor
Khamidova Faridaxon Abdulkarimovna, Doctor of Economic Sciences, Associate Professor
Yakhshiboyeva Laylo Abdisattorovna, Senior Lecturer
Babayeva Zuhra Yuldashevna, Independent Researcher
Komilova Nilufar Karshiboyevna, Doctor of Geographical Sciences, Professor
Umirzokov Jasur Artiqboy ugli, Doctor of Economic Sciences (DSc), Associate Professor
Zebo Kuldasheva, Doctor of Economic Sciences (DSc), Associate Professor

- 08.00.01 Iqtisodiyot nazariyasi
- 08.00.02 Makroiqtisodiyot
- 08.00.03 Sanoat iqtisodiyoti
- 08.00.04 Qishloq xo'jaligi iqtisodiyoti
- 08.00.05 Xizmat ko'rsatish tarmoqlari iqtisodiyoti
- 08.00.06 Ekonometrika va statistika
- 08.00.07 Moliya, pul muomalasi va kredit
- 08.00.08 Buxgalteriya hisobi, iqtisodiy tahlil va audit
- 08.00.09 Jahon iqtisodiyoti
- 08.00.10 Demografiya. Mehnat iqtisodiyoti
- 08.00.11 Marketing
- 08.00.12 Mintaqaviy iqtisodiyot
- 08.00.13 Menejment
- 08.00.14 Iqtisodiyotda axborot tizimlari va texnologiyalari
- 08.00.15 Tadbirkorlik va kichik biznes iqtisodiyoti
- 08.00.16 Raqamli iqtisodiyot va xalqaro raqamli integratsiya
- 08.00.17 Turizm va mehmonxona faoliyati

Muassis: "Ma'rifat-print-media" MChJ

Hamkorlarimiz: Toshkent davlat iqtisodiyot universiteti,
O'zbekiston Respublikasi Bosh prokuraturasi huzuridagi Iqtisodiy
jinoyatlarga qarshi kurashish departamenti

Jurnalning ilmiyligi:

“Yashil” iqtisodiyot va
taraqqiyot” jurnali

O'zbekiston Respublikasi
Oliy ta'lim, fan va innovatsiyalar
vazirligi huzuridagi Oliy
attestatsiya komissiyasi
rayosatining
2023-yil 1-apreldagi
336/3-sonli qarori bilan
ro'yxatdan o'tkazilgan.



MUNDARIJA

DUAL TA'LIM ASOSIDA TEXNIKA FANLARINI O'QITISH METODIKASINI TAKOMILLASHTIRISH: ELEKTR ENERGETIKASI TA'LIMI MISOLIDA.....	14
Zoxidov Ikboljon Zokirjonovich	
KICHIK BIZNESDA RAQAMLI MARKETING VOSITALARINING SAVDO HAJMINI OSHIRISHDAGI IQTISODIY SAMARADORLIGI.....	20
Raxmonova Feruza Musakulovna	
MOLIYALASHTIRISHDA DAVLAT ARALASHUVINING IQTISODIY ASOSLARI	27
Yerjanov Shohrux Kabil o'g'li	
ОЦЕНКА ВЛИЯНИЯ СЕЛЬСКОХОЗЯЙСТВЕННЫХ РИСКОВ НА ПРОДОВОЛЬСТВЕННУЮ БЕЗОПАСНОСТЬ РЕСПУБЛИКИ УЗБЕКИСТАН.....	34
Нуруллаева Гулнара Коптлеуовна	
KORPORATIV BOSHQARUVDA NOMOLIYAVIY HISOBOT TIZIMINI RIVOJLANTIRISHNING ASOSIY YO'NALISHLARI.....	39
Akmaljon Valijonov	
BYUDJET TASHKILOTLARIDA DEBITORLIK VA KREDITORLIK QARZLARINING HISOB, NAZORAT VA ICHKI AUDIT OBYEKTI SIFATIDAGI IQTISODIY MAZMUNI	43
Abdulazizov Aziz Anvar o'g'li	
MAMLAKATIMIZ KOMPANIYALARI BOSHQARUV JARAYONLARIDA RAQAMLI TEKNOLOGIYALARDAN SAMARALI FOYDALANISHDAGI MUAMMOLAR.....	49
To'ychiboyev Nozimjon Soliyevich	
TIJORAT BANKLARIGA KAPITAL BOZORI ORQALI INVESTITSIYALARNI JALB QILISH YO'LLARI.....	58
Qurbonova Vazira Ravshan qizi	
MEVA-SABZAVOTCHILIK KOOPERATSIYALARINI MOLIYALASHTIRISH MEKANIZMINI BAHOLASHNING INSTITUTSIONAL-MOLIYAVIY INTEGRAL INDEKSI	62
Bobojonova Shahnoza Otaxonovna	
DUNYODA KAMBAG'ALLIKNI QISQARTIRISHNING ZAMONAVIY STRATEGIYALARI	69
Mirzamahmudova Madina Odiljon qizi	
ЗАРУБЕЖНЫЙ ОПЫТ УПРАВЛЕНИЯ РАЗВИТИЕМ ЗЕЛЁНОЙ ЭКОНОМИКИ НА РЕГИОНАЛЬНОМ УРОВНЕ: СРАВНИТЕЛЬНЫЙ АНАЛИЗ И ВОЗМОЖНОСТИ АДАПТАЦИИ В УЗБЕКИСТАНЕ.....	73
Муминжонов Анварбек Сайфитдин угли	
ANSWERING BUYER CARBON-DATA REQUESTS: A MINIMUM ACCOUNTING CONTOUR FOR SECOND-TIER EXPORTERS IN EMERGING ECONOMIES.....	82
Mukhammadiyaminova Shakhzoda Sherzodovna	
OZIQ-OVQAT SANOATI KORXONALARIDA TA'MINOT ZANJIRINI BOSHQARISHNING XORIJ TAJRIBALARI	89
No'manov Javoxir Olimjon o'g'li	
ПРИМЕНЕНИЕ МЕТОДОВ ДЕГУРВА И ГЛОБАЛЬНОГО СЛОЯ НАСЕЛЁННЫХ ПУНКТОВ ПРИ КЛАССИФИКАЦИИ ТЕРРИТОРИЙ РЕСПУБЛИКИ УЗБЕКИСТАН ПО СТЕПЕНИ УРБАНИЗИРОВАННОСТИ	96
Салимова Юлдуз Исаковна	
O'ZBEKISTONDA RAQAMLI IQTISODIYOTNI RIVOJLANTIRISHNING HUDUDII SAMARADORLIGINI BAHOLASH: RAQAMLI INFRASTRUKTURA VA IQTISODIY O'SISH O'RTASIDAGI BOG'LIQLIK.....	105
Suyunov Shohzodbek Murod o'g'li	



