SHAHAR SHAROITIDA AVTOMOBILLARNING ENERGETIK SAMARADORLIGINI BAHOLASH

Djiyanbayev Sirojiddin Valiyevich,

Texnika fanlari bo'yicha falsafa doktori, dotsent,

Jizzax Politexnika instituti, Muhandislik maktabi rahbari,

sdjiyanbaev@bk.ru

Aliqulov G`olibjon Sherzod o`g`li

Jizzax Politexniika institut 2-kurs talabasi

golibaliqulov494@mail.com

Annotatsiya. Ushbu tadqiqotda O‘zbekiston Respublikasida energetika samaradorligini oshirish, qayta tiklanuvchi energiya manbalarini rivojlantirish hamda yoqilg‘i-energetika resurslaridan oqilona foydalanish bo‘yicha qabul qilingan normativ-huquqiy hujjatlar tahlil qilingan. Xususan, Prezident qarorlari va hukumat qarorlari asosida 2020–2022 yillarda elektr energiyasi, tabiiy gaz va neft mahsulotlarini tejashga qaratilgan maqsadli ko‘rsatkichlar o‘rganilgan. Shuningdek, global energetika resurslarining holati, neft zahiralari cheklanganligi, qayta tiklanuvchi energiya manbalarining ulushi hamda avtomobil transport vositalarining tez sur’atlarda o‘sishi natijasida yuzaga kelayotgan ekologik muammolar tahlil qilingan. O‘zbekistonda transport vositalari sonining ortishi va ularning atrof-muhitga ta’siri ham alohida ko‘rib chiqilgan. Tadqiqot yakunida energetik samaradorlikni oshirish va ekologik barqarorlikni ta’minlash bo‘yicha ilmiy asoslangan xulosalar berilgan.

Kaliy so`zlar. Energiya samaradorligi, qayta tiklanuvchi energiya, neft

resurslari, tabiiy gaz, avtomobil transporti, ekologik muammo, gibrid texnologiya, energetika siyosati, O‘zbekiston Respublikasi, energiya tejash.

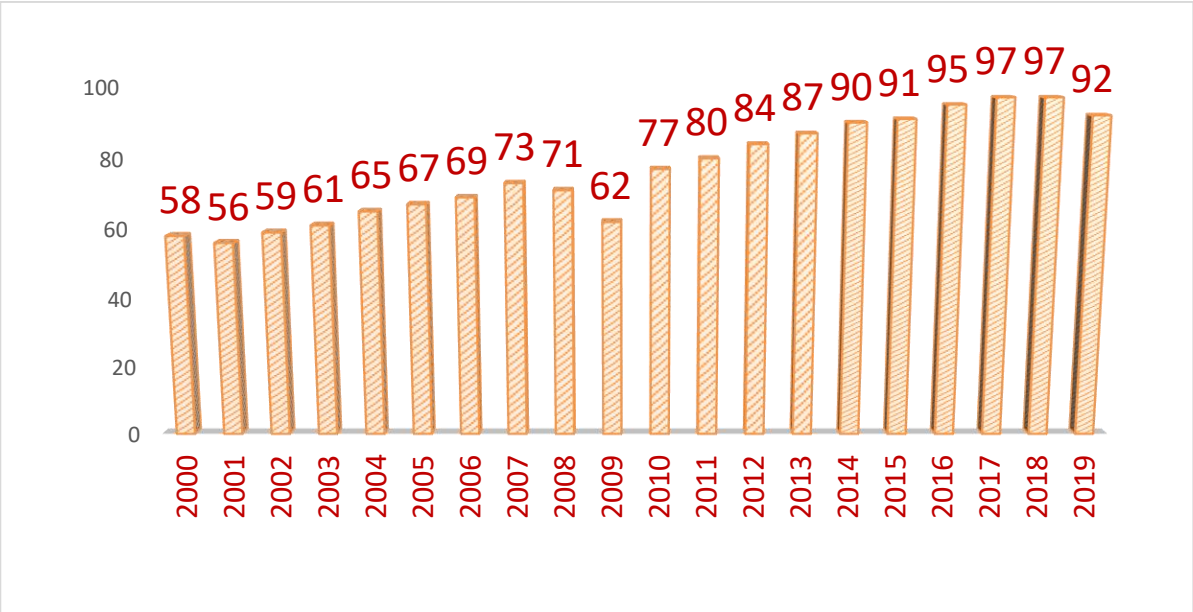
Abstract. This research analyzes the regulatory and legal documents adopted in the Republic of Uzbekistan aimed at increasing energy efficiency, developing renewable energy sources, and ensuring the rational use of fuel and energy resources. In particular, based on Presidential decrees and government resolutions, the target indicators for saving electricity, natural gas, and oil products during the 2020–2022 period are examined. Furthermore, the study analyzes the global state of energy resources, the limitations of oil reserves, the share of renewable energy sources, and the environmental challenges arising from the rapid growth of motor vehicle usage. The increase in the number of vehicles in Uzbekistan and its specific impact on the environment are also considered. The research concludes with evidence-based findings and recommendations for enhancing energy efficiency and ensuring environmental sustainability.

