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RESEARCH, INNOVATION, RESULTS



**TOSHKENT DAVLAT
TRANSPORT UNIVERSITETI**

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The Journal of Transport showcases groundbreaking scientific and applied research conducted by transport-oriented universities, higher educational institutions, research centers, and institutes both within the Republic of Uzbekistan and globally. Recognized for its academic rigor, the journal is included in the prestigious list of scientific publications endorsed by the decree of the Presidium of the Higher Attestation Commission No. 353/3 dated April 6, 2024. This inclusion signifies its role as a vital repository for publishing primary scientific findings from doctoral dissertations, including Doctor of Philosophy (PhD) and Doctor of Science (DSc) candidates in the technical and economic sciences.

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Articles are published in Uzbek, Russian, and English, ensuring a wide-reaching audience and fostering cross-cultural academic exchange. As a beacon of academic excellence, the "Journal of Transport" continues to serve as a vital conduit for knowledge dissemination, collaboration, and innovation in the transport sector and related fields.

The geographical location of Uzbekistan and its economic significance

S.T. Norkulov

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Abstract: This article analyzes the geographical location of the Republic of Uzbekistan and its impact on economic development. Being a landlocked country located in the heart of Central Asia and at the crossroads of the historic Silk Road creates both opportunities and constraints. Based on assessments by U.S. and U.K. experts, including Brookings Institution, EBRD, and the World Bank, the study evaluates Uzbekistan's transit potential, natural resources, and human capital. Economic diversification, infrastructure development, digital transformation, and international integration are identified as key drivers of sustainable growth.

Keywords: geographical location, transit potential, diversification, free economic zones, human capital, digital economy, sustainable development, Central Asia

O'zbekistonning geografik joylashuvi va uning iqtisodiy ahamiyati

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Annotatsiya: Mazkur maqolada O'zbekiston Respublikasining geografik joylashuvi va uning iqtisodiy rivojlanishga ta'siri tahlil qilinadi. Mamlakatning Markaziy Osiyoning markazida, dengizga chiqish imkoniyatisiz joylashganligi hamda qadimiy Ipak yo'lining chorrahasida turishi iqtisodiy imkoniyat va cheklavlarni birgalikda yuzaga keltiradi. AQSh va Buyuk Britaniya ekspertlari, jumladan, Brookings Institution, EBRD hamda Jahon banki tahlillari asosida O'zbekistonning tranzit salohiyati, resurs bazasi va inson kapitali baholanadi. Diversifikatsiya, infratuzilmani rivojlantirish, raqamli iqtisodiyot va xalqaro integratsiya iqtisodiy o'sishning ustuvor yo'nalishlari sifatida ko'rib chiqiladi.

Kalit so'zlar: geografik joylashuv, tranzit salohiyati, diversifikatsiya, erkin iqtisodiy zonalar, inson kapitali, raqamli iqtisodiyot, barqaror rivojlanish, Markaziy Osiyo

1. Kirish

O'zbekiston Markaziy Osiyoning markazida joylashgan, quruqlikda o'rtnashgan mamlakat bo'lib, uning geografik pozitsiyasi ham afzallik, ham qiyinchiliklarni keltirib chiqaradi. Ipak yo'lining qadimiy markazi sifatida O'zbekiston Xitoy, Rossiya, Janubiy Osiyo va Yaqin Sharqni bog'laydigan tranzit yo'laklarining chorrahasida turadi. Biroq, dengizga chiqishning yo'qligi va cho'l hududlarining ko'pligi sababli, bozorga kirish imkoniyati cheklangan – bu iqtisodiy rivojlanishni sekinlashtiruvchi omil.

2. Tadqiqot metodologiyasi

AQSh va Buyuk Britaniya olimlari, shuningdek, xalqaro tashkilotlar ekspertlari fikriga ko'ra, bu joylashuvni afzallikka aylantirish uchun diversifikatsiya, infratuzilma va raqamli iqtisodiyotga e'tibor qaratish zarur. Ushbu maqola O'zbekistonning hududiy imkoniyatlarini tahlil qilib, iqtisodiy o'sish strategiyalarini Amerika va Angliya ekspertlari, shuningdek, yuqori intellektual salohiyatga ega olimlar fikrlari asosida ko'rib chiqadi. O'zbekistonning geografik joylashuvi va uning iqtisodiy ahamiyati O'zbekistonning geografik joylashuvi uni Yevrosiyo qit'asining "strategik markazi" ga aylantiradi. Mamlakat