O'ZBEKISTON MINTAQALARINING IQTISODIY RIVOJLANISH DARAJASINI KOMPLEKS BAHOLASH VA HUDUDLARARO TAFOVUTLARNI ANIQLASH.....	112
Ismatov Fazliddin Ibodovich	
QURILISH SOHASIDAGI KICHIK BIZNES SUBYEKTLARIDA IQTISODIY SAMARADORLIKNI OSHIRISHNING ILMIY-NAZARIY ASOSLARI.....	117
Yunusov Abduvoxid Abdukarimovich	
ЭКОНОМЕТРИЧЕСКОЕ МОДЕЛИРОВАНИЕ ЭКОНОМИКИ НАВОИЙСКОЙ ОБЛАСТИ РЕСПУБЛИКИ УЗБЕКИСТАН.....	124
Рахмонов Мирвохид Ражабович	
ADVANCING SUSTAINABLE AND GREEN ECONOMY DEVELOPMENT IN UZBEKISTAN THROUGH BILATERAL CARBON CREDITING MECHANISMS.....	133
Dilfuza Arifkhodjaeva	
Gulchekhra Nematullayeva	
Bakhtiyor Pulatov	



ADVANCING SUSTAINABLE AND GREEN ECONOMY DEVELOPMENT IN UZBEKISTAN THROUGH BILATERAL CARBON CREDITING MECHANISMS

Dilfuza Arifkhodjaeva

Master's Student, Central Asian University of Environmental and Climate Change Studies (Green University),

Email: dilfuza.embbde@hotmail.com

ORCID ID: 0009-0003-7789-3011

Gulchekhra Nematullayeva

Master's Student, Central Asian University of Environmental and Climate Change Studies (Green University)

Email: g.nematullaeva@juru.org

ORCID ID: 0009-0001-1317-323X

Bakhtiyor Pulatov

Professor, Central Asian University of Environmental and Climate Change Studies (Green University)

Email: bakhtiyor.pulatoff@gmail.com

ORCID ID: 0000-0002-2574-970X

Abstract. Global climate change demands Uzbekistan's strategic transition from the top-down structures of the Kyoto Protocol to the flexible, bottom-up framework of the Paris Agreement. Facing rising temperatures, the nation has established an ambitious goal to significantly reduce greenhouse gas emissions intensity by 2035 through the implementation of Article 6 mechanisms. One of the key mechanisms in this perspective is the Joint Crediting Mechanism (JCM), a bilateral partnership with Japan that facilitates the transfer of high-tech green innovations and secures international climate trade. Uzbekistan has implemented comprehensive national legislation and established institutional frameworks consistent with international standards to promote transparency and prevent double counting. Building on achievements in Central Asia, collaborative initiatives are focused on encouraging economic growth independent of carbon, with an emphasis on sustainability.

Keywords: Joint Crediting Mechanism, Global Carbon Market, Sustainable Development, climate change, emission reduction, Central Asia.

Annotatsiya. Global iqlim o'zgarishi O'zbekistondan Kioto protokolining yuqoridan pastga yo'naltirilgan tuzilmalaridan Parij bitimining moslashuvchan, pastdan yuqoriga yo'naltirilgan tizimiga strategik o'tishni talab qilmoqda. Haroratning ko'tarilishi sharoitida mamlakat 6-modda mexanizmlarini amalga oshirish orqali 2035-yilga borib issiqxona gazlari tashlamalari intensivligini sezilarli darajada kamaytirish bo'yicha ulkan maqsadni belgiladi. Ushbu istiqboldagi mexanizmlardan biri Yaponiyaning Yuqori texnologiyali yashil innovatsiyalar transferiga ko'maklashuvchi va xalqaro iqlim savdosini ta'minlovchi ikki tomonlama hamkorligi — Birgalikda kreditlash mexanizmidir (JCM). O'zbekiston shaffoflikni oshirish va takroriy hisobga olishning oldini olish maqsadida xalqaro standartlarga mos keladigan milliy qonunchilik va institutsional asoslarni yaratdi. Markaziy Osiyodagi yutuqlarga tayanib, birgalikdagi tashabbuslar barqarorlikka urg'u bergan holda ugleroddan xoli iqtisodiy o'sishni rag'batlantirishga qaratilgan.

