



Eurasian Development Bank

Global Green Agenda in the Eurasian Region.

Eurasian Region in the Global Green Agenda

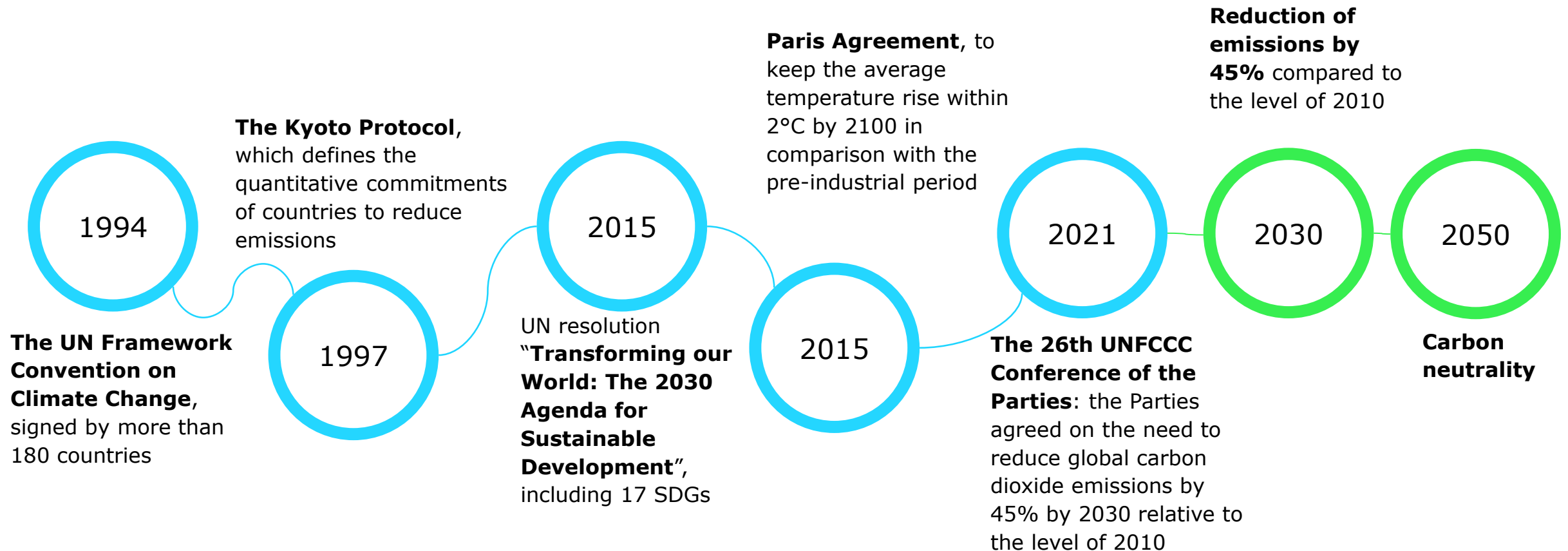
Research Department (Centre for Integration Studies)

Directorate of Sustainability

Almaty, May 11, 2023

Global Green Agenda: risks and opportunities for the Eurasian region

Global climate agenda calls for an accelerated transition to a low-carbon economy



Climate change and related socio-economic transformation pose risks for the countries of the Eurasian region

Physical Risks

hazardous natural phenomena, extreme meteorological, hydrological, and climate events

- Central Asia is **particularly vulnerable** to adverse climate change consequences, including the shortage of water resources, food security risks, and increased frequency of extreme weather events.
- Limited availability of water **affects** the region's **agricultural sector**, and increases the risk of conflicts over the access to water resources.
- According to certain estimates, by 2050, the volume of water in the basins of the Syr Darya and the Amu Darya, two of the most important water sources in Central Asia, may decrease by **10–15%**.
- By 2030, spring wheat production in seven regions of Kazakhstan is expected to decrease by **13–37%**, with direct economic **losses in the sector amounting to ₸456.93 billion** in 2019 prices (about \$1.2 billion).

Transition Period Risks

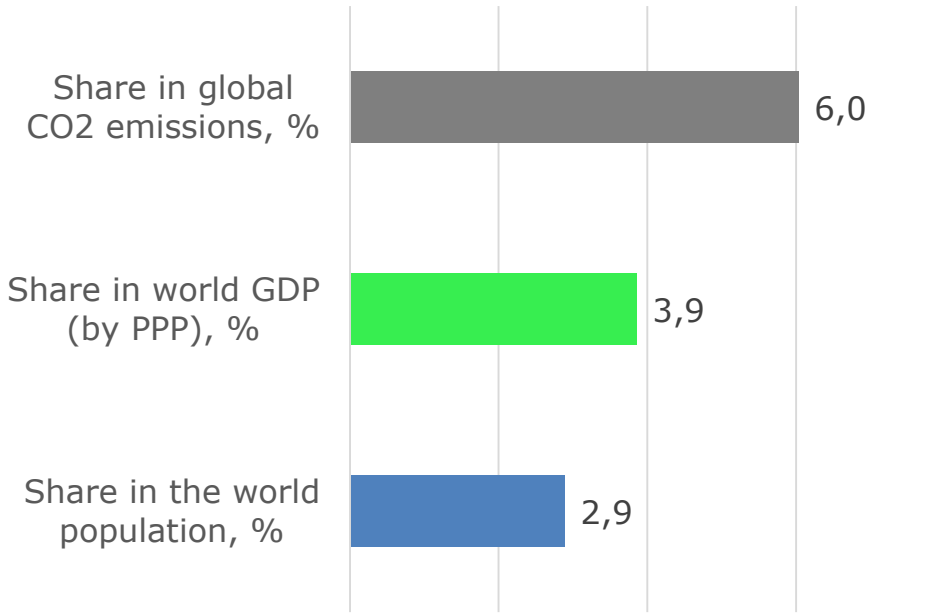
related to regulatory, economic, and technological measures taken to complete the transition to low carbon economy

