



Eurasian
Development Bank

Global Green Agenda in the Eurasian Region.

Eurasian Region on the Global Green Agenda



KEY CONCLUSIONS

Global Green Agenda in the Eurasian Region. Eurasian Region on the Global Green Agenda

Green Transformation Is a Global Long-Term Trend

\$1.1tn Total investment in the global energy transition in 2022

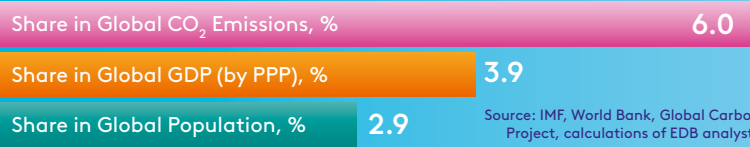
\$4-6tn Annual investment required to complete the transition to low-carbon global economy

Opportunities for the economies of the Eurasian region

- Modernise industrial production facilities, infrastructure sectors
- Raise ESG finance from development institutions
- Improve competitiveness of goods and services in external markets

The Eurasian Region Contributes More to CO₂ Emissions than to the Global Economy

Eurasian region, consolidated indicators, 2021 (EAEU, Tajikistan, Uzbekistan):



9.9 Average population-weighted volume of CO₂ emissions in the Eurasian region (globally: 4.7 tonnes/person)

from **\$10bn** to **\$6.5tn**
Estimated cost of achieving carbon neutrality per country in the region

Pain Points of the Eurasian Region and Decarbonisation Opportunities



Energy
Increase hydro, nuclear, solar generation



Transport
Develop railway transport and low-carbon urban mobility



Industry
Improve energy efficiency



Urban Environment
Construct green buildings and infrastructure facilities

Amount of ESG Finance Grows Both Globally and in the Eurasian Region

5% ESG finance in the global bond market

more than 50% Climate finance in MDB portfolios in 2025-2030

more than \$4.9bn Total issuance of ESG bonds in the Eurasian region

The Concept of the Eurasian Green Agenda

1. Unlocking the region's renewable energy and electrified transport potential
2. Establishing sectoral low-carbon development programmes
3. Creating a common carbon regulation incl. consistent methods used to monitor and register CO₂ emissions
4. Promoting government support incl. regulatory and tax exemptions for green bonds
5. Developing common regulatory standards for green finance
6. Coordinating the approaches within the international platforms

EDB Contribution to Sustainable Development of the Eurasian Region

- Collaborates with international organisations on climate issues
- Focuses on the expansion of green finance in the EDB member states
- Intends to include more green projects in its portfolio, raising their share from 12% to 25% by 2026
- Assesses investment projects for exposure to environmental and social risks
- Uses the EDB Technical Assistance Fund to reinforce and reaffirm sustainability components of the investment projects

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Climate change brings about devastating consequences for the entire globe and is irreversible, so the green economy focuses on reducing greenhouse gas emissions and achieving carbon neutrality by 2050. Countries will only transition to the green economy smoothly if they use green and climate finance for projects generating positive environmental impacts, mitigating, and adapting to climate change. New national and international policies and incentives will identify priority investment targets, build investor demand and trust, and encourage initiators to launch green projects. This will promote the green finance market. If countries work together to coordinate low-carbon development activities, they will avoid excessive regulatory costs and internal trade barriers, deepen regional co-operation following the green economy, and improve the competitiveness of regional producers. In this Report, the authors attempt to gain insight into the current state and future prospects of the green agenda in the Eurasian region. It focuses on climate change issues and international development institutions' role in promoting a low-carbon future.

Keywords: green economy, climate, SDGs, ESG, green finance, green projects, green taxonomy, international trade, co-operation, Eurasian region, EAEU, Central Asia, Greater Eurasian Partnership.

JEL: Q01, Q54, Q56, O13, F15, F18, R11.

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Nikolai Podguzov
Chairman of the
Management Board,
Eurasian Development Bank

Introductory Remarks by Nikolai Podguzov

The world is moving towards green, low-carbon development, and it is important for our countries, organisations, and people to understand how our participation or non-participation will affect that movement. The countries of the Eurasian region can only reach sustainable social and economic development if they intend to mitigate adverse environmental impacts, prevent climate change, and adapt to its consequences. That will determine the competitiveness of their economies and businesses, as well as the wealth and well-being of their populations.

This report, prepared by the EDB, reviews the current state of low-carbon development in Eurasia, and suggests ways to support further green transformation of the EAEU+ region. The report concludes that if countries, international development institutions, private businesses, and the civil society are serious about the green agenda, then they need to work together.

The issue of climate investments is on the top of the green agenda, particularly for low- and middle-income countries, small economies, and countries most vulnerable to climate change, i.e., the majority of Eurasian countries. For example, sustainable transport infrastructure projects and wind, solar, and geothermal energy projects in Central Asia are often financed with grants and soft loans, because such projects have long investment cycles and are very capital-intensive, while some countries lack financial resources. Multilateral development banks can arrange syndicated loans, provide technical assistance, share the expertise required for feasibility studies, and offer risk guarantees. That is why countries should consider involving these banks in such projects. In 2021, major MDBs provided more than \$81.7 billion of climate finance, of which \$50.6 billion, or 62%, was channelled to low- and middle-income countries.

Investments alone, however, are not enough; regulation is equally important. Green taxonomies and emissions quota trading schemes in some countries will encourage green finance and cut greenhouse gas emissions; adopting a model green project taxonomy for the entire EAEU region will also help. Eurasia's emerging sustainable finance market needs more incentives to support both investors and businesses, including capital relief and tax benefits.

The EDB is eager to lead by example and advise on competencies to drive a green finance syndication for sustainable development in the Eurasian region, while following its own ESG strategy. The EDB is co-financing hydro, solar, and wind power station projects. It has already invested more than \$700 million in green projects in the region, and intends to continue, focusing on green energy and energy efficiency. We hope for fruitful collaboration with the other international development institutions and the governments of the EDB member states. I have high expectations for such multilateral co-operation because it will resolve the region's long-standing environmental and climate problems, including those of the water and energy complex, industry, and the transport sector.



Summary

Global Green Agenda in the Eurasian Region

The green transformation is a long-term global trend shaping the social and economic development prospects for the whole world, including the countries of the Eurasian region (the EAEU member states, Tajikistan, and Uzbekistan). The green agenda intends to help adapt to climate change and decarbonise the economy by reducing greenhouse gas emissions and achieving carbon neutrality. **Neglecting climate challenges and initiatives comes at a price:** it drives up the cost of infrastructure adaptation projects, causes a decline in the international competitiveness of goods and services, and brings down the population's living standards. **The green agenda prioritises the technical and technological refurbishment** of Industry, Energy, and Transport. It improves energy efficiency, increases the competitiveness of goods and services, creates new sectors of the economy and new jobs.