Kalit so'zlar: Birgalikda kreditlash mexanizmi, global uglerod bozori, barqaror rivojlanish, iqlim o'zgarishi, tashlamalarni kamaytirish, Markaziy Osiyo.

Аннотация. Глобальное изменение климата требует от Узбекистана стратегического перехода от командно-административной структуры Киотского протокола к гибкой, восходящей системе



Парижского соглашения. В условиях роста температур страна поставила перед собой амбициозную цель — значительно снизить интенсивность выбросов парниковых газов к 2035 году за счет реализации механизмов Статьи 6. Одним из ключевых инструментов в этой перспективе является Механизм совместного кредитования (JCM) — двустороннее партнерство с Японией, содействующее трансферу высокотехнологичных зеленых инноваций и обеспечивающее международную торговлю климатическими активами. Узбекистан сформировал комплексное национальное законодательство и институциональную базу, соответствующие международным стандартам для обеспечения прозрачности и предотвращения двойного учета. Опираясь на достигнутые результаты в Центральной Азии, совместные инициативы нацелены на стимулирование экономического роста без углеродной зависимости с акцентом на устойчивость.

Ключевые слова: Механизм совместного кредитования, глобальный углеродный рынок, устойчивое развитие, изменение климата, сокращение выбросов, Центральная Азия.

INTRODUCTION

Uzbekistan is facing a strategic challenge in achieving a 50% reduction in greenhouse gas emission intensity per unit of GDP by 2035—a result that will not be feasible without the prompt implementation of Article 6 mechanisms. According to the Asian Development Bank¹, Uzbekistan is experiencing a temperature increase of approximately 0.27°C per decade, significantly exceeding the global average². This paper points out that bilateral mechanisms, specifically the Joint Crediting Mechanism (JCM), provide the necessary bottom-up architecture to bridge the current gap.

The scale of this challenge is empirically measurable. According to the Third Nationally Determined Contribution (NDC 3.0), Uzbekistan's total greenhouse gas emissions reached 209.6 million tons of CO₂-equivalent in 2022, compared with 143.0 million tons in the 2010 base year, with the energy sector alone accounting for 64% of national emissions [UNFCCC, 2025] [2]. In parallel, the “Uzbekistan–2030” Strategy commits the country to expanding renewable energy capacity to 25,000 MW so that renewable sources provide about 54% of electricity generation. These figures show that decoupling economic growth from emissions requires international carbon finance and technology-transfer instruments.

Uzbekistan can overcome the slow progress seen during the Kyoto Protocol era by taking advantage of the decentralized nature of global carbon markets. Utilizing carbon crediting mechanisms facilitates high-tech transfers and secures green investments, ensuring that economic growth remains independent from carbon intensity.

This study stands out by exploring Uzbekistan's emerging carbon market framework, where such mechanisms are only beginning to be put into practice. Considering the limited amount of existing research in this context, the study seeks to identify carbon market models and crediting mechanisms that are most appropriate for Uzbekistan, taking into account its specific economic conditions and environmental priorities.

The objective of this study is to examine developments in the global carbon market, the current framework and status of Uzbekistan's carbon market, and the advantages of the Joint Crediting Mechanism (JCM), analyzing both a general overview and a case study.

The study is guided by three research questions:

(RQ1) How has the architecture of the global carbon market evolved from the Kyoto Protocol to Article 6 of the Paris Agreement?

(RQ2) What institutional and legal preconditions has Uzbekistan established for participation in bilateral crediting?

(RQ3) To what extent can the Joint Crediting Mechanism close the gap between Uzbekistan's realistic and ambitious mitigation scenarios?

The working hypothesis is that bilateral crediting under Article 6.2 offers Uzbekistan a faster and lower-cost pathway to its NDC 3.0 target than either unilateral action or multilateral crediting alone.

1 Yang, Y., et al. (2024). Uzbekistan, 2024–2028: Fostering Deep Reforms for a Sustainable Transformation to a Green and Inclusive Economy. Annex 6. Country climate action plan: Uzbekistan 2024–2028. Asian Development Bank. <https://www.adb.org/sites/default/files/linked-documents/cps-uzb-2024-2028-ccp.pdf>

2 United Nations Framework Convention on Climate Change (UNFCCC). (2025). Third Nationally Determined Contribution of Uzbekistan. <https://unfccc.int/sites/default/files/2025-11/Uzbekistan%20Third%20NDC.pdf>



LITERATURE REVIEW

The Evolution of Carbon Credit Mechanisms: From the Kyoto Protocol to the Paris Agreement

The transition from the Kyoto Protocol of 1997 to the Paris Agreement of 2015 played a major role in reshaping the global carbon market and highlights the need to examine how climate governance has evolved over time. This shift marked a move away from a centrally directed, top-down model toward a more flexible, bottom-up system based on voluntary national commitments.

The Kyoto era was defined by a binary worldview dividing states according to their development level, a structure that ultimately failed to engage the world's largest emitters. According to the Kyoto Protocol (KP), 38 developed countries were required to ensure that their combined emissions of greenhouse gases did not exceed assigned limits [Asadnabizadeh & Moe, 2024]³. These limits were based on commitments requiring at least a 5% reduction below 1990 levels during 2008–2012. The Kyoto Protocol set out only three supplementary mechanisms for developing countries, which could be utilized to optimize economic efficiency in meeting their carbon reduction or limitation targets.