- The gradual abandonment of fossil fuels (in particular, the use of coal for power generation) and the increasing profitability of RES generation reduce the **demand for conventional energy resources**, while hydrocarbon exporters find that their sales markets are declining.
- If the current energy policy continues, the global **demand for natural gas will increase by only 5%** in 2021–2030, while 75% of new global investment in the energy sector will be associated with green energy.
- Under the baseline scenario, **additional costs** incurred by Russian companies due to the imposition of the EU CBT may be as high as **\$14.7 billion**, of which steel exporters will pay \$6 billion, and aluminium exporters \$5.6 billion.
- After the imposition of the EU CBT in 2026, Kazakhstan exporters may be losing **up to \$250 million in revenues per year**.

The Place of the Eurasian Region in the Global Green Agenda

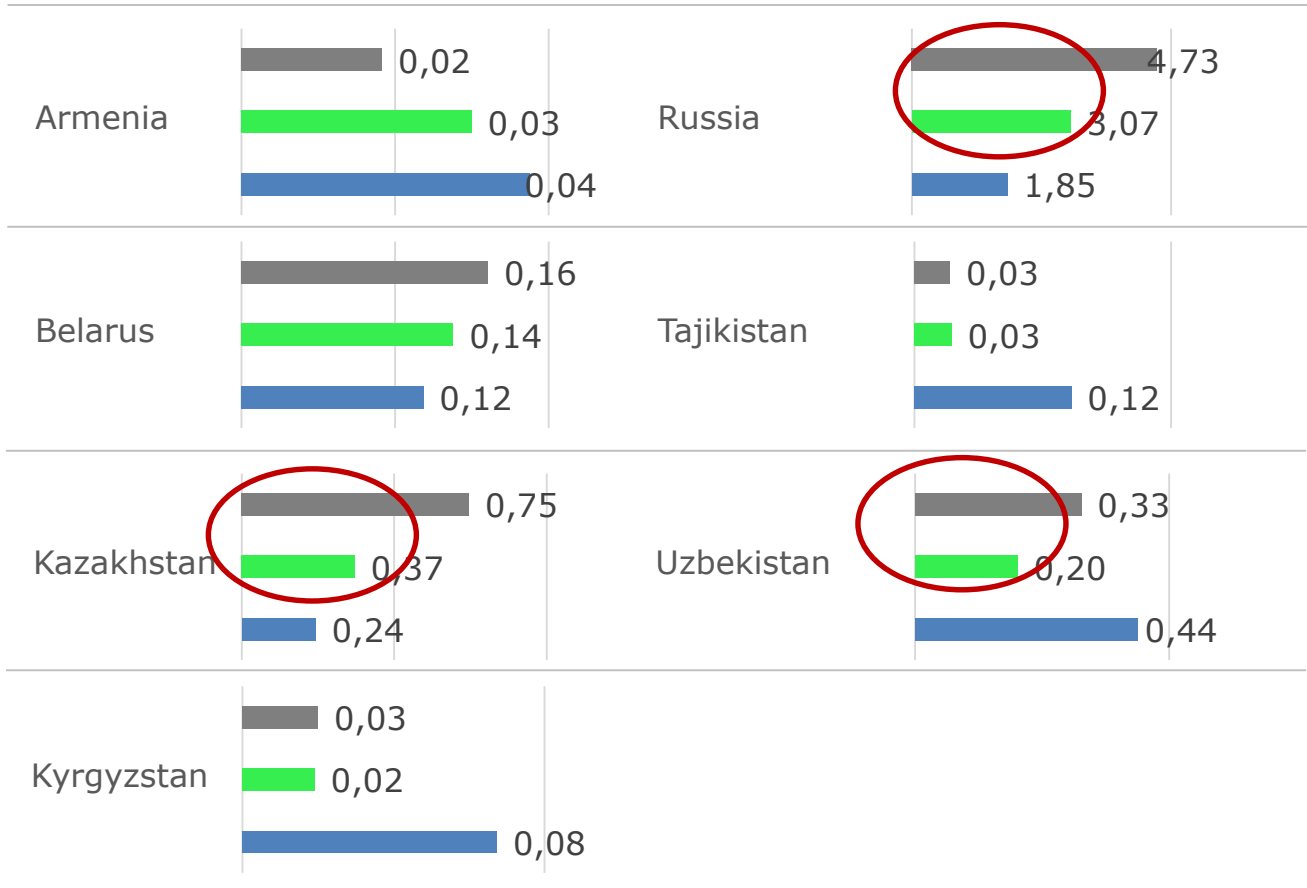
The volume of carbon dioxide emissions from the Eurasian region significantly exceeds its weight in the global economy