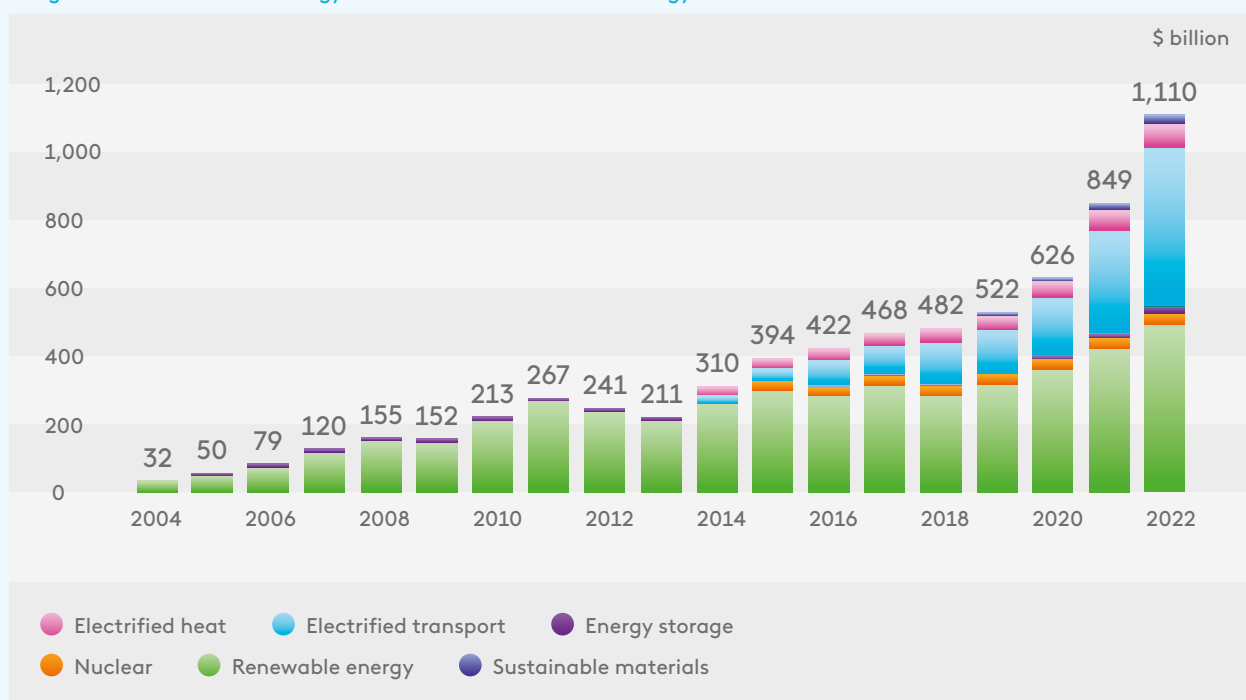
The green agenda is universal. The UN and other international organisations promote it as one of the key tools to ensure attainment of the Sustainable Development Goals (SDGs) and compliance with the Framework Convention on Climate Change, the Paris Agreement, and other initiatives. Individual countries set out their own green agendas, along with regions, cities, companies, banks, development institutions, business associations, and foundations. This modifies consumer preferences and behavioural patterns.

Ambitious climate goals will require global capital flows to be redirected from less critical items on the agenda. Projects with beneficial environmental and climatic impacts drive the transition to the green economy, spurred by green finance mechanisms.

Investments in the global energy transition exceeded \$1 trillion in 2022, and became, for the first time ever, equal to fossil fuel production costs. Renewable energy sources and electric transport attracted the largest investment capital (see [Figure A](#)).

Green projects, environmentally friendly technologies, and digital solutions to decarbonise and protect the environment are very capital-intensive. The 27th Conference of the Parties

↓ [Figure A. Investments in Energy Transition and Climate Technology](#)

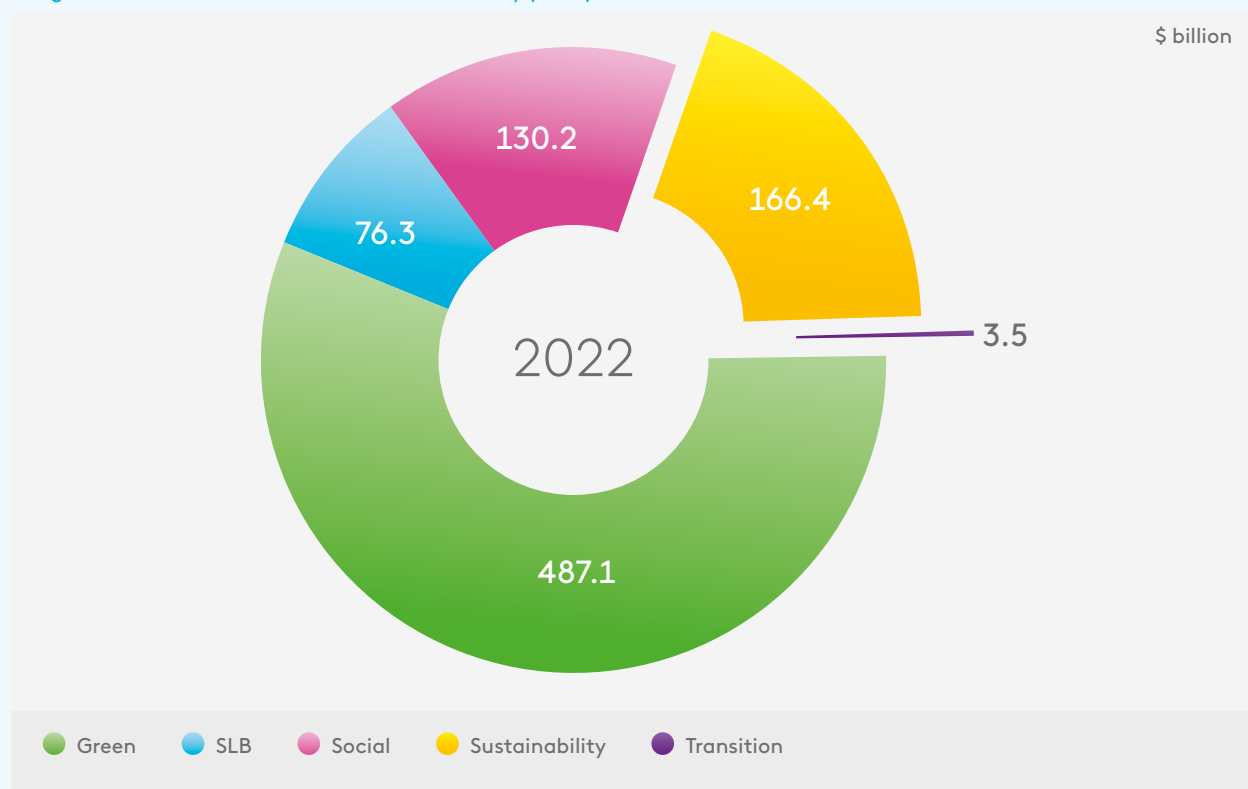


Source: BloombergNEF

of the UN Framework Convention on Climate Change resolved that it will take about \$4 trillion of investment in RES per year until 2030 to achieve net zero emissions by 2050, and that the global transition to a low-carbon economy will require a massive capital inflow of at least \$4–6 trillion per year. **Climate-related investment is particularly relevant for average- and below-average income countries.**

The ESG finance accounts for about 5% of the global bond market, with the green segment comprising more than half of all ESG bonds (see Figure B). Demand for green debt instruments exceeds supply. That is why some markets have adopted a “greenium” (“green discount”). **The ESG finance has excellent expansion prospects in the Eurasian region.**

↓ Figure B. ESG Bonds: Green, Social, Sustainability (GSS+)



Source: Climate Bonds Initiative.

Regions have had extensive experience with the green agenda. Examples include interstate mechanisms deployed in the EU and ASEAN member states to accelerate decarbonisation and facilitate green growth within those two macroregions over the medium and long term. The European Green Deal is the most sweeping regional green transformation programme. Adopted in 2019, it is intended to make Europe carbon neutral by 2025, in particular, to mobilise massive investments in new technologies, increase the cost of carbon dioxide emissions, provide additional support to vulnerable populations and carbon-intensive regions, and introduce regulations to prevent “emission leakages” (cross-border carbon tax).