Keywords: Energy efficiency, renewable energy, oil resources, natural gas, motor transport, environmental problem, hybrid technology, energy policy, Republic of Uzbekistan, energy saving.

O‘zbekiston Respublikasi prezidenti Sh.Mirziyoevning 2019 yil 22 avgustdagi ‘‘Iqtisodiyot tarmoqlari va ijtimoiy sohaning energiya samaradorligni oshirish,energiya tejovchi texnologyalarni joriy etish va qayta tiklanuvchi energiya manbalarini rivojlantirishning tezkor chora tadbirlari tug‘risida’’gi PQ-4422 sonli qarorda 2019 yil 20 dekabrga qadar 2020-2022 yillarda kamida 2.4 millard kVt/soat elektr energiyasi, 2,4 milliard metr kub tabiiy gaz va 20 ming tonna neft maxsulotlarini tejashni nazarda tutuvchi iqtisodiyot tarmoqlari bo‘yicha energiya samaradorligni oshirish va yoqilg‘i enirgetika resurslarini tejash maqsadli kursatkichlari va

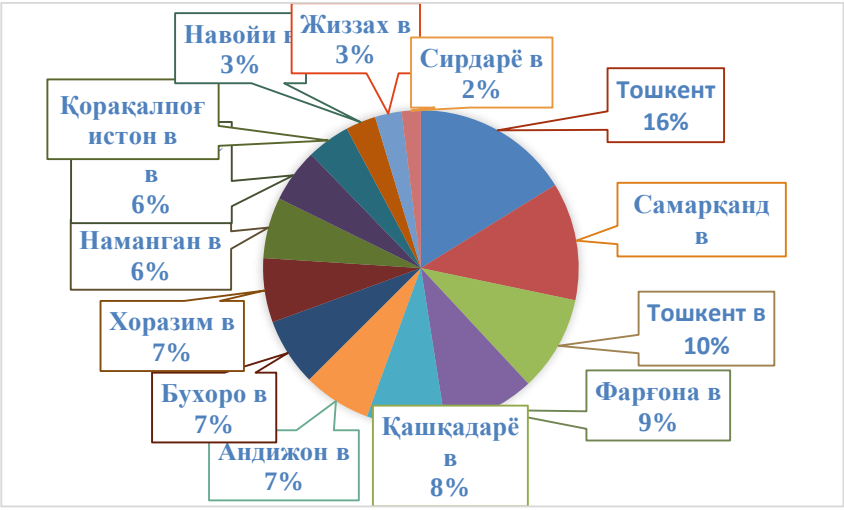
O‘zbekiston Respublikasi Prezidentining 2017 yil 26 maydagi PQ-3012 sonli «2017-2021 yillarda qayta tiklanuvchi energetikani yanada rivojlantirish, iqtisodiyot tarmoqlari va ijtimoiy sohada energiya samaradorligini oshirish chora-tadbirlari dasturi to‘g‘risida»gi qarori, Vazirlar Mahkamasining 2014 yil 23 iyundagi 164-son «Neftni qayta ishlash maxsulotlaridan foydalanish qoidalarini tasdiqlash to‘g‘risida» gi qarori, O‘zbekiston Respublikasining 2007 yil 26 sentabrdagi O‘RQ-116 son ««Energiyadan oqilona foydalanish to‘g‘risida»gi «O‘zbekiston Respublikasi qonuniga o‘zgartishlar kiritish haqida» gi qonuni va Vazirlar Mahkamasining 2006 yil 7 avgustdagi 164-son «Yoqilg‘i-energetika resurslari iste’molchilarini energetika tekshiruvidan va ekspertizadan o‘tkazish qoidalarini tasdiqlash to‘g‘risida» qarori hamda mazkur faoliyatga tegishli me’yoriy-huquqiy xujjatlarda belgilangan vazifalarni amalga oshirishga ushbu dissertatsiya tadqiqoti muayyan darajada xizmat qiladi. Bugungi kunda butun dunyoda global muammo bo‘lib turgan energetika VP statistik tekshiruvining yillik hisobotiga ko‘ra, joriy yil boshiga kelib dunyoda isbotlangan neftning