The region as a whole

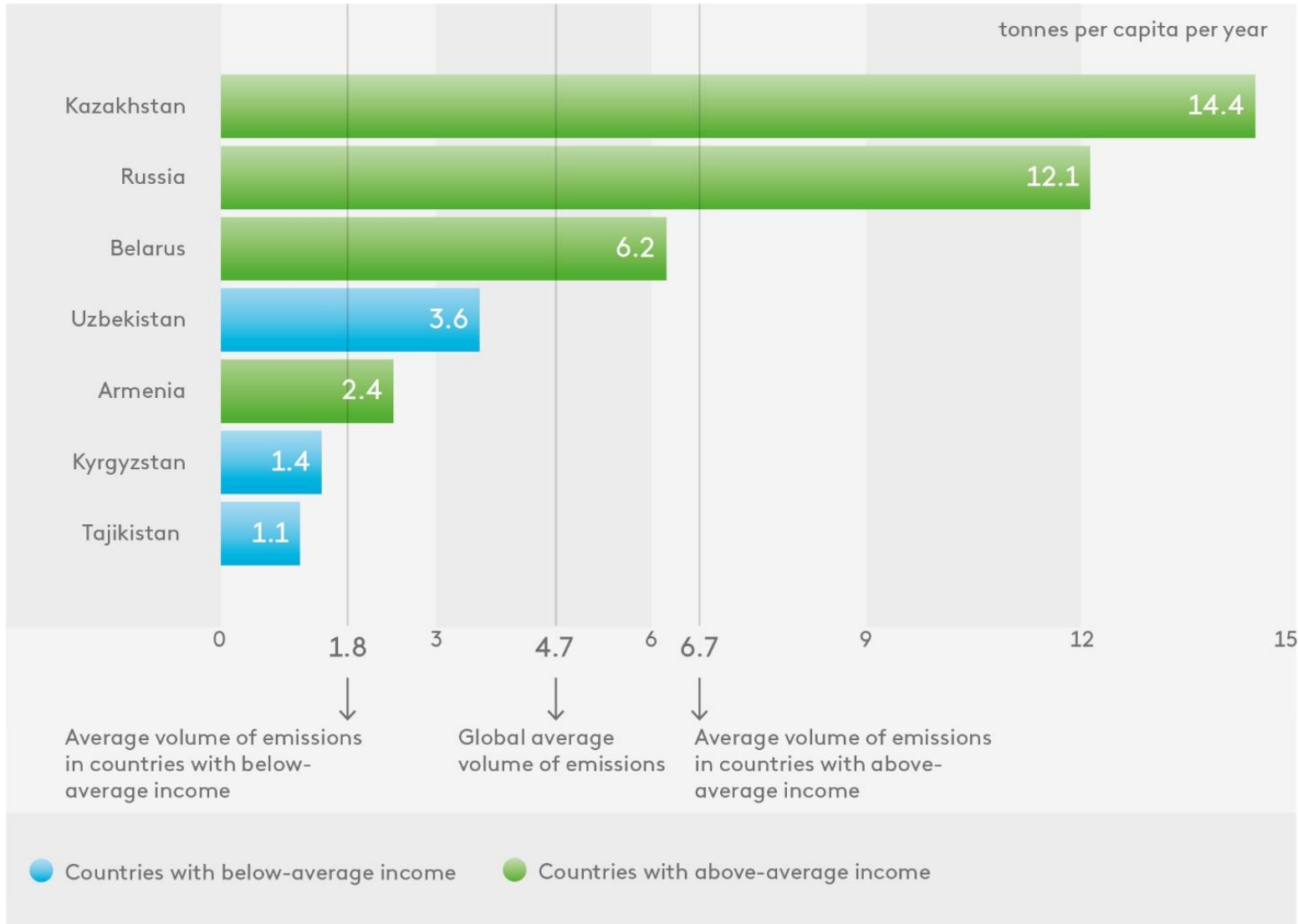


Note: according to data for 2021
 Source: IMF, World Bank, Global Carbon Project, calculations of EDB analysts

The picture differs in some countries



CO₂ emissions per capita in the region on average exceed the global average emissions