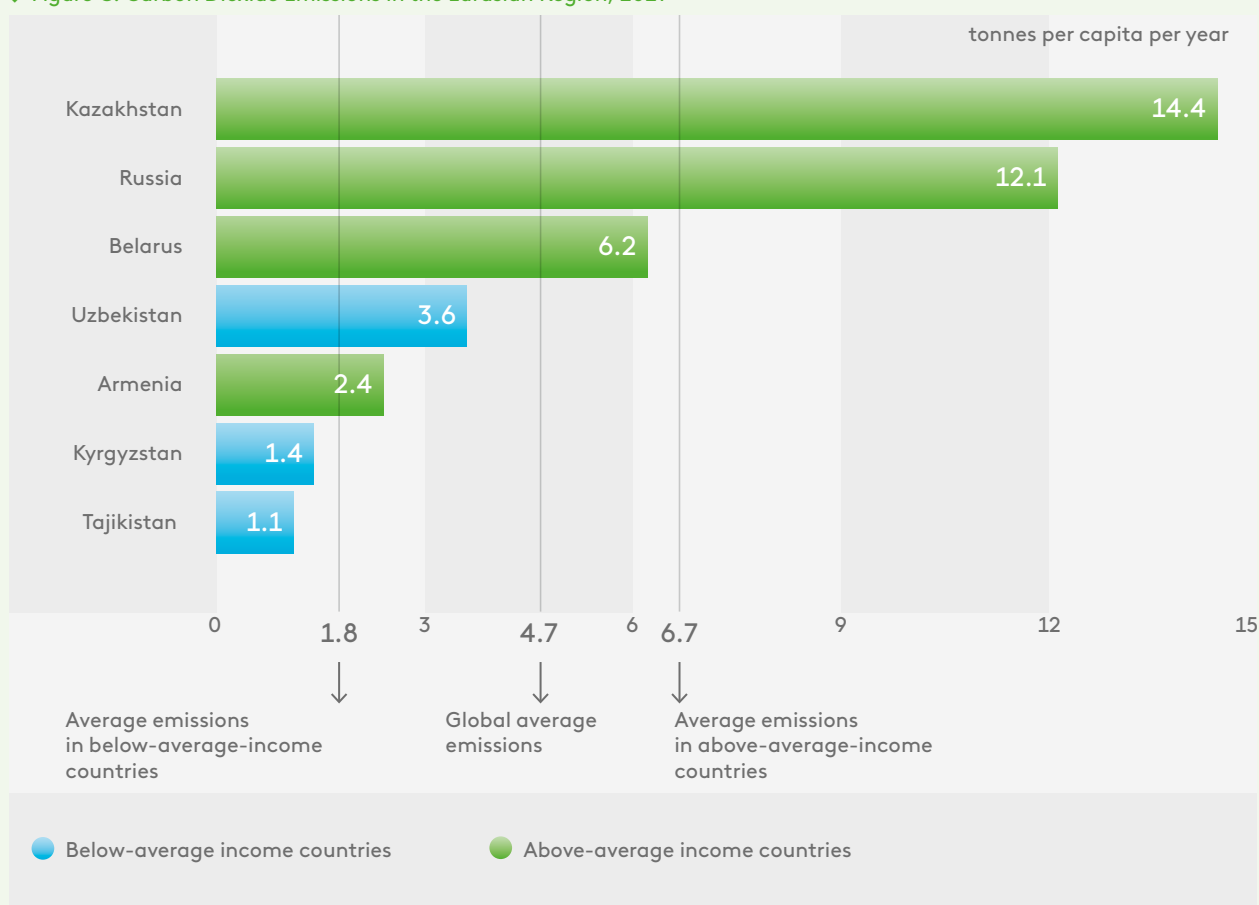
Multilateral development banks (MDBs) will become increasingly relevant for the green agenda. In 2021, MDBs provided more than \$81.7 billion of climate finance, of which \$50.6 billion or 62% was channelled to low- and middle-income countries for climate mitigation and adaptation.

Aside from financing, the MDBs also help develop climate projects and assess climate risks and opportunities. Green infrastructure projects produce significant environmental and social impacts but often generate minimal yields and expose private investors to higher risks. The MDBs can mitigate risks or offer guarantees for their reduction to encourage private investment in green projects. **Climate finance projects are expected to continue dominating MDB portfolios.** The ADB and the AIIB are going to allocate at least 75% and 50% of their total financing to climate-related projects by 2030 and 2025, respectively.

Eurasian Region in the Global Green Agenda

The Eurasian region contributes more to global carbon dioxide emissions than to the global economy. Its countries accounted for 6% of global emissions in 2021, while their combined shares of the world's GDP and population were 3.9% and 2.9%, respectively. The situation differs from country to country. Russia is a net emitter of carbon dioxide. Its share in total global emissions is 4.7% due to the largest energy and industrial production sectors in the region. It is followed by Kazakhstan with 0.7% of the global emissions due to massive coal power generation. Those countries also have high per capita carbon dioxide emissions per year (see Figure C): 14.4 tonnes in Kazakhstan and 12.1 tonnes in Russia. Kyrgyzstan and Tajikistan have the lowest per capita emissions (1.4 tonnes and 1.1 tonnes, respectively) due to their high share of hydro power generation. In 2021, the average population-weighted volume of carbon dioxide emissions was 9.9 tonnes per capita per year in the region. It is much higher than the global average (4.7 tonnes per capita per year).

↓ Figure C. Carbon Dioxide Emissions in the Eurasian Region, 2021

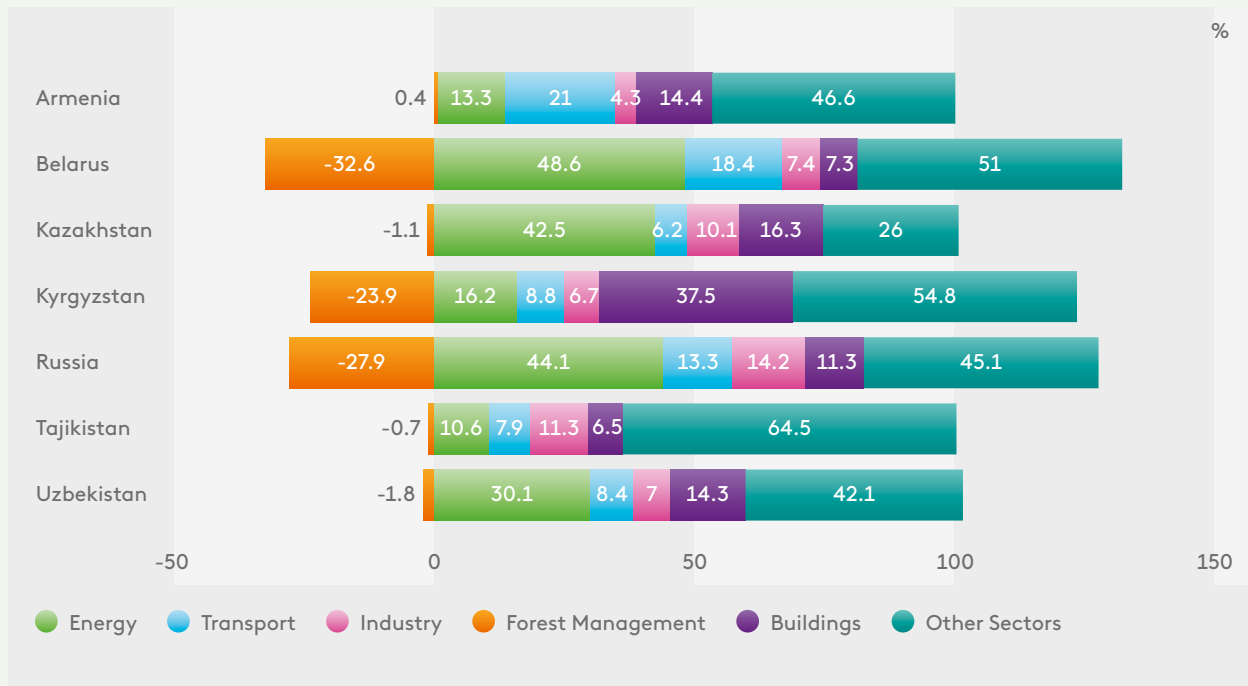


Sources: Global Carbon Project 2021, calculations of EDB analysts

Energy, Agriculture, Industry, Transport, and Buildings produce the most greenhouse gas emissions in the countries of the region. In 2019, electricity and heat generation accounted for 42.5% of total greenhouse gas emissions, and even higher in Belarus (48.6%) and Russia (44.1%) (see Figure D). Agriculture remains a major polluter in several countries of the region: 40.4% of total emissions in Kyrgyzstan, 37.3% in Tajikistan, and 30.7% in Belarus. Transport-related emissions are significant in Armenia (21%) and Belarus (18.4%). Kyrgyzstan and Kazakhstan largely produce emissions associated with operating buildings and consuming electricity generated by coal-fired power stations (37.5% and 16.3%, respectively). In Russia, fugitive emissions account for 28.2% of total emissions due to its extensive extractive industry.