umumiy hajmi 1,7 trln barrelni tashkil yetgan. Eslatib o‘tamiz, 2018 yilda jahon bozorida neft taqchilligiga duch kelgan: yer qa’ridan kuniga 94,7 mln barrel qazib olingan. Bunday ko‘rsatkichlar bilan neft insoniyatga yana 50 yil yetishi mumkunligi taxmin qilingan. Shu sababli butun dunyo olimlari bu global muammo ustida ishlashmoqda va qayta tiklanadigan energiyalarga katta qiziqish bildirilmoqda. 2018 (IEA, 2020) da global elektr energiyasi ishlab chiqarishda turli manbalarning % ulushi. Ko‘mir (38.0 %) Tabiiy gaz (23.0 %) (16.2% Gidroenergiya) (10.1% yadro) (4.8% shamol) (neft 2.9 %) Chiqindilardan biofaol va yenergiya (2.4 %) (2.1% quyosh) Geotermalnaya va boshqa (0.5 %). O‘zbekistonda qayta tiklanadigan energiya salohiyati yesa Gidroenergetika (9.2 mln t.n.e)Termal energiya (67000 mln t.n.e) Shamol energiya (50984.60 mln t.n.e) Quyosh energiyasi (177mln t.n.) Shunday yekan avtomobil transport vositalarining global o‘sishi dunyoda 1986 yilda avtomobillar soni 500 million donaga teng edi. Ular orasida yengil

avtomobillar, turli yuk avtomobillari, avtobuslar bor. Xozirgi kunda dunyo bo‘ylab qancha mashina borligini aniq aytish juda qiyin. Shuning uchun bu savolga faqat taxminiy javob bo‘lishi mumkin. Mutaxassislarning o‘rtacha hisob-kitoblariga ko‘ra, sayyoramizda 1,2 milliard mashina harakatda. 1.1 grafikda 2000-dan 2019-ga qadar butun dunyo bo‘ylab avtomobil ishlab chiqarish (million avtomobilda)



1.1. rasm. Avtomobillar ishlab chiqarish (mln dona).

O‘zbekistonda esa bu ko‘rsatkichlar jismoniy shaxslarga tegishli 2 million 580 ming 133 avtomobildan ortiq transport vositalari ro‘yxatdan o‘tgan deb xabar berdi. Davlat statistika qo‘mitasi matbuot xizmati "Gazeta.uz" ga.. Jumladan 2020 yil 1 yanvar holatiga ko‘ra 2410421 - avtomashinalar; 150294 - yuk tashish; 5072 - avtobuslar; 10590 - mikroavtobuslar; 3756 - maxsus transport. ***1.2 rasim*** butun O‘zbekiston Respublikasida transport vositalari viloyatlar kesimida % da keltirilgan.



1.2. rasm. Avtomobillar soni (Respublika kesimida).