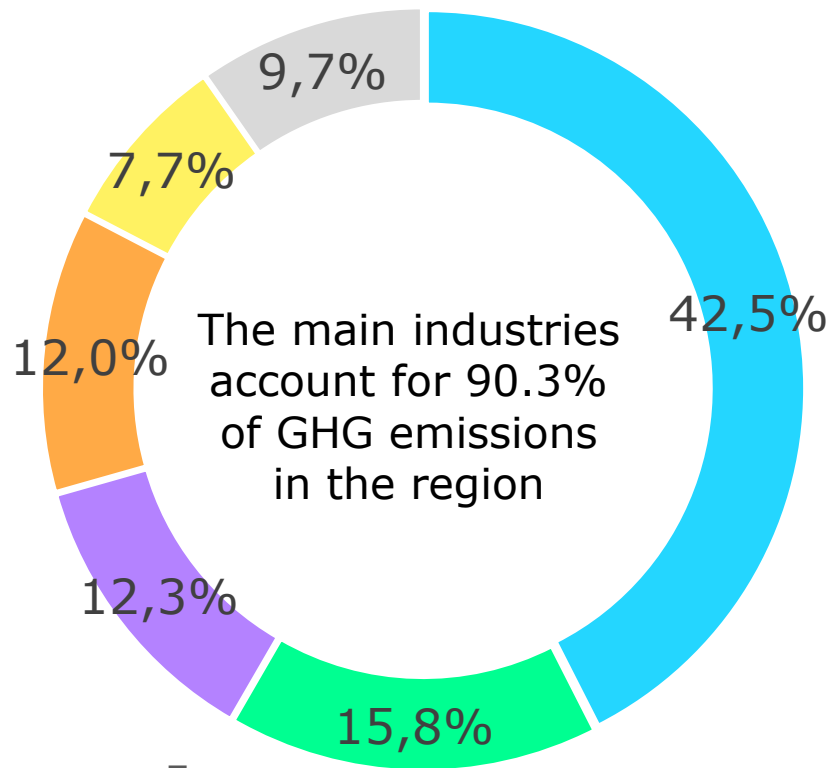
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the population-weighted average amount of CO₂ emissions in the region (tons per person).

- **Kazakhstan and Russia** have the highest carbon dioxide emissions per capita, both in comparison with other countries in the region and with global averages.
- **In Kazakhstan**, this is explained by the predominance of coal-fired power; **in Russia**, by the relatively high energy intensity of the economy (1.6 times higher than the global average) and emissions generated in the oil and gas sector.
- The low level of emissions per capita in **Kyrgyzstan** and **Tajikistan** is associated with a large share of hydroelectric power plants in the energy sector.

Source: Global Carbon Project, 2021, calculations of EDB analysts.

The pain points of most countries in the region are similar



- Energy
- Industry
- Transport
- Building maintenance
- Agriculture
- Other sectors*

Note: * Includes absorbing capacity of forests.
Source: Climate Watch (2019), calculations of EDB analysts.

- The **energy** sector of the countries of the region, as well as in the world, forms the bulk of greenhouse gas (GHG) emissions.
- **Industrial** emissions are most significant for Tajikistan and Russia.
- **Fugitive emissions** associated with the extraction, transportation and processing of oil and gas make up a large volume in Russia.
- Emissions in the **transport** sector are most significant for Armenia and Belarus, in the **housing** sector – for Kyrgyzstan and Kazakhstan in connection with coal-fired electricity generation.
- Emissions from **agriculture** predominate in Kyrgyzstan and Tajikistan.

	Armenia	Belarus	Kazakhstan	Kyrgyzstan	Russia	Tajikistan	Turkmenistan
Energy	13,3%	48,6%	42,5%	16,2%	44,1%	10,6%	30,1%
Industry & construction	9,3%	11,6%	12,1%	13,3%	17,0%	24,3%	10,7%
Transport	21,0%	18,4%	6,2%	8,8%	13,3%	7,9%	8,4%
Building maintenance	14,4%	7,3%	16,3%	37,5%	11,3%	6,5%	14,3%
Agriculture	17,9%	30,7%	10,3%	40,4%	4,9%	37,3%	19,7%