Climate change and the related social and economic transformation expose the countries of the Eurasian region to certain risks (see Figure E). Physical risks are directly linked to climate change. They cause more frequent droughts, floods, landslides, soil erosion, and other hazardous natural phenomena, consequently damaging the economy. Transition risks are related

↓ Figure D. Breakdown of Greenhouse Gas Emissions



Sources: CAIT Climate Data Explorer, calculations of EDB analysts

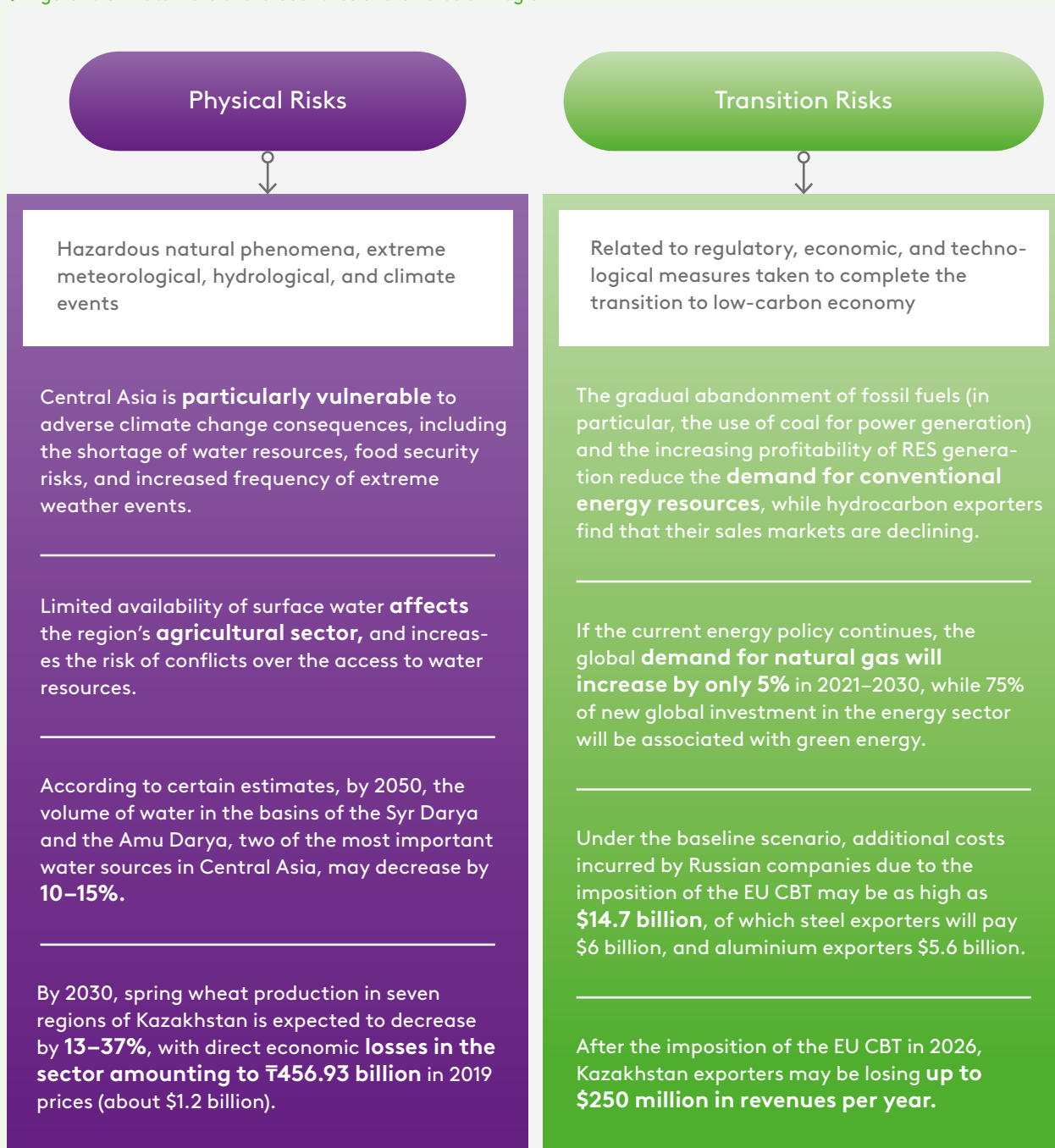
to regulatory changes in global markets. They encourage the transition to a low-carbon economy, but also raise additional costs for the businesses and consumers in the Eurasian countries due to low investment in the decarbonisation of their national economies. **Transition and physical climate risks go hand in hand over the long term.** Intensive economy decarbonisation means higher transition risks and lower potential physical risks. Conversely, a delayed transition to a low-carbon economy can magnify future physical risks, increase the frequency of natural disasters, melt permafrost rock, raise global sea levels, and cause other climate changes — even despite the reduction of greenhouse gas emissions.

The Eurasian countries adopted Emissions Reduction and Climate Change Adaptation Action Plans¹. The region plans to achieve carbon neutrality by 2060 in Kazakhstan (estimated cost: \$665 billion) and Russia (estimated cost: up to ₴480 trillion, or about \$6.5 trillion), and by 2050 in Kyrgyzstan (estimated cost: about \$10 billion). Armenia plans to commit to achieve carbon neutrality by 2050, while Uzbekistan intends to achieving carbon neutrality in the energy sector by 2050. **In addition, the EAEU member states are developing and introducing national low-carbon concepts, programmes, and strategies.** In 2021, Russia adopted the *Strategy for Social and Economic Development of the Russian Federation with Low Greenhouse Gas Emission Levels until 2050*. In 2023, Kazakhstan approved the *Strategy for the Attainment of Carbon Neutrality until 2060*.

The national carbon unit/credit markets expand and thus reduce greenhouse gas emissions. So far, Kazakhstan has the most advanced carbon unit exchange trading system in the region; it was launched in 2013, and carbon credits are traded there at an average price of \$1 per tonne. The quota trading system in Kazakhstan covers more than 220 industrial enterprises with total annual emissions of more than 20 kt CO₂e. Russia piloted a similar system in Sakhalin Region. Subject to international best practices, the EAEU member states **should work together to create national carbon unit markets and potentially merge them into a common regional market.** Likewise, they could develop a **pan-Eurasian system** for carbon units/credits and cross-border carbon taxation. A Eurasian **carbon tax** will incentivise the industry sector to decarbonise faster, especially because the trading partners will be tightening climate policies. This will reduce greenhouse gas emissions. A national or regional carbon tax cannot discriminate against any EAEU country, for example, by creating trade barriers, and it should be adequate enough to allow channelling additional resources to green projects.

¹ Nationally Defined Contributions (NDCs) adopted under the Paris Agreement on Climate Change.