Hozirgi kunda insoniyat oldida turgan dolzarb muammolardan biri avtomobil transport vositalarining global o‘sishi – atrof muhitga antropogen ta’sirni kamaytirish hamda neft va gazning o‘rnini bosadigan alternativ energiya manbalarini kengaytirishdir. Amaldagi energetikada bu muammoni hal qilish mumkin. Ammo, avtotransportda uran, toriy, ko‘mir, bioyoqilg‘i kabi yangi, kam chiqindili energiya manbalari kabi yoqilg‘ilarga mo‘ljallangan qurilmalarning katta hajmli bo‘lganligi sababli, ulardan foydalanish ancha qiyinchiliklarni keltirib chiqaradi shunday bulsada, dunyo olimlari va ko‘zga ko‘ringan kompaniyalarning hozirgi kunda gibrid yuritmali avtomobillar turlari va soni rivojlanishini taqozo etmoqda (1.3-rasm).

I bob buyicha xulosa.

1. Ijtimoiy yunaltirilgan bozor iktisodiyoti shakllanayotgan xozirgi sharoitda shaxar yulovchilar transportini boshkarish tizimini takomillashtirishda sifat jixatidan yangi talablar kuyilmokda. Avtomobil transporti umuman transport tizimining samarali faoliyat yuritishi, uning mamlakat iktisodiyotidagi ulushi boshkaruv bilan boglik. Shaxar jamoat transportida innovatsion menejment - cheklangan resurslar sharoitida mavjud imkoniyatlar orkali maksimal samaraga erishish vazifasini bajaradi.

2. Iktisodiyotning innovatsion rivojlanishini talab etuvchi bugungi sharoitda shaxar jamoat transportida uzini-uzi tashkil etish va sifatini oshirishni umumiktisodiy manfaatlar bilan uygunlashtirgan xolda amalga oshirish murakkab ilmiy-amaliy masalalardan xisoblanadi.

3. Innovatsiya yutukdarining iktisodiy natijalari ishlab chikarish jarayonida moddiy resurslarni, maxsulot birligiga sarflanadigan jonli va buyumlashgan mexnatni tejashni, kishi boshiga mexnat unumdorligining oshib borishini, atrof-muxitning ekologik jixatdan ifloslanish darajasini kamaytirishni ta’minlashda, ishlab chikarish, ijtimoiy soxada band bulganlarning ish xaki va daromadlarining usib borishi, kam ta’minlangan oilalarni ijtimoiy ximoyalash darajasini oshib borishi xamda ijtimoiy infratuzilmani rivojlanib borishida ifodalanadi.

4. Uzbekistonda Mustakillik yillarida innovatsion iktisodiyotni shakllantirish, innovatsion faoliyatning me’yoriy-uukukiy bazasini yanada rivojlantirish va takomillashtirish, ilm-fan va ishlab chikarishni integratsiyalashtirish mexanizmini mustaukamlashga katta e’tibor karatilib, maxsus muassasa va tashkilotlarda ilmiy tadkikot va konstruktorlik ishlarini davlat tomonidan maksadli kullab -kuvvatlash tizimi yaratilmokda.

Xulosa. Ishdan shunday xulosa qilish mumkinki, bugungi kunda dunyo miqyosida energetika resurslarining cheklanganligi va ekologik muammolarning keskinlashuvi davlatlarni muqobil energiya manbalarini rivojlantirishga majbur qilmoqda. O‘zbekiston Respublikasida ham energiya samaradorligini oshirish, resurslarni tejash va qayta tiklanuvchi energiya manbalarini keng joriy etish bo‘yicha muhim islohotlar amalga oshirilmoqda.Avtomobil transportining tez o‘sishi esa energiya iste’moli va atrof-muhitga salbiy ta’sirni kuchaytirmoqda. Shu sababli gibrid va ekologik toza transport vositalarini rivojlantirish dolzarb masalaga aylangan. Umuman olganda, energetika sohasida innovatsion texnologiyalarni joriy etish, resurslardan oqilona

foydalanish va ekologik xavfsizlikni ta’minlash kelajak barqaror rivojlanishining asosiy omili hisoblanadi