In general, the outcome of COP15 (Copenhagen, 2009) demonstrated that the global carbon market (GCM) remained unchanged. A disappointing meeting, combined with an underperforming EU ETS carbon trading system, left the GCM concept in a critical state. The creation of new market mechanisms was a red line for many Parties; consequently, COP17 (Durban, South Africa, 2011) formally recognized two international carbon market approaches—the Clean Development Mechanism (CDM) and Joint Implementation (JI)—as attempts to gain increased efficiency through more consistent regulation [Marcu, 2012]⁴. Despite these efforts, significant advancement was only achieved at COP21 in Paris, where global attention returned to international carbon markets [Koakutsu et al., 2016]⁵.

The current Paris Agreement framework enables countries to set their own climate ambitions through Nationally Determined Contributions (NDCs), creating a flexible system in which both market-based and non-market approaches operate under Article 6. Article 6 provides for voluntary cooperation between Parties to implement their NDCs, and Article 6 mechanisms serve as “a basis for creating new linkages between different jurisdictions to reduce the current fragmentation of carbon markets” [World Bank Group, 2019]⁶.

By the end of COP22 (Marrakech, 2016), the Paris Agreement had been ratified by 111 states, accounting for more than 75% of global emissions.

Scholarly literature provides converging evidence for this transition. A review of three decades of international carbon markets by Michaelowa et al. [2019]⁷ shows that the credibility of market mechanisms depends mainly on two conditions: baseline integrity and robust accounting. Model-based studies further demonstrate the economic rationale for cooperation: Edmonds et al. [2021]⁸ estimate that cooperative NDC implementation through Article 6 could reduce global compliance costs by about US\$300 billion per year by 2030 and, if reinvested in mitigation, generate roughly 9 billion tons of additional CO₂ abatement annually. At the mechanism level, Sugino et al. [2017]⁹ show that JCM technology transfers can create positive economic multiplier effects while simultaneously reducing emissions.

RESEARCH METHODOLOGY

Bilateral Cooperation and the Implemented Study Case of the Joint Crediting Mechanism (JCM)

This study employs a qualitative, exploratory research design combining comparative policy analysis with a single-case study. The primary method is document analysis following a three-stage procedure (skimming,

3 Asadnabizadeh, M. A. M., & Moe, E. (2024). A review of global carbon markets from Kyoto to Paris and beyond: The persistent failure of implementation. *Frontiers in Environmental Science*, 12, 1368105. <https://doi.org/10.3389/fenvs.2024.1368105>

4 Marcu, A. (2012). Expanding carbon markets through new market-based mechanisms: A synthesis of discussions and submissions to the UNFCCC. Centre for European Policy Studies. <https://cdn.ceps.eu/wp-content/uploads/2012/05/Expanding%20Carbon%20Markets%20through%20NMMs.pdf>

5 Koakutsu, K., Amellina, A., Rocamora, A. R., & Umemiya, C. (2016). Operationalizing the Paris Agreement Article 6 through the Joint Crediting Mechanism (JCM): Key issues for linking market mechanisms and the nationally determined contributions (NDCs). Institute for Global Environmental Strategies (IGES).

6 Ramstein, C., et al. (2019). State and trends of carbon pricing 2019. World Bank Group. <https://documents1.worldbank.org/curated/en/191801559846379845/pdf/State-and-Trends-of-Carbon-Pricing-2019.pdf>

7 Michaelowa, A., Shishlov, I., & Brescia, D. (2019). Evolution of international carbon markets: Lessons for the Paris Agreement. *WIREs Climate Change*, 10(6), e613. <https://doi.org/10.1002/wcc.613>

8 Edmonds, J., Yu, S., McJeon, H., Forrister, D., Aldy, J., Hultman, N., Cui, R., Waldhoff, S., Clarke, L., de Clara, S., & Munnings, C. (2021). How much could Article 6 enhance nationally determined contribution ambition toward Paris Agreement goals through economic efficiency? *Climate Change Economics*, 12(2), 2150007. <https://doi.org/10.1142/S201000782150007X>

9 Sugino, M., Morita, M., Iwata, K., & Arimura, T. H. (2017). Multiplier impacts and emission reduction effects of Joint Crediting Mechanism: Analysis with a Japanese and international disaggregated input-output table. *Environmental Economics and Policy Studies*, 19(3), 635–657. <https://doi.org/10.1007/s10018-016-0177-y>



reading, and interpretation), which is appropriate given that Uzbekistan's emerging national carbon market cannot yet be evaluated through quantitative ex-post data. Evidence was triangulated across four primary source categories: UNFCCC submissions, national legislation, official JCM documentation, and international assessments. Artificial intelligence capabilities were also utilized during the editing process of this text. The comparative analysis evaluates the Kyoto Protocol and Paris Agreement across key operational dimensions, while the case study adopts a most-similar-case approach using the first JCM project in Kyrgyzstan as a benchmark for Uzbekistan.

Bilateral agreements offer an effective framework for the immediate transfer of low-carbon technologies. Uzbekistan's integration into the international carbon market is facilitated by Presidential Decree No. DP-110 of 2025¹⁰. Partnership with Japan under the Joint Crediting Mechanism (JCM) serves as a primary model for Article 6.2 «Cooperative Approaches.» Through the exchange of Internationally Transferred Mitigation Outcomes (ITMOs), Uzbekistan gains access to advanced energy-saving solutions.