↓ Figure E. Climate Risks of the Countries of the Eurasian Region

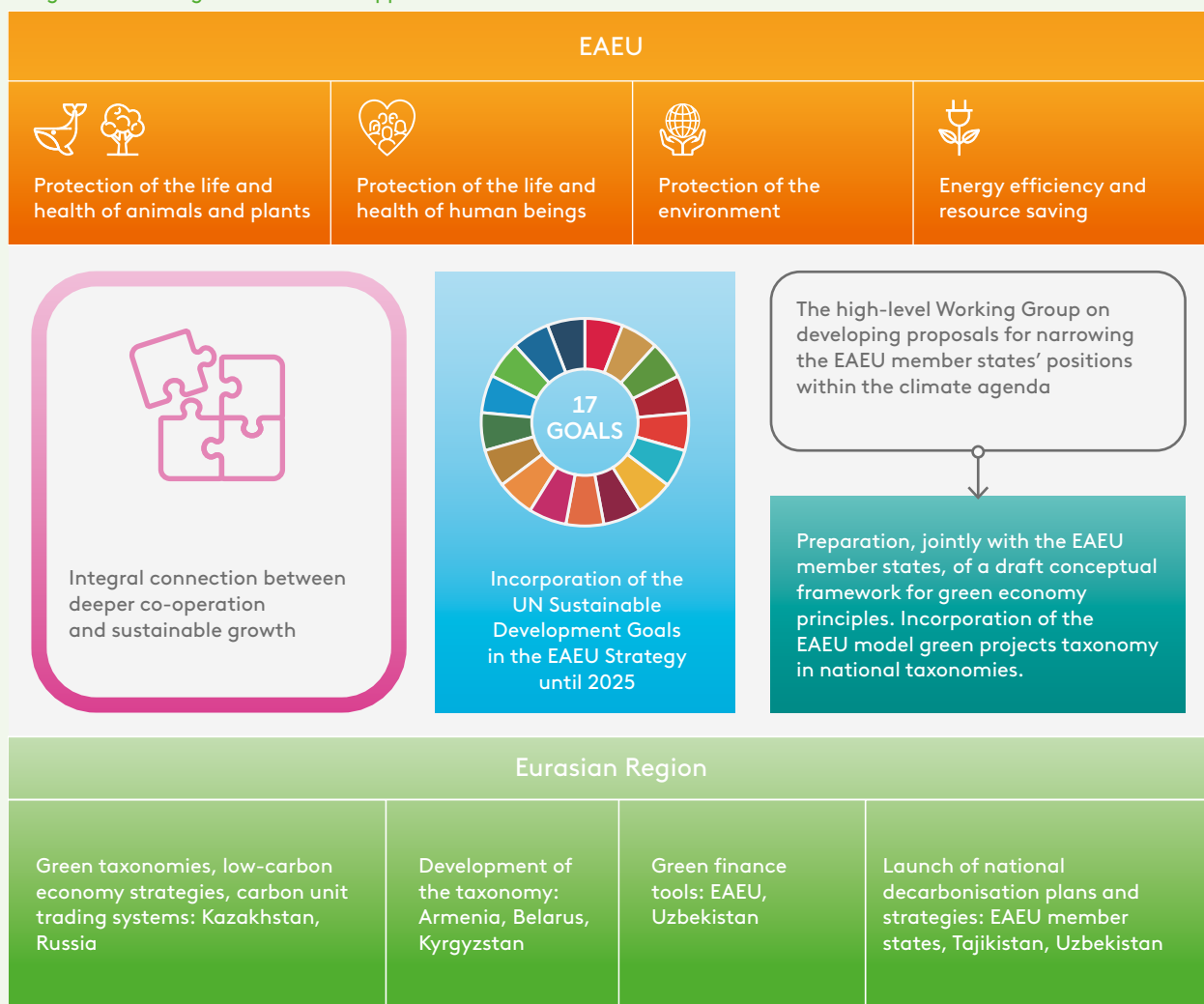


Source: EDB

The EAEU member states **have to tackle green taxonomies**, a very important challenge, and they are in the pipeline (see Figure F). Kazakhstan and Russia have already adopted such taxonomies. Kyrgyzstan and Belarus are devising a sustainable development project taxonomy and a green finance taxonomy, respectively. The **EAEU model taxonomy created in 2023** will make it considerably easier to design national green taxonomies. This will **accelerate and harmonise the green transformation within the Eurasian Economic Union**.

Countries may transition differently to the green economy, driven by the sectoral structure of emissions and investments in the green transformation. For example, Kyrgyzstan, Russia, and Tajikistan have abundant water and energy resources, so they might move towards hydropower engineering in their green transformation. Armenia and Uzbekistan can source their green transformation of the economy from solar power engineering. Electrification of railways, in particular, within the Eurasian Transport Network, will reduce the carbon footprint of the entire region, especially in container shipping, and may well advance green mobility.

↓ Figure F. Green Agenda Issues and Approaches in the EAEU



Source: EDB

Nuclear power engineering is a vital energy transition driver in the countries of the region.








This industry is included in the green project taxonomy in Russia, the EAEU model taxonomy, and has been globally recognised as green (for example, see the EU taxonomy) despite of all the related controversies. New nuclear power units are in the pipeline in Armenia and Belarus. Uzbekistan is getting ready to build its first nuclear power station.

Ambitious climate goals can only be achieved once coal is no longer used as a fuel. Coal generation still largely contributes to total greenhouse gas emissions, and accounts for up to 80% of total capacity in some countries of the region. Coal combustion is the main source of greenhouse gas emissions in Kazakhstan (65.4%). Countries also need to make sure that individual households use alternative sources of energy.

Decarbonisation of Energy and Transport is a priority for the countries of the region.

In their climate efforts, they are supposed to concentrate on RES, primarily hydropower generation, and energy-efficient technologies. Improvement of energy efficiency is key to reducing carbon intensity, and is part of the Industry, Agriculture, Residential Construction, etc. green strategy (see Figure G). In addition, the countries of the region are embracing electric transport and the development of related infrastructure. There are also plans to increase the electric vehicle pool to 100 thousand by 2030 in Armenia, and by 2025 in Belarus. Russia may reach 1.4 million domestic and foreign electric vehicles by 2030.

↓ Figure G. Green Agenda Issues and Approaches in the EAEU

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>

Source: EDB.

The ESG finance market in the Eurasian region is relatively small, but it is rapidly evolving: in 2022, ESG bonds issuance totalled over \$4.9 billion. For example, Ameriabank CJSC, an Armenian bank, sold two green bond issues for €42 million in 2020 and about \$14.4 million in 2022. In 2022, Belarus debuted the issue of sovereign green bonds for about \$70 million. Kazakhstan issued \$536 million worth of ESG bonds in 2020–2022. Kyrgyzstan estimates its ESG bonds issuance at \$330 thousand. Meanwhile, Russia issued ESG bonds totalling about \$3.3 billion at Moscow Exchange. In 2021, Uzbekistan issued \$870 million worth of government bonds to finance the SDGs.

The laws of the countries of the Eurasian region do not benefit or incentivise the issuers of ESG debt instruments or their investors. Regional market players will welcome certain support measures, for example, subsidised coupon payments on green bonds / subsidised interest payments on green loans, tax benefits for investors, reduced risk weights for green bondholders, lower reserve requirements.

The MDBs will have to coordinate their policies to attract investment capital to the region. Beside the Eurasian Development Bank (EDB), other major MDBs operate in the Eurasian region, including the World Bank, the European Bank for Reconstruction and Development, the Asian Development Bank, the Asian Infrastructure Investment Bank, the Islamic Development Bank, etc. In 2021, Central Asia countries received only 4% of the total climate finance provided to low- and middle-income countries.

To promote the regional green agenda, the EDB (see Box A) and other MDBs may help develop, introduce, and improve sustainable finance and ESG standards, include more sustainable development projects in their portfolios, expand the carbon unit market, and share best ESG research and sustainable finance practices.



Box A.