FOYDALANILGAN ADABIYOTLAR

1. Abreha, D.: Analyzing public transport performance using efficiency measures and spatial
analysis, the case of Addis Ababa Ethiopia. International Institute of Geo-information Science and Earth Observation, Enschede, The Netherlands, March 2007
2. Murray, A.T., et al.: Public transportation access. Transp. Res. -D 3(5), 319–328 (1998)
3. Oranga, B.: Addis Ababa on the frontier of sustainable transport for African cities, Addis
Ababa, Ethiopia (2015)
4. Boris, T., Szpytko, J.: Telematics is it useful and safety? African perspectives. Arch. Transp. Syst. Telemat. 8(2), 5–7 (2015)
5. Fenta, T.: Demands for urban public transportation in Addis Ababa. J. Intell. Transp. Urban
Plan. 2(3), 81–88 (2014)
6. Janecki, R.: Formula of integrated territorial investments as an instrument to stimulate
applications of intelligent transportation systems. Silesian University of Technology, Katowice, Poland (2014)
Abreha, D.: Analyzing public transport performance using efficiency measures and spatial
analysis, the case of Addis Ababa Ethiopia. International Institute of Geo-information Science and Earth Observation, Enschede, The Netherlands, March 2007
2. Murray, A.T., et al.: Public transportation access. Transp. Res. -D 3(5), 319–328 (1998)

3. Oranga, B.: Addis Ababa on the frontier of sustainable transport for African cities, Addis
Ababa, Ethiopia (2015)
4. Boris, T., Szpytko, J.: Telematics is it useful and safety? African perspectives. Arch. Transp. Syst. Telemat. 8(2), 5–7 (2015)
5. Fenta, T.: Demands for urban public transportation in Addis Ababa. J. Intell. Transp. Urban
Plan. 2(3), 81–88 (2014)
6. Janecki, R.: Formula of integrated territorial investments as an instrument to stimulate
applications of intelligent transportation systems. Silesian University of Technology, Katowice, Poland (2014
Abreha, D.: Analyzing public transport performance using efficiency measures and spatial
analysis, the case of Addis Ababa Ethiopia. International Institute of Geo-information Science and Earth Observation, Enschede, The Netherlands, March 2007
2. Murray, A.T., et al.: Public transportation access. Transp. Res. -D 3(5), 319–328 (1998)
3. Oranga, B.: Addis Ababa on the frontier of sustainable transport for African cities, Addis
Ababa, Ethiopia (2015)
4. Boris, T., Szpytko, J.: Telematics is it useful and safety? African perspectives. Arch. Transp. Syst. Telemat. 8(2), 5–7 (2015)
5. Fenta, T.: Demands for urban public transportation in Addis Ababa. J. Intell. Transp. Urban
Plan. 2(3), 81–88 (2014)

6. Janecki, R.: Formula of integrated territorial investments as an instrument to stimulate
applications of intelligent transportation systems. Silesian University of Technology, Katowice, Poland (2014
1. PEÑALOSA, E. Appropriate transport for the Third-world city. Urban Transport for Growing Cities – High
2. Capacity Bus Systems (Ed: G. Tiwari), Macmillan India Ltd., New Delhi, pp 1–10, 2002
3. KHAROLA, P.S., GOPALKRISHNA, B., and PRAKASH, D.C., Reforms in the Public Transport – The
4. Need of the Hour, in Transportation Systems: Status and Directions (Eds. A. Kanda et al.), Phoenix
5. Publishing House Pvt. Ltd, N. Delhi, 2002
6. KHAROLA, P.S., GOPALKRISHNA, B., and PRAKASH, D.C., Monitoring Punctuality using Radio
7. Frequency Method, Indian Journal of Transport Management, Vol 25-6, pp 405-412, 2001
8. O‘zbekiston Respublikasi Vazirlar Mahkamasi. “Neftni qayta ishlash mahsulotlaridan foydalanish qoidalarini tasdiqlash to‘g‘risida”gi 164-son qarori, 2014-yil 23-iyun.