Bilateral climate cooperation originated with the signing of a Memorandum of Cooperation in October 2022, establishing key environmental priorities. This was advanced by the first Joint Committee meeting in February 2025, where operational guidelines were adopted. Furthermore, the Arrangement on Environmental Cooperation signed on December 20, 2025, during the Central Asia + Japan Summit in Tokyo, reinforced joint efforts to mitigate greenhouse gas emissions, improve air quality, foster public-private collaboration, and build capacity for high-integrity carbon markets (Figure 1).

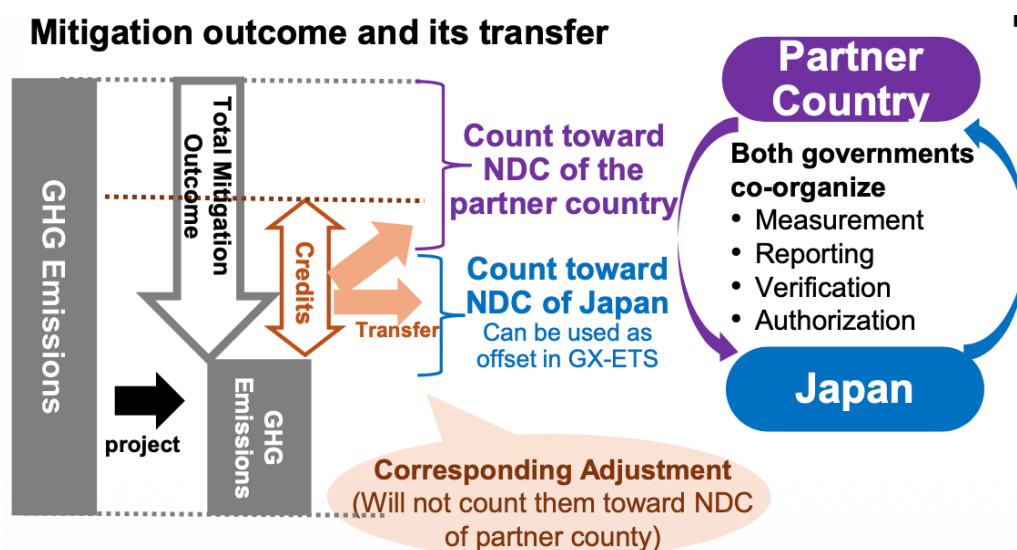


Figure 1. Implementation Scheme of the Joint Crediting Mechanism (JCM)¹¹

Figure 1 illustrates how the Joint Crediting Mechanism (JCM) facilitates the generation and transfer of emission reduction credits between a partner country and Japan. A mitigation project implemented in the partner country reduces greenhouse gas (GHG) emissions relative to a baseline scenario, generating measurable and verifiable emission reductions. These reductions are converted into carbon credits that are distributed between the host nation and Japan. Both governments jointly oversee critical procedures—including measurement, reporting, and verification (MRV) as well as credit authorization—thereby ensuring process transparency and carbon integrity. The framework demonstrates that while a portion of the generated emission reductions supports the partner country's Nationally Determined Contribution (NDC), another portion is transferred to Japan for use under its Green Transformation Emissions Trading System (GX-ETS).

A central challenge in Article 6 negotiations is avoiding double counting, which occurs when both the transferring and receiving entities claim the same emission reduction. To maintain high environmental standards, Uzbekistan incorporates the JCM's rigorous MRV methodologies within its bilateral climate strategies. By applying Corresponding Adjustments in its national greenhouse gas inventory accounting, Uzbekistan fulfills the transparency requirements of the Paris Agreement, ensuring that its generated credits are accurate, non-

¹⁰ Republic of Uzbekistan. (2025). Decree of the President of the Republic of Uzbekistan No. DP-110 dated July 7, 2025 "On measures for participation in the international carbon units market". Lex.uz. <https://lex.uz/docs/7616216>

¹¹ Source: Ministry of the Environment, Japan (2026) [11][1].



duplicated, and internationally recognized.

Bilateral climate partnerships across regions offer practical benchmarks for targeted sectoral interventions. A prominent JCM project in Kyrgyzstan illustrates the integration of low-carbon technologies into public infrastructure. In Bishkek, where coal-based space heating contributes significantly to GHG emissions and urban air pollution—with fine particulate matter (PM_{2.5}) levels frequently exceeding international health guidelines—the project deploys ground-source heat pump (GSHP) systems alongside building efficiency enhancements in public facilities, such as schools and kindergartens. By utilizing ambient geothermal energy for heating and cooling, the project reduces local coal reliance, thereby mitigating CO₂ emissions while improving regional air quality and public health outcomes. As the inaugural JCM project in Central Asia, this initiative serves as a scalable model for combining urban climate mitigation with local pollution abatement¹².

ANALYSIS AND RESULTS

Institutional Framework and NDC 3.0 Objectives of Uzbekistan

A comparative analysis of the Kyoto Protocol (KP) and the Paris Agreement (PA) highlights three core structural dimensions that differentiate the earlier implementation limitations of the Kyoto framework from the operational mechanisms of the Paris Agreement (Table 1).