National and Regional Regulatory Approaches to the Green Transformation

All countries of the Eurasian region have set voluntary climate commitments

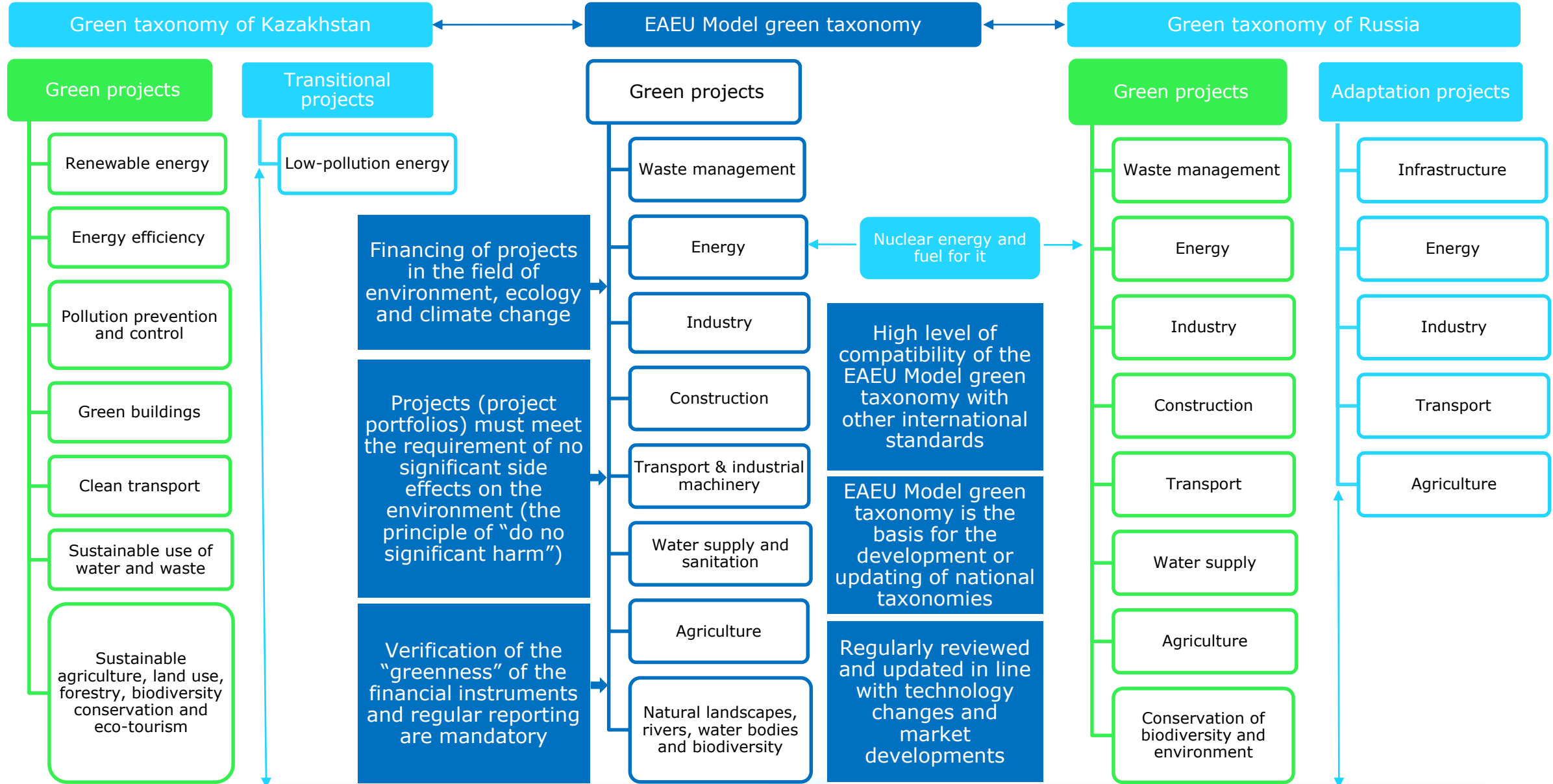
Country	GHG emissions target by 2030 compared to 1990	GHG emissions in 2020 compared to 1990*	Carbon neutrality target
Armenia	Decrease by 40%	Decrease by 61,5% (in 2019)	2050
Belarus	Decrease by 28%-35%	Decrease by 39%	-
Kazakhstan	Decrease by 15% (by 25% in case of international support)	Decrease by 11,1%	2060
Kyrgyzstan	Decrease by 15.97% (by 43.62% in case of international support)	Decrease by 40.4% (as of 2019)	2050
Russia	Decrease by 30%	Decrease by 35.1%	2060
Tajikistan	Decrease by 30-40% (by 40-50% in case of international financial and technical assistance)	-	-
Uzbekistan	Decrease by 35% (*to the level of 2010)	Growth by 6.7% for the period of 1990-2017	2050 but only for electricity production

Estimates on the cost of achieving carbon neutrality:

- Kazakhstan (2060) – \$666.5 billion
- Russia (2060) – \$6.5 trillion
- Kyrgyzstan (2050) – \$10 billion

Sources: the Register of the UNFCCC, the World Bank, Sberbank, the EEC, calculations of EDB analysts (* taking into account LULUCF)

Green taxonomies of Kazakhstan, Russia and the EAEU have much in common



Green solutions in various industries have both common approaches and specific features

Energy



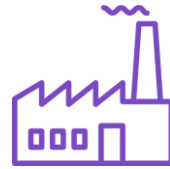
- Development of wind, solar and hydroelectric power plants
- Hydrogen production
- Realization of the nuclear power potential
- Projects of the water and energy complex
- Phasing out coal

Transport



- Development of urban public and railway transport
- Electrification and alternative fuels
- Low-carbon individual mobility
- Growth in the use of inland waterway transport
- Implementation of digital tools

Industry



- Improving energy efficiency
- Introduction of carbon capture, use and storage technologies
- Replacing fossil fuels with low-carbon energy sources
- Electrification
- Industrial symbiosis

Urban environment



- Construction of green buildings
- Efficient lighting and water supply systems
- Greening of the urban environment
- Measures to adapt to climate change (e.g. flood protection)

Agriculture



- Rational use of mineral fertilizers
- Modernization of irrigation infrastructure and wastewater disposal
- Transition to organic agriculture and precision farming
- Restoration of soil fertility