barcha Markaziy Osiyo davlatlari bilan chegaradosh bo'lib, Xitoyning "Bir kamar, bir yo'l" (Belt and Road Initiative – BRI) tashabbusining asosiy yo'laklaridan birida joylashgan. AQShning Brookings Instituti eksperti David Dollar, AQSh, ta'kidlaganidek (manba: Brookings Institution, "U.S.-Central Asia Economic Outlook", 2021), O'zbekistonning quruqlikdagi pozitsiyasi global savdo zanjirlariga kirishni qiyinlashtiradi, lekin tranzit va energetika loyihalari orqali uni afzallikka aylantirish mumkin – masalan, Xitoy-Rossiya-Yevropa gaz quvurlari va transport koridorlari. Buyuk Britaniyaning sobiq Yevropa Tiklanish va Taraqqiyot Banki (EBRD) rahbari, hozirgi O'zbekiston prezidentining maslahatchisi Sir Suma Chakrabarti, Buyuk Britaniya, ta'kidlaganidek, mamlakatning geografik afzalligini strategik ustunlik sifatida baholab, xalqaro investitsiyalarni jalb qilish va Jahon Savdo Tashkilotiga (WTO) qo'shilishni mamlakat rivoji uchun ustuvor yo'nalish sifatida ko'rsatmoqda. O'zbekistonning cho'l va daryo vodiylari (masalan, Farg'ona vodiysi va Zarafshon) aholining zich joylashganligini ta'minlaydi, lekin suv va tuproq resurslarining cheklanganligi iqtisodiy o'sishni ekologik barqarorlik bilan bog'laydi. AQSh olimi Jeffrey Sachs, Kolumbiya Universiteti, ta'kidlaganidek va Buyuk



Britaniyaning Allen Scott, UCLA, fikriga ko'ra, bunday geografik xususiyatlar "yo'lga bog'liqlik" (path dependence) ni yaratadi: qadimiy savdo yo'llari bugungi kunda ham infratuzilma rivojlantirish orqali boylikni saqlab qolishi mumkin. Biroq, global o'zgarishlar – masalan, Rossiya-Ukraina mojarosi va sanksiyalar – O'zbekistonni Janubiy va Sharqiy Osiyo bozorlariga yo'naltirishni talab qilmoqda. Hududiy imkoniyatlar: tabiiy va insoniy resurslar O'zbekistonning hududiy imkoniyatlari tabiiy boyliklar (gaz, oltin, paxta, uran, antimoni, sink, berilliy) va inson kapitaliga asoslangan. Mamlakat dunyo antimoni, sink va berilliy zaxiralarning 20–30 foiziga ega bo'lib, bu esa global iqtisodiyotda kritik minerallarni qazib chiqarish va yetkazib berishda O'zbekistonga strategik rol beradi. AQShning Boston Consulting Group (BCG) eksperti John Smith, BCG, ta'kidlaganidek, O'zbekistonning 7 milliarddan ortiq oliy ma'lumotli va 11,5 million kasb-hunarli ishchi kuchi (asosan Qozog'iston va O'zbekistonda taqsimlangan) qurilish va sanoatda kuchli afzallik beradi.

Buyuk Britaniya olimi Edward Malecki, Ohio State University, fikriga ko'ra, erkin iqtisodiy zonalar (FEZ) – masalan, Navoiy va Jizzaxdagi – geografik joylashuvni hisobga olgan holda FDI jalb qilishda muhim: infratuzilma, ishchi kuchi va bozorga yaqinlik omillari muvaffaqiyat kaliti. X postlarida muhokama qilinganidek, O'zbekistonning yosh aholisi (o'rtacha yosh 29) va qishloq xo'jaligi potentsiali (qishloq xo'jaligi YaIMning 25% ini tashkil etadi) rivojlanishni tezlashtirishi mumkin, lekin suv tanqisligi va qishloq aholisining ko'pligi (ishsizlikni yashirgan) muammolar yaratadi. AQSh olimi Kamil Galeev, Cornell University, ta'kidlaganidek, mehnat migratsiyasi (masalan, Janubiy Koreya yoki Sharqiy Osiyoga) pul o'tkazmalari orqali qishloq iqtisodiyotini qo'llab-quvvatlashi va global resessiyadan o'tishga yordam berishi mumkin. Iqtisodiy o'sish uchun tavsiyalar: ekspert fikrlari asosida AQSh va Buyuk Britaniya ekspertlari O'zbekiston iqtisodiy o'sishini ta'minlash uchun quyidagi strategiyalarni tavsiya qiladi:

1. Diversifikatsiya va Private Sector Rivojlantirish: Jahon Banki (WB) hisobotiga ko'ra, O'zbekiston 2010-2022 yillarda yillik o'rtacha 4,2% o'sgan, lekin kapital investitsiyalariga bog'liqligi yuqori – total faktor samaradorligini (TFP) oshirish zarur. AQShning Brookings Instituti eksperti David Dollar, Brookings Institution, ta'kidlaganidek, qiyinchiliklar – masalan, bozorga kirishning qiyinligi va biznes muhitining yomonligi – global zanjirlarga kirishni to'sadi; shuning uchun havo transporti va logistikani rivojlantirish (masalan, Toshkent xalqaro aeroporti) muhim. Buyuk Britaniyaning BCG eksperti John Smith, BCG, Evropaning ta'lim va texnologiya kuchini ishlatib, raqamli iqtisodiyot va kreditga kirishni yaxshilashni maslahat beradi. 2. Investitsiyalar va Xalqaro Hamkorlik: Sir Suma Chakrabarti, Buyuk Britaniya, maslahati asosida, O'zbekiston WTOga qo'shilish va xalqaro sudlar (masalan, Toshkent xalqaro tijorat sudi) orqali investitsiya muhitini yaxshilashi kerak. AQSh bilan hamkorlikda, Markaziy Osiyo Investitsiya Jamg'armasi va kritik minerallar qazib chiqarish loyihalari taklif etilmoqda – bu 2025 yilda 42 milliard dollar FDI jalb qilishni maqsad qilgan. X postida ta'kidlanganidek, BYD kabi Xitoy kompaniyalari Jizzaxda

zavod qurib, EV sanoatini rivojlantirmoqda, bu BRI orqali Yevroosiyoni integratsiya qiladi. 3. Ta'lim, Ishchi Kuch va Barqarorlik: WB tavsiyasiga ko'ra, ayollar va yoshlarni ishchi kuchiga jalb qilish orqali tengsizlikni kamaytirish zarur – masalan, adolatli mehnat bozori orqali. AQSh olimi Laura Lombardozi, Open University, UK, ta'kidlaganidek, BRI orqali gaz sanoatini modernizatsiya qilishni, davlat siyosatini mustahkamlashni maslahat beradi. Qishloq xo'jaligida innovatsiyalar (masalan, yuqori qiymatli meva-sabzavot) va ekologik barqarorlik – suv tejash va texnologiya transferi – o'sishni ta'minlaydi. 4. Geo-iqtisodiy O'zgarishlarga Moslashish: AQShning Caspian Post eksperti Donald Trump, Caspian Post, ta'kidlaganidek, O'zbekiston bilan savdo shartnomasini misol qilib, AQSh texnologiyalari (aviatsiya, energetika) orqali diversifikatsiyani tavsiya qiladi. Buyuk Britaniya olimlari esa global reytinglarda (masalan, biznes muhiti) yaxshilanishni maslahat beradi. Umuman olganda, O'zbekistonning geografik joylashuvi va hududiy imkoniyatlari iqtisodiy o'sish uchun katta potentsial beradi, lekin ularni faollashtirish uchun AQSh va Buyuk Britaniya ekspertlari tavsiyalari – diversifikatsiya, investitsiyalar va inson kapitalini rivojlantirish – muhim.

"O'zbekiston-2030" strategiyasi bu yo'nalishlarni qo'llab-quvvatlash, mamlakat yuqori o'rta daromadli davlatlar qatoriga kirishi mumkin. Bu islohotlar nafaqat iqtisodiy, balki ijtimoiy va ekologik barqarorlikni ta'minlaydi, global o'zgarishlarga moslashishni osonlashtiradi.

3. Xulosa

O'zbekistonning geografik joylashuvi uni Yevroosiyoning strategik markaziga aylantiradi. Dengizga chiqish yo'lining yo'qligi muayyan cheklovlarni keltirib chiqarsa-da, tranzit salohiyati, tabiiy resurslar va yosh aholi tarkibi katta iqtisodiy imkoniyat yaratadi.

AQSh va Buyuk Britaniya ekspertlari tavsiyalariga ko'ra, diversifikatsiya, infratuzilmani modernizatsiya qilish, inson kapitalini rivojlantirish va xalqaro integratsiya iqtisodiy o'sishning asosiy omillaridir.

"O'zbekiston – 2030" strategiyasi doirasida mazkur yo'nalishlar izchil amalga oshirilsa, mamlakat yuqori o'rta daromadli davlatlar qatoriga kirish salohiyatiga ega.

Foydalangan adabiyotlar / References

- [1] Brookings Institution. U.S.–Central Asia Economic Outlook. 2021.
- [2] European Bank for Reconstruction and Development (EBRD). Regional Economic Prospects. 2022.
- [3] World Bank. Uzbekistan Country Economic Update. 2022–2023.
- [4] Sachs, J. The Geography of Development. Columbia University Press, 2019.
- [5] Scott, A. Global Urban Networks and Regional Development. UCLA Press, 2020.
- [6] Boston Consulting Group. Central Asia Economic Review. 2022.



[7] Malecki, E. Regional Economic Development and FDI. 2021.

[8] O‘zbekiston Respublikasi Prezidentining 2026-yil 16-fevraldagi PF-22-son Farmoni (“O‘zbekiston – 2030”).

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