Table 1
Structural Comparison: Kyoto Protocol Implementation Limitations vs. Paris Agreement Mechanisms

Dimension	Kyoto Protocol (Top-Down Architecture)	Paris Agreement (Bottom-Up Pragmatism)
Governance Structure	• Top-down approach • Centrally mandated emission targets • Rigid compliance and enforcement mechanisms	• Bottom-up approach • State-defined Nationally Determined Contributions (NDCs) • Voluntary participation and national oversight
Market Orientation	• Exclusively market-based • Restricted focus on CDM, JI, and International Emissions Trading (IET)	• Hybrid orientation • Integrated market-based mechanisms (Art. 6.2/6.4) and non-market approaches (Art. 6.8)
Level of Action	• International scale • Centralized global governance and oversight • Unified global compliance frameworks	• National and bilateral scale • State-led climate policies • Direct bilateral cooperative linkages (e.g., Joint Crediting Mechanism – JCM)

Table 1 highlights the transition of global climate governance from the strict and centralized model of the Kyoto Protocol to the more flexible and nationally driven approach of the Paris Agreement.

In the Kyoto framework, climate governance was largely centralized. Developed countries accepted internationally negotiated and legally binding emission targets, supported by compliance enforcement mechanisms. However, its market orientation was narrowly focused on three formal mechanisms: the Clean Development Mechanism (CDM), Joint Implementation (JI), and International Emissions Trading (IET). The Kyoto era demonstrated that a centralized, one-size-fits-all global market presents operational and political challenges. As Roger Pielke describes in the «iron law of climate policy,» policies that overly constrain economic growth face implementation hurdles (Pielke, 2010)¹³. Consequently, institutional inertia and fluctuating carbon prices yielded limited incentives for long-term investments in zero-carbon technologies.

In contrast, the Paris Agreement adopts a bottom-up, pragmatic framework, enabling countries to define their Nationally Determined Contributions (NDCs) based on domestic priorities and capacities. Climate action has progressively shifted toward the national and bilateral levels, fostering direct cooperation as illustrated by the Joint Crediting Mechanism (JCM). The Paris Agreement allows emerging economies like Uzbekistan to chart green trajectories aligned with national development objectives.

Uzbekistan has established a structured institutional framework to support the achievement of its national targets:

- **Climate Council under the President:** Established in 2024 as the supreme advisory body for climate mitigation and adaptation policy;

¹² Ministry of the Environment, Japan. (2026, February). Japan's efforts on environmental cooperation [Conference presentation slide]. Uzbekistan–Japan Environmental Forum, Tashkent, Uzbekistan.

¹³ Pielke, R. J. (2010). The climate fix: What scientists and politicians won't tell you about global warming. Basic Books.



- **National Committee of Environmental Protection and Climate Change:** The primary executive body shaping the national climate agenda;
- **National Center for Climate Change:** The operational body of the Climate Council, coordinating Article 6 participation and serving as the designated authority for the Loss and Damage Fund (LDF) and the «Green Cities» initiative;
- **Ministry of Economy and Finance (Green Economy Department):** Coordinates policy formulation for engagement in international climate mechanisms, particularly under Article 6;
- **National Agency for Energy Efficiency:** Tasked with implementing energy loss reduction programs and overseeing the energy-saving services market.

The development of a national green taxonomy framework in Uzbekistan represents a key step toward structuring sustainable finance and aligning investment flows with environmental priorities [6]. Complementing this effort, the Green Economy Platform (*Yashil Iqtisodiyot Platform*) serves as a practical tool for coordinating policies, sharing data, and promoting stakeholder engagement in the transition toward a low-carbon economy [2]. Artificial intelligence capabilities were also utilized during the editing process of this text.

In the case of Uzbekistan, two distinct implementation pathways emerge:

1. Realistic Scenario: Assumes the implementation of currently funded projects, estimating an emissions reduction of 62–65 million tons of CO₂-eq; however, total emissions increase by 4% to 6.5% by 2035 under this baseline.

2. Ambitious Scenario: Targets a reduction of 85–95 million tons of CO₂-eq (UNFCCC, 2025) [2]. This model projects an overall 6% to 11% reduction in total emissions, relying on international climate finance and bilateral mechanisms for technology transfer.

Documentary evidence indicates that the mechanism Uzbekistan is joining has attained operational maturity. As of August 2025, Japan had signed bilateral JCM agreements with 31 partner countries, encompassing a portfolio of 271 projects [GEC, 2025]¹⁴, with project methodologies and monitoring records transparently accessible via the IGES JCM database [IGES, 2026]¹⁵.

Synthesizing the comparative and case evidence, three principal results emerge:

First, Uzbekistan's institutional design aligns with the Paris Agreement architecture, supporting participation under Article 6.2.

Second, the 23–30 million ton CO₂-eq margin between the Realistic and Ambitious Scenarios defines the scale of additional mitigation achievable through international finance and bilateral technology transfers.

Third, the established institutional framework and 2025 legal acts fulfill the core participation requirements of Article 6.2—namely authorization, tracking, and corresponding adjustments—indicating formal readiness to host JCM projects.

The empirical results support the working hypothesis and align with existing peer-reviewed literature. The alignment of Uzbekistan's domestic framework with the bottom-up architecture of the Paris Agreement reinforces the findings of Michaelowa et al. [2019] [7], who established that sustainable carbon markets depend on national ownership and robust accounting integrity. Specifically, Uzbekistan's mandate for Corresponding Adjustments and the establishment of a centralized state emissions registry address key market integrity risks—such as double counting and baseline inflation—that historically constrained Kyoto-era mechanisms. Furthermore, the quantified gap of 23–30 million tons of CO₂-equivalent between the Realistic and Ambitious Nationally Determined Contribution (NDC) scenarios reflects, at a national scale, the cooperation dividend modeled globally by Edmonds et al. [2021] [8]: achieving mitigation targets beyond domestically financed baselines becomes economically viable when Article 6 transfers lower marginal abatement costs.