The EDB facilitates sustainable development of the Eurasian countries

- collaborates with the EEC, the UNDP, and other international organisations on climate issues;
- focuses on the expansion of green finance in its member states in line with its 2026 Strategy;
- intends to include more green projects in its portfolio, raising their share from 12% to 25% by 2026 (for example, by investing at least \$400 million in the Central Asia water and energy complex), and increases RES financing to \$1 billion by 2024;
- assesses investment projects for environmental and social risks, including Eurasian megaprojects, such as the Eurasian Transport Network, the Eurasian Distribution Network, etc.;
- uses the EDB Technical Assistance Fund to reinforce and reaffirm sustainable development elements in the Bank's investment projects.

The countries of the Eurasian region could share their views on climate-related issues at international climate regulation forums, but only if they work together to forecast climate risks, adapt, and apply international GHG assessment practices and standards. This will avoid excessive regulatory costs and internal trade barriers, deepen regional co-operation in accordance with the green economy principles, and improve the competitiveness of regional producers. The countries can collaborate accordingly to develop the concept of the **Eurasian Green Agenda**, an action programme within the EAEU and the Greater Eurasian Partnership.² It will cover the following work streams:

(1) make the most of the natural advantages that the Eurasian countries have in hydro, nuclear, and solar power generation, railway electrification, intensive afforestation, etc.; collaborate and co-operate accordingly to benefit in the long term;

(2) create a common carbon regulation system within the EAEU, i.e., make sure that the countries have consistent greenhouse gas emissions monitoring and recording methodologies, national taxonomies, green project methodologies and related technical regulations; establish a common carbon unit registration and circulation system; impose an internal carbon tax, and further create a common greenhouse gas emissions trading scheme;

(3) provide government support and encourage the green transformation of individual enterprises in various economic sectors; attract investments in green projects, including through MDB-financed projects;

(4) develop industry-specific Eurasian low-carbon development programmes (Energy, Transport, Industry, Agriculture, Urban Development); make sure common markets for energy resources and transport services within the EAEU comply with climate commitments; expand industrial green technology co-operation, etc.;

(5) develop common regulatory standards in sustainable finance (GSS+), in particular, harmonise national regulatory frameworks and offer regulatory and tax incentives and interest rate (coupon rate) subsidies, thus stimulating investor appetite for green bonds, subject

² The Greater Eurasian Partnership is understood as a network of free trade and economic cooperation agreements between the EAEU and other countries/associations.

to MDB expertise, EU and ASEAN experience, the EAEU model taxonomy, and ESG national and international practices;

(6) coordinate the approaches of the countries within the international platforms and voluntary climate commitments.

The proposed **Eurasian Green Agenda framework action programme** could coordinate the realization of the green agenda, covering regions, countries, and the entire continent (through the Greater Eurasian Partnership). This would **promote the Eurasian region on the global green agenda.**

Introduction

The United Nations Environment Programme commonly reads that expansion of the green economy improves human well-being and social equity, while significantly reducing environmental risks (UNEP, 2011). The green economy is an inherent part of sustainable development.

The green economy effectively uses natural resources and reduces adverse impacts on the environment, preserves and builds up natural capital, in particular, prevents ecosystem and biodiversity loss, promotes environmentally responsible production and consumption, and boosts income and employment rates, while drastically reducing greenhouse gas emissions. Climate change brings about devastating consequences for the entire globe and is irreversible, so the green economy focuses on reducing greenhouse gas emissions and achieving carbon neutrality by the middle of the century.

Countries will only transition to the green economy smoothly if they use green and climate finance for projects generating positive environmental impacts, mitigating, and adapting to climate change. New national and international policies and incentives will prioritise investment targets, build investor trust, and encourage green project development. This will promote the green finance market. The Green Bond Principles pursue the same goal. These are the universal world standard for green finance issuers, drafted by the International Capital Market Association (ICMA). The Principles list broad categories of eligibility for Green Projects (see [Attachment 3](#)), defined as projects that foster a net-zero emissions economy and protect the environment (ICMA, 2021). Other globally used policy documents include the Climate Bonds Standard and the Climate Bonds Taxonomy developed by the Climate Bonds Initiative (CBI, 2022). In turn, national green project taxonomies help achieve national environment and climate goals subject to country-specific circumstances and priorities.

The ESG principles bring together environmental and social responsibility and superior corporate governance. That is why a lot of companies are introducing them across the board. Not only does this have a positive environmental or social impact, but also raises beneficial external funding, in particular, from international development banks.

It is equally important to consistently embed those principles in the interstate programmes of integration associations and bolster the green transformation effect across the world's macroregions. The global climate agenda creates risks, but it also opens up new opportunities for the member states of the Eurasian Economic Union (EAEU) and its partner countries (Tajikistan and Uzbekistan); in this Report, we combine them into what we call the "Eurasian region". This requires countries to align regional and global green agenda actions to avoid regulatory costs and internal trade barriers for climate-related reasons, deepen economic integration in line with the green economy principles, and together achieve equitable global environmental and climatic outcomes. The EAEU model taxonomy approved by the Eurasian Economic Commission in January 2023 can make sure that the countries of the region are all on the same page with the green projects and encourage them to pursue a sound climate policy within the Union. It will take into account relevant national features and invite mutually beneficial projects and exchange of best practices at the same time. The EAEU member states can share their common climate issue-related interests at the forums offered by the WTO, the Secretariat of the UN Framework Convention on Climate Change (UNFCCC), the International Civil Aviation Organisation (ICAO), etc.

The Eurasian Development Bank (EDB) has been focusing on green economy issues since its first analytical publications. In fact, the Bank's industry series has covered them from its very start, for example, the impact of climate change on Central Asia water resources

(Ibatullin, Yasinskiy, Mironenkov, 2009), the improvement of energy efficiency in the CIS industry (EDB, EY, 2014), the environmental dimension of the EDB investment policy (Yasinskiy, Mironenkov, 2009), the co-operation in the nuclear energy complex (Absametova, Vinokurov, 2011), etc. Some EDB publications are dedicated to the development of green technologies in Eurasia (Vinokurov, 2021). We intend to expand green analytics together with the other international development banks in Eurasia.

In this Report, the authors attempt to gain insight into the current state and future prospects of the green agenda in the Eurasian region. It focuses on climate change issues and international development institutions' role in promoting a low-carbon future. The first chapter of the Report reviews the global green agenda and its influence on the countries in Eurasia. The second chapter considers the current state, trends, and prospects of the green transformation of the countries comprising the Eurasian region, and the global green agenda risks. The third chapter is dedicated to the national green transition action programmes, and the efforts taken in that area by the EAEU and other regional organisations. In the closing section, we present our conclusions and suggestions on ways to promote the green agenda in the Eurasian region.

1. RELEVANCE OF THE GLOBAL GREEN AGENDA FOR THE EURASIAN REGION

1.1 Global Context of the Green Transformation

The green economy is intended to help people use natural resources more effectively, with less negative environmental impact, and reduce waste. It opens up new opportunities for cooperation of developing countries and facilitates their access to less expensive technologies for the production of energy, food, and housing. The green economy also seeks to satisfy countries' vital needs without continued degradation of the environment. The concept recognises that each country has the right to select an approach that it deems appropriate subject to its national sustainable development plans, strategies, and priorities.

In 2015, the United Nations General Assembly passed Resolution 70/1 Transforming Our World: the 2030 Agenda for Sustainable Development. It defined the Sustainable Development Goals, a set of 17 interlinked goals and 169 targets comprising a “plan to build a better and more sustainable future for all”.³ In 2015, the 21st UNFCCC Conference of the Parties adopted the Paris Agreement, and all acceding countries pledged to reduce their greenhouse gas emissions and work together to adapt to climate change, as well as gradually expand those activities in the future. The agreement looks to keep the increase in the global average temperature to well below 2°C above pre-industrial levels (mid-19th century), and limit the temperature increase to 1.5°C above pre-industrial levels to stabilise the climate (UNFCCC, 2015). The Paris Agreement was acceded by 195 countries and the EU. The parties made the Nationally Determined Contributions (NDCs) to formalise their commitments and subsequently publish regular updates on adaptation to climate change on the official UNFCCC website. The annual Conferences of the Parties (UNFCCC COPs) are the key platform to assess the progress of the global climate policy.