Sectoral specifics of green transformation. **Transport**

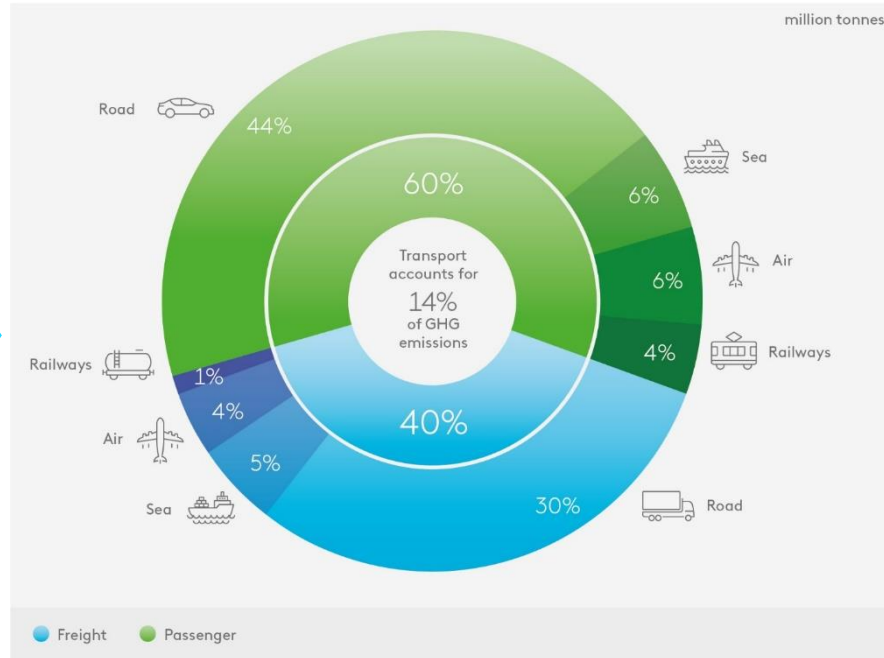
The contribution of transport to GHG emissions is 14%

74% of CO2 emissions come from road transport, primarily personal cars

60% of emissions from the passenger transport sector

40% from the freight transport sector

Structure and projections of GHG emissions by type of transport sectors



Source: SLOCAT, 2018








Solutions for the decarbonization of the sector (EAEU Model taxonomy)

- Production of road and rail vehicles powered by environmentally friendly energy sources, construction and modernization of low-carbon infrastructure for public transport
- Implementation of projects for the production of batteries and their components for transport, hybrid power supply systems

Project case 1: The Eurasian transport framework is a priority for the development of railway transport, the development of international transport corridors and routes, as well as connections between them

Project case 2: EAEU cooperation project "Eurasian Electric Bus"; projects to replace buses with electric buses in the agglomerations of Belarus, Kazakhstan, Kyrgyzstan and Russia; measures for the development of electric transport

Sectoral specifics of green transformation. **Industry**

State	Business	National Financial Institutions and MDBs
 <p>Policy development and implementation:</p> <ul style="list-style-type: none"> • Deployment of the closed materials consumption cycle • Deployment of zero-emissions industrial processes, minimisation of fugitive emissions • Support of innovation and R&D activities • Promotion of low-carbon products • Transition to rational consumption 	 <p>Deployment of zero-emission technologies</p>	 <p>Investment in low-carbon power engineering and industrial production technologies</p>
	 <p>Design and manufacture of products with minimal carbon footprint and extended service life</p>	 <p>Using the green finance instruments</p>
	 <p>Creation of closed-cycle production and distribution chains</p>	 <p>Climate risk & low-carbon transformation dialogue with the business community</p>

Solutions for the decarbonization of the industrial sector (EAEU Model taxonomy)

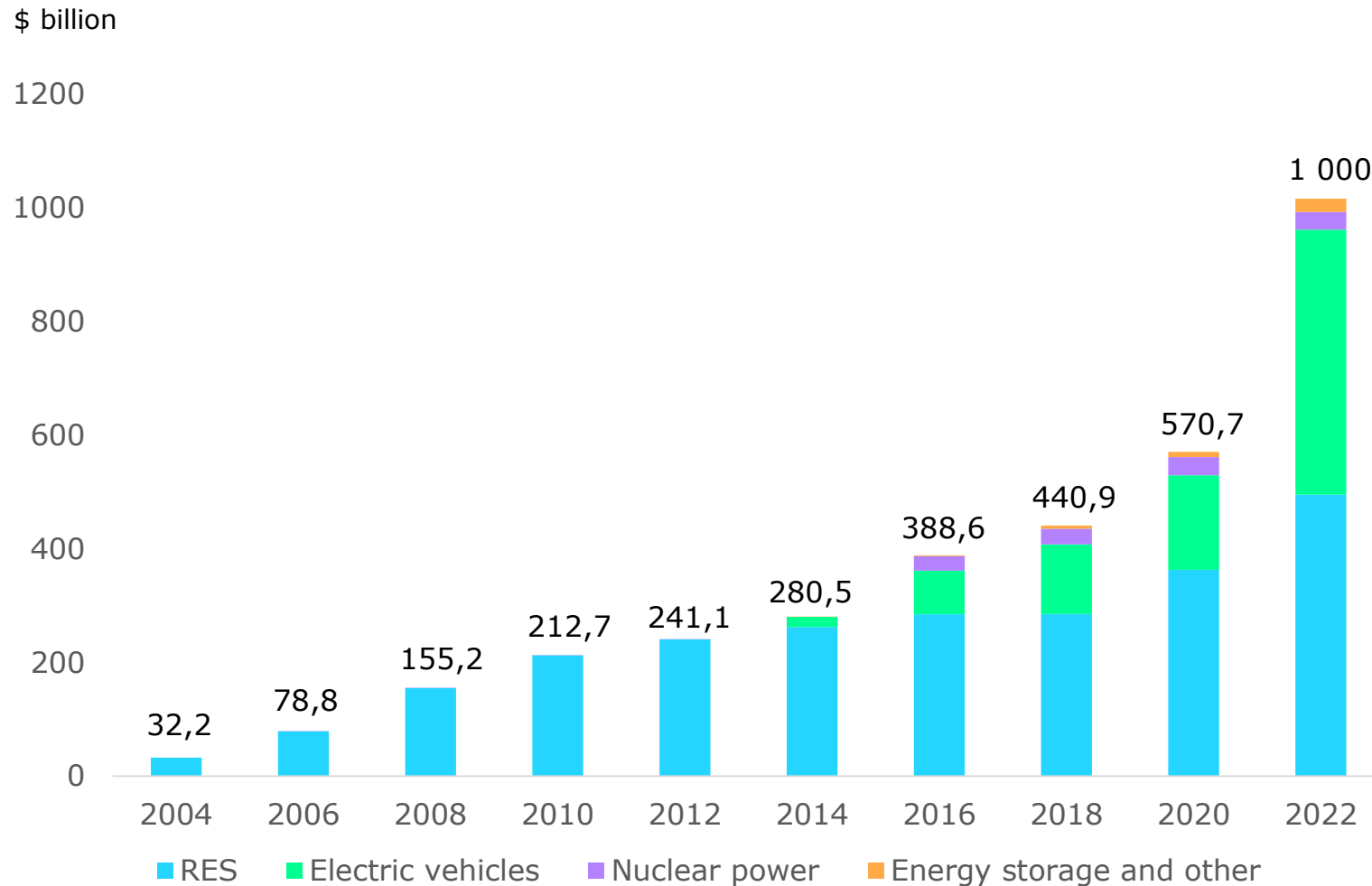
- Waste paper processing by pulp and paper enterprises, etc.