These findings carry significant sectoral implications. Given that the energy sector generates 64% of Uzbekistan's total greenhouse gas emissions [UNFCCC, 2025] [2], the economic multiplier evidence demonstrated by Sugino et al. [2017] [9] indicates that Uzbekistan should prioritize Joint Crediting Mechanism (JCM) projects targeting industrial energy efficiency and municipal heating infrastructure. Such interventions offer high economic returns, substantial emission reduction potential, and immediate local air quality co-benefits. The empirical case of ground-source heat pump deployment in Bishkek, Kyrgyzstan, supports this prioritization, echoing the conclusions of the Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report, which highlights international financial and technological cooperation as essential drivers for accelerating mitigation in developing economies [IPCC, 2022]¹⁶.

14 Global Environment Centre Foundation (GEC). 2025. "Overview of the Joint Crediting Mechanism (JCM)." Accessed 2025. <https://gec.jp/jcm/about/>.

15 Institute for Global Environmental Strategies (IGES). 2026. "IGES Joint Crediting Mechanism (JCM) Database." Accessed 2026. <https://www.iges.or.jp/en/pub/iges-joint-crediting-mechanism-jcm-database/en>.

16 IPCC. (2022). Climate change 2022: Mitigation of climate change. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press. <https://www.ipcc.ch/report/ar6/wg3/>



LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

Several methodological limitations qualify these conclusions:

1. Lack of Ex-Post Implementation Data: Because Uzbekistan's national carbon market is in its operational inception, the analysis relies primarily on ex-ante documentary and regulatory evidence rather than long-term monitoring data.

2. Contextual Extrapolation: Portfolio performance metrics for the JCM reflect implementation dynamics in other partner jurisdictions and cannot be assumed to apply mechanically to Uzbekistan's national market.

3. Documentary Selection Bias: Document analysis remains subject to the selective availability and disclosure of official state sources.

To address these limitations, future research should focus on three key areas:

• **Empirical Verification:** Evaluating initial Uzbek JCM projects against registered baselines as empirical monitoring data becomes publicly accessible.

• **Mechanism Comparison:** Conducting comparative cost-effectiveness analyses between bilateral crediting under Article 6.2 and the centralized multilateral framework under Article 6.4.

• **Socio-Economic Assessment:** Modeling the distributional and economic impacts of carbon crediting activities at the firm and household levels.

CONCLUSION AND RECOMMENDATIONS

Bilateral mechanisms serve as more than carbon credit exchange tools; they offer a structural pathway for transferring advanced technologies and accelerating national industrial modernization. Uzbekistan can overcome long-standing implementation barriers by maintaining the legal authority established under the 2025 Law «On Limiting Greenhouse Gas Emissions» (No. ZRU-1073)¹⁷. This legislation establishes the national registry of greenhouse gas emission reductions, delivering the regulatory predictability required to attract long-term international investment. Artificial intelligence capabilities were also utilized during the editing process of this text.

The Paris Agreement, through its market and non-market mechanisms, offers a flexible framework that allows countries to tailor climate action strategies to domestic priorities. However, the core policy challenge lies not merely in accessing these international tools, but in selecting and executing the mechanisms best aligned with national development goals. For Uzbekistan, ensuring operational efficiency requires a context-specific evaluation of institutional capacity, economic framework, and long-term decarbonization priorities.

REFERENCES

1. Yang, Y., et al. (2024). Uzbekistan, 2024–2028: Fostering deep reforms for a sustainable transformation to a green and inclusive economy (Annex 6: Country Climate Action Plan). Asian Development Bank. <https://www.adb.org/sites/default/files/linked-documents/cps-uzb-2024-2028-ccp.pdf>
2. United Nations Framework Convention on Climate Change (UNFCCC). (2025). Third Nationally Determined Contribution of Uzbekistan. <https://unfccc.int/sites/default/files/2025-11/Uzbekistan%20Third%20NDC.pdf>
3. Asadnabizadeh, M. A. M., & Moe, E. (2024). A review of global carbon markets from Kyoto to Paris and beyond: The persistent failure of implementation. *Frontiers in Environmental Science*, 12, Article 1368105. <https://doi.org/10.3389/fenvs.2024.1368105>
4. Marcu, A. (2012). Expanding carbon markets through new market-based mechanisms: A synthesis of discussions and submissions to the UNFCCC. Centre for European Policy Studies. <https://cdn.ceps.eu/wp-content/uploads/2012/05/Expanding%20Carbon%20Markets%20through%20NMMs.pdf>
5. Koakutsu, K., Amellina, A., Rocamora, A. R., & Umemiya, C. (2016). Operationalizing the Paris Agreement Article 6 through the Joint Crediting Mechanism (JCM): Key issues for linking market mechanisms and the Nationally Determined Contributions (NDCs) (Discussion Paper). Institute for Global Environmental Strategies (IGES). https://www.iges.or.jp/en/publication_documents/pub/discussionpaper/en/5484/Operationalizing_the_Paris_Agreement_Article_6_through_the_JCM-Key_Issues_for_Linking_Market_Mechanisms_and_the_NDCs.pdf
6. Ramstein, C., et al. (2019). State and trends of carbon pricing 2019. World Bank Group. <https://documents1.worldbank.org/curated/en/191801559846379845/pdf/State-and-Trends-of-Carbon-Pricing-2019.pdf>
7. Michaelowa, A., Shishlov, I., & Brescia, D. (2019). Evolution of international carbon markets: Lessons for