In this Report, the term “green agenda” means the entirety of the efforts exerted by the humanity to deal with all environment and climate challenges, as defined by the green economy concept, SDGs, and subsequent UN Resolutions. The Report focuses on climate and climate-related commitments, risks, and tools of the countries of the Eurasian region.

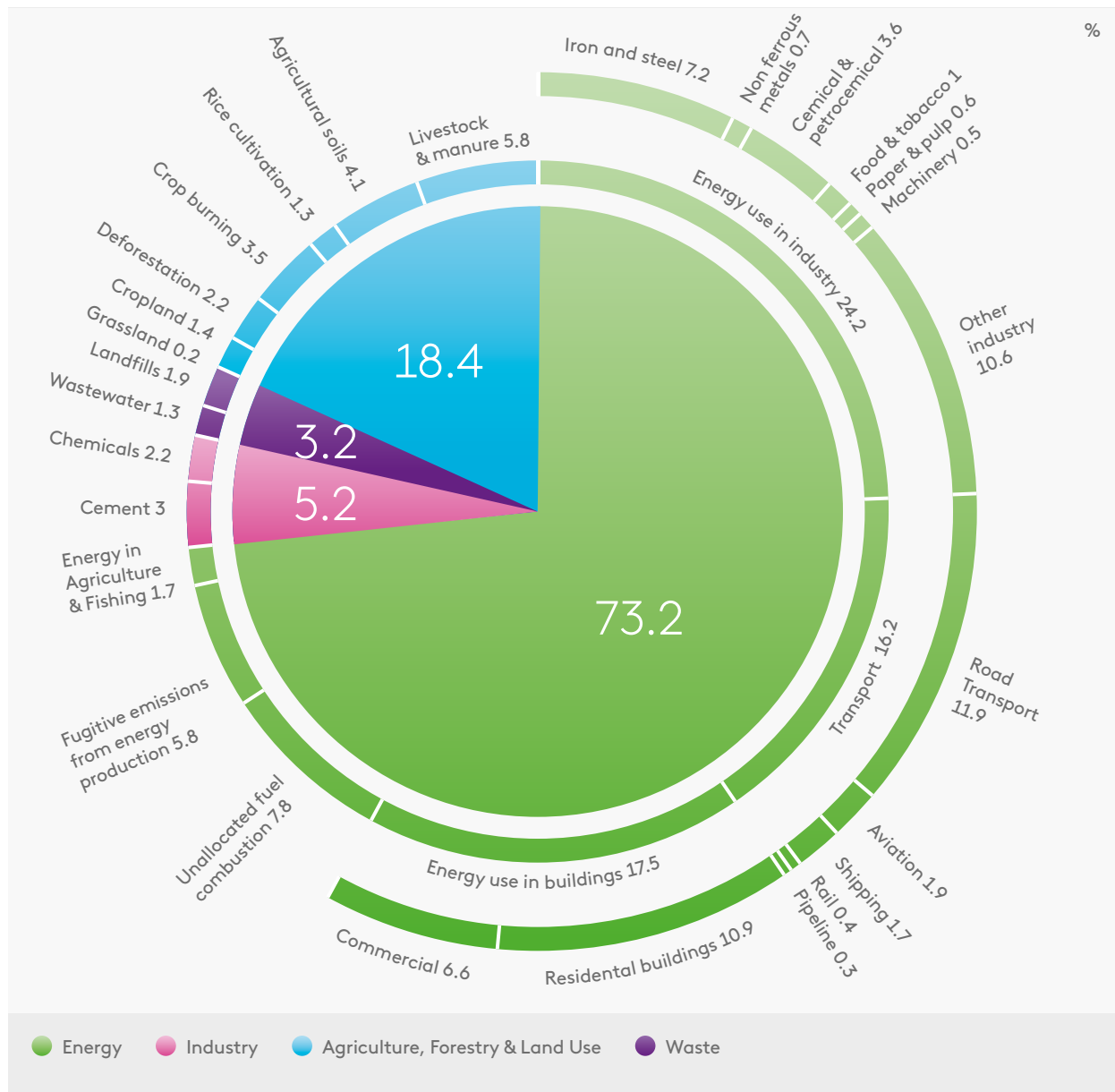
COP26 and COP27 show (see [Attachment 1](#)) that currently, the global climate policy calls for a switch from a gradual to accelerated, forced transition of all countries to a low-carbon economy by 2030, and then to a zero-carbon economy by 2050. In particular, the COP-27 final resolution states that RES will call for investments of about \$4 trillion per year until 2030 to enable net zero emissions by 2050, and maintains that the global transition to a low-carbon economy will require a massive capital inflow of at least \$4–6 trillion per year. It calls to adjust the mandates of multilateral development banks and international financial institutions to maximise investment in energy transition and climate change adaptation projects.

According to the UNDP, China, the US, India, the EU, Indonesia, Russia, and Brazil accounted for about 50% of global anthropogenic greenhouse gas emissions (UNEP, 2022) in 2020. China, India, the US, and Canada reported the highest increases in cumulative greenhouse gas emissions since 1990, while Russia, the EU, and the UK achieved the highest reductions.

³ United Nations. Climate Action. 17 Goals to Transform Our World. Available at: <https://www.un.org/en/climatechange/17-goals-to-transform-our-world>

The commitments made by the governments of all 195 Paris Agreement countries are not efficient enough. The national climate action plans will increase global greenhouse gas emissions by almost 11% by 2030, compared to 2010 levels, and they need to be cut by 45% to keep global warming below 1.5°C. Getting to net zero will require all governments (first and foremost the biggest emitters) to strengthen their NDCs.

↓ Figure 1. Breakdown of Greenhouse Gas Emissions in the World



Source: Our World In Data, Climate Watch, the World Resources Institute.

Combustion of fossil fuels accounts for 73% of all greenhouse gas emissions, particularly in the energy and transport sectors and during industrial production (see Figure 1).

Despite the substantial progress, the current international climate regulation paradigm is often criticised. For example, adaptation to climate change is very low on the countries' agenda. This means less funding: in 2021, only 35% of total climate finance provided by MDBs to low- and middle-income countries went to climate change adaptation (EIB, 2022). Many of those countries are particularly vulnerable to climate change, and are already experiencing its adverse consequences. →

Studies show that in 1992–2013, the global economy lost from \$5 billion to \$29 billion due to the negative impact of climate change. Low-income tropical countries had their GDP per capita per year reduced by as much as 6.7%, sustaining large losses, compared to only 1.5% in high-income countries (Naddaf, 2022). The developing countries maintain that the developed countries should bear the brunt of emission reduction because their development has not been curbed by any climate-related restrictions and they have been responsible for the majority of total emissions since 1850. That said, it is China and India that are ranked as the most polluting countries.

The Paris Agreement called on all countries to set emissions reduction targets. It, however, did not include steps to reach those targets or any liability for failure. Financial incentives to boost national decarbonisation (emission trading schemes or carbon tax) have not always been hailed by the stakeholders, because they inevitably raise prices, put heavier burden on the poor, run counter to the vital interests of the business community, and increase related political exposures (Islam, 2022). To limit global warming, carbon prices must rise from a global average of \$6 per tonne of CO₂ today to \$75 by 2030 (Black, Parry, Zhunussova, 2022).