Greenness criteria for industry (Russian taxonomy of green and sustainable projects)

- Substitution of 10% or more of natural raw materials with various industry waste
- Accordance to the best available technological solutions criteria of resource and energy efficiency
- Application of greenhouse gas capture and storage technologies, inert anode aluminium production technologies, etc.

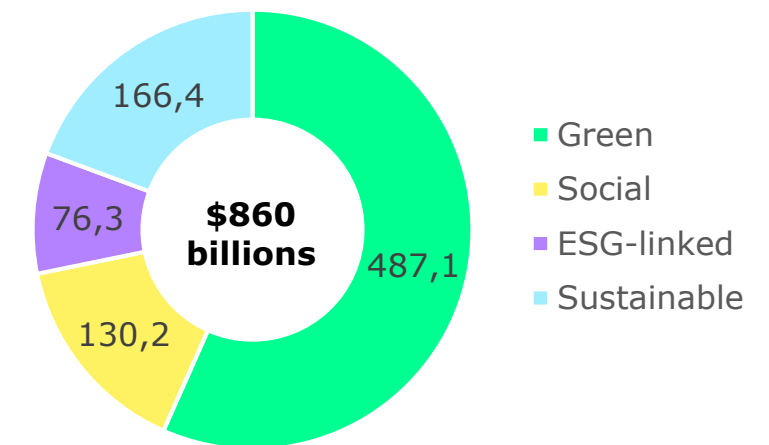
ESG Financing in the World and in the Eurasian Region

Investment in the global energy transition in 2022 equaled the annual costs of fossil fuel production for the first time



Source: Bloomberg, 2023

- To reach the carbon neutrality trajectory, low-carbon investments must amount to **\$4.55 trillion** per year
- Although global ESG bond issuance felt for the first time in 2022, **green bonds** accounted for the smallest reduction



Source: Climate Bond Initiative, 2023

Multilateral development banks can encourage private sector investment in green projects, mitigating risks

Climate finance for MDBs in low- and middle-income countries, 2021 (million dollars)



More than **\$50.6 billion or 62%** has been provided for climate mitigation and adaptation

684



- Special Programme for Central Asia
- Financing for Sustainable Rural Development in Uzbekistan (\$200 million)
- Master Plan for the Development of Islamic Finance in Kazakhstan until 2025

2 746



- Focus on infrastructure and technological climate projects
- The share of climate finance in the total volume is 50% by 2025

3 371



- One of the world leaders in supporting green projects
- Contributes to carbon-neutral growth in Kazakhstan, Kyrgyzstan, Tajikistan
- The volume of the portfolio of green projects in the region is about 1 billion euros

4 764



- The share of climate finance in the total volume is 75% by 2030
- The volume of adaptation financing is \$ 34 billion by 2030
- The ASEAN Green Recovery Platform (\$655 million)

4 777



- Green Economy Financing Facility (GEFF) (>€4 billion), contributing to the reduction of 7 million tonnes of emissions per year
- The share of green financing in the total volume is 50% by 2025)
- Partnership with the Global Environment Facility (GEF) in the Eurasian region

27 989



- Water and Energy Program for Central Asia (\$2.5 billion in 2023 as a plan)
- Support from the International Fund for Saving the Aral Sea and the Regional Environmental Centre for Central Asia

The ESG finance market in the Eurasian region is relatively small, but it is rapidly evolving: total ESG bonds issuance has exceeded \$4.9 billion*