¹⁷ Republic of Uzbekistan: Law “On Limiting Greenhouse Gas Emissions” (No. O’RQ-1073, 07.07.2025). https://cdn.climatepolicyradar.org/navigator/UZB/2025/law-on-limiting-greenhouse-gas-emissions-zru-1073_5854fa4effcf4027f38ef51aa444ea12.pdf



- the Paris Agreement. WIREs Climate Change, 10(6), Article e613. <https://doi.org/10.1002/wcc.613>
8. Edmonds, J., Yu, S., McJeon, H., Forrister, D., Aldy, J., Hultman, N., Cui, R., Waldhoff, S., Clarke, L., de Clara, S., & Munnings, C. (2021). How much could Article 6 enhance Nationally Determined Contribution ambition toward Paris Agreement goals through economic efficiency? *Climate Change Economics*, 12(2), Article 2150007. <https://doi.org/10.1142/S201000782150007X>
 9. Sugino, M., Morita, M., Iwata, K., & Arimura, T. H. (2017). Multiplier impacts and emission reduction effects of Joint Crediting Mechanism: Analysis with a Japanese and international disaggregated input–output table. *Environmental Economics and Policy Studies*, 19(3), 635–657. <https://doi.org/10.1007/s10018-016-0177-y>
 10. Republic of Uzbekistan. (2025). Decree of the President of the Republic of Uzbekistan No. DP-110 dated July 7, 2025 «On measures for participation in the international carbon units market». Lex.uz. <https://lex.uz/docs/7616216>
 11. Ministry of the Environment, Japan. (2026, February). Japan's efforts on environmental cooperation [Conference presentation slide]. Uzbekistan–Japan Environmental Forum, Tashkent, Uzbekistan.
 12. Pielke, R. J. (2010). *The climate fix: What scientists and politicians won't tell you about global warming*. Basic Books.
 13. Global Environment Centre Foundation (GEC). (2025). Overview of the Joint Crediting Mechanism (JCM). <https://gec.jp/jcm/about/>
 14. Institute for Global Environmental Strategies (IGES). (2026). IGES Joint Crediting Mechanism (JCM) database. <https://www.iges.or.jp/en/pub/iges-joint-crediting-mechanism-jcm-database/en>
 15. IPCC. (2022). *Climate Change 2022: Mitigation of Climate Change*. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change (P. R. Shukla, J. Skea, R. Slade, et al., Eds.). Cambridge University Press. <https://www.ipcc.ch/report/ar6/wg3/>
 16. Republic of Uzbekistan. (2025). Law of the Republic of Uzbekistan No. ZRU-1073 dated July 7, 2025 «On Limiting Greenhouse Gas Emissions». Climate Policy Radar. https://cdn.climatepolicyradar.org/navigator/UZB/2025/law-on-limiting-greenhouse-gas-emissions-zru-1073_5854fa4effcf4027f38ef51aa444ea12.pdf



IQTISODIYOT & TARAQQIYOT

Ijtimoiy, iqtisodiy, texnologik, ilmiy, ommabop jurnal

Ingliz tili muharriri: Feruz HAKIMOV

Musahhih: Zokir ALIBEKOV

Sahifalovchi va dizayner: Hasan MAQSUDOV

2026. № 9/3

© Materiallar ko'chirib bosilganda "Yashil" iqtisodiyot va taraqqiyot" jurnali manba sifatida ko'rsatilishi shart. Jurnalda bosilgan material va reklamalardagi dalillarning aniqligiga mualliflar ma'sul. Tahririyat fikri har vaqt ham mualliflar fikriga mos kelamasligi mumkin. Tahririyatga yuborilgan materiallar qaytarilmaydi.

Mazkur jurnalda maqolalar chop etish uchun quyidagi havolalarga maqola, reklama, hikoya va boshqa ijodiy materiallar yuborishingiz mumkin.
Materiallar va reklamalar pullik asosda chop etiladi.

El.Pochta: sq143235@gmail.com

Bot: @iqtisodiyot_77

Tel.: 93 718 40 07

Jurnalga istalgan payt quyidagi rekvizitlar orqali obuna bo'lishingiz mumkin. Obuna bo'lgach, @iqtisodiyot_77 telegram sahifamizga to'lov haqidagi ma'lumotni skrinshot yoki foto shaklida jo'natishingizni so'raymiz. Shu asosda har oygi jurnal yangi sonini manzilingizga jo'natamiz.

"Yashil" iqtisodiyot va taraqqiyot" jurnali 03.11.2022-yildan O'zbekiston Respublikasi Prezidenti Adminstratsiyasi huzuridagi Axborot va ommaviy kommunikatsiyalar agentligi tomonidan №566955 reyestr raqami tartibi bo'yicha ro'yxatdan o'tkazilgan.

Litsenziya raqami: №046523. PNFL: 30407832680027

Manzilimiz: Toshkent shahar, Mirzo Ulug'bek tumani
Kumushkon ko'chasi, 26-uy.



Jurnal sayti: <https://yashil-iqtisodiyot-taraqqiyot.uz>