Armenia

- Two green bonds issued by Ameriabank in 2020 (€42 million) and 2022 (~\$14.4 million)
- No international or local ESG ratings
- National taxonomy under development

Kazakhstan

- Overall volume of ESG bonds issuance in 2022–2022 reached \$536, with the ADB and the EDB being the largest issuers
- Level of ESG maturity assessed by ACRA, Bureau Veritas, PwC, and RAEX
- National taxonomy for green projects
- National emissions trading scheme in place

Russia

- MOEX-based ESG bonds issuance in 2022–2022 amounted to about \$3.3 billion
- Sustainable finance market shaped by large players partially owned by the state
- Local ESG ratings market dominated by traditional credit rating agencies offering ESG solutions
- National taxonomy for green and adaptation projects

Kyrgyzstan

- Overall ESG bonds issuance amounted to \$330 thousand
- Bank of Asia issued the country's first gender bonds (~\$940 thousand)
- No international or local ESG ratings

Belarus

- Influence of ESG factors limited due to low interest among the stakeholders
- Government green bonds issued in 2022 (~\$70 million)
- ESG ratings assigned by local agency (BIK Ratings)
- Draft national taxonomy for green and adaptation projects

Tajikistan

- ESG finance represented only by grants from international development institutions
- No international or local ESG ratings

Uzbekistan

- Government SDG achievement bonds issued in 2021 (\$870 million)
- No international or local ESG ratings
- Green taxonomy development under discussion



Note: * Total Issuance of GSS Bonds in 2020–2022

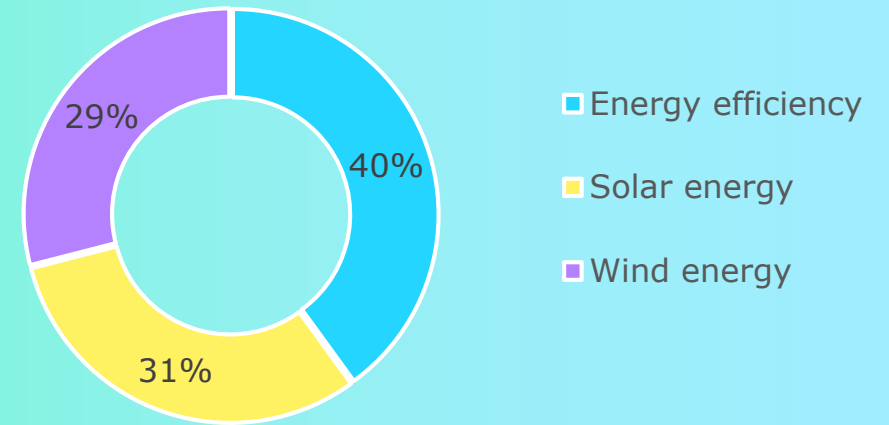
Sources: Kazakhstan Stock Exchange, Kyrgyz stock Exchange, Ministry of Finance of the Republic of Belarus, Moscow Exchange, RBC, Sberbank, EDB calculations

Perspective of Eurasian Green Agenda for Countries of the Region and the EDB's Input

Eurasian Development Bank aims to become the No. 1 ESG-oriented financial institution in Eurasian region

- Developed a Sustainable Development Strategy for the period 2022-2026
- Implements large-scale projects: the Eurasian Transport Framework, the Eurasian Commodity Distribution Network, the Water and Energy Complex of Central Asia and others
- Signed a number of memorandums of understanding and cooperation in the framework of achieving sustainable development goals (UNDP, International Bank for Economic Co-operation)
- Issued green bonds in the amount of KZT 20 billion
- Member of the Working Group of Multilateral Financial Institutions on Environmental and Social Standards
- Shareholder of the Green Finance Center Astana International Financial Centre (AIFC)

12 green projects with a total volume of more than \$500 million



Harnessing the potential and expanding climate finance opportunities in the region is one of the Bank's key objectives

The green trend creates opportunities and advantages for the countries of the Eurasian region

Promising areas for the countries of the region and the EAEU for the coordinated implementation of the green agenda	The current and future role of the EDB in the implementation of the green agenda in the Eurasian region
Development, implementation and development of national taxonomies, convergence of criteria for green projects	Contributing to the development, implementation and improvement of sustainable finance and ESG standards
Coordination of national measures for the green transformation of economic sectors	Financing of green projects and projects with significant contributions to sustainable development (including syndication with other MDBs)
Coordination of climate regulation mechanisms (monitoring, emission accounting, verification, creation of a single emissions trading market in the future)	Participation in the formation of new technology markets and markets for carbon units
Exchange of experience and knowledge	Becoming a centre of excellence for applied ESG research, climate and sustainable finance
Development of partnerships with international and national organizations	Strengthening cooperation with international organizations and business communities
Attracting green financing from MDBs to the region	Positioning as a key development institution in the region, including green projects; a link for green projects of other MDBs, the issuance of green bonds for the countries of the region



Eurasian Development Bank

Շնորհակալութիւնս ուշադրութեան համար.

Дзякуй за ўвагу!

Назар аударғандарыңызға рахмет!

Назар салганыңыздарга рахмат!

Благодарю за внимание!

Раҳмати калон!

Thank you!



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