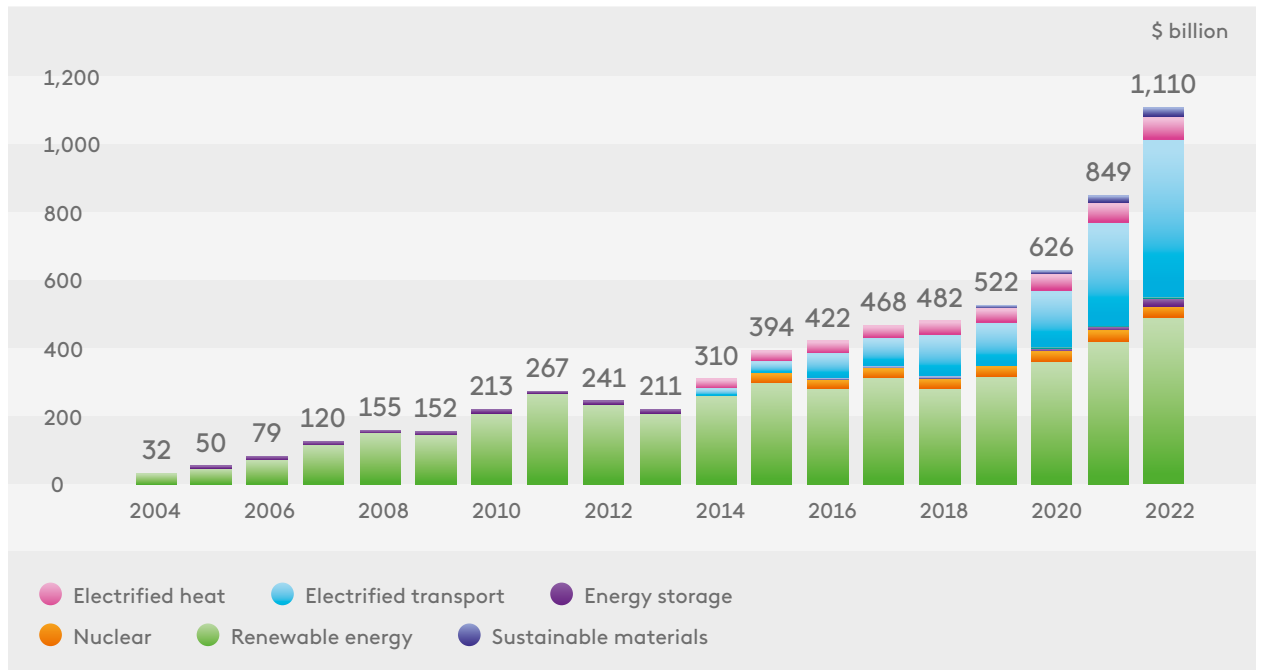
Inconsistent regulation and pricing of emissions spurs a political discussion on curbing carbon leakages. To resolve that problem, the European Union suggested a Carbon Border Adjustment Mechanism (CBAM). Some countries see it as protectionism rather than a climate measure. They believe that it runs counter to WTO standards and generally does not guarantee an effective reduction of global emissions (Barnes, 2021).

Finally, public opinion renders decarbonisation efforts less effective because many are indifferent and sceptical about climate change, thinking it to be an exaggerated issue. According to a 2019 poll, only 41% of respondents said that climate change represented a very serious threat for their country, while the highest percentage of climate change sceptics was recorded in the world's biggest polluters (Lloyd's Register Foundation World Risk Poll, 2019). But concern about climate change issues does not often result in concrete action like assuming personal responsibility and changing one's way of life. Nine out of ten Europeans (90%) agree that greenhouse gas emissions should be reduced to a minimum, but only 64% of them are already taking individual climate action (European Commission, 2021a). That apparently calls for smart allocation of decarbonisation responsibilities among businesses, government institutions, and households — yet another climate dilemma.

Most countries in the world contribute to the green transition by spreading environmentally friendly renewable energy generation technologies. Despite supply chain disruptions and macroeconomic shocks, \$1 trillion was invested in the global energy transition in 2022, a 31% increase from 2021 (see Figure 2). For the first time ever, they were on par with annual fossil fuel production costs (BloombergNEF estimates). Renewable energy sources and electric vehicles attracted the largest investment: \$495.4 billion and \$466.1 billion, respectively. In addition, \$274 billion went to the expansion of power supply networks, while companies specialising in climate technologies raised \$119 billion (BloombergNEF, 2022). Despite the impressive 2022 results, global investments in low-carbon technologies are still not sufficient to combat climate change. Such investments must reach an average of \$4.55 trillion per year; BloombergNEF believes that this will ensure a steady path towards carbon neutrality.

ESG finance is the umbrella term for a diverse group of finance types, including green, social, and sustainable finance (GSS+). Once issued, green and social bonds and loans generate proceeds to finance or refinance green and social projects. According to a Bloomberg Intelligence report published in January 2022, global ESG market assets (including equities and fixed-income instruments) may amount to \$50 trillion, or a third of total projected global assets under management (\$140.5 trillion) by 2025 (Bloomberg, 2022).

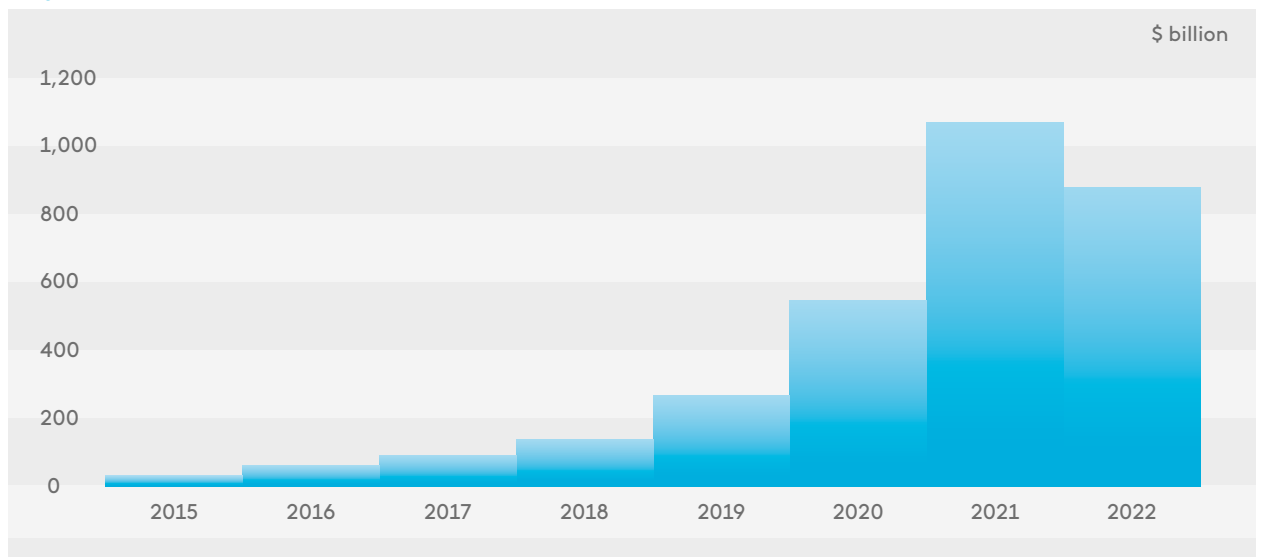
↓ Figure 2. Investments in Energy Transition and Climate Technologies, 2022



Source: BloombergNEF

By the end of 2022, the total value of globally issued GSS+ bonds reached \$862.5 billion, having declined for the first time in market history (a 19% drop from the record-breaking \$1.1 trillion issued in 2021) due to adverse external factors (interest rate hikes by central banks and higher recession risks in some developed countries), but retaining a hefty 5% of the global bond market (see Figure 3).

↓ Figure 3. Global Issuance of GSS+ Bonds, 2012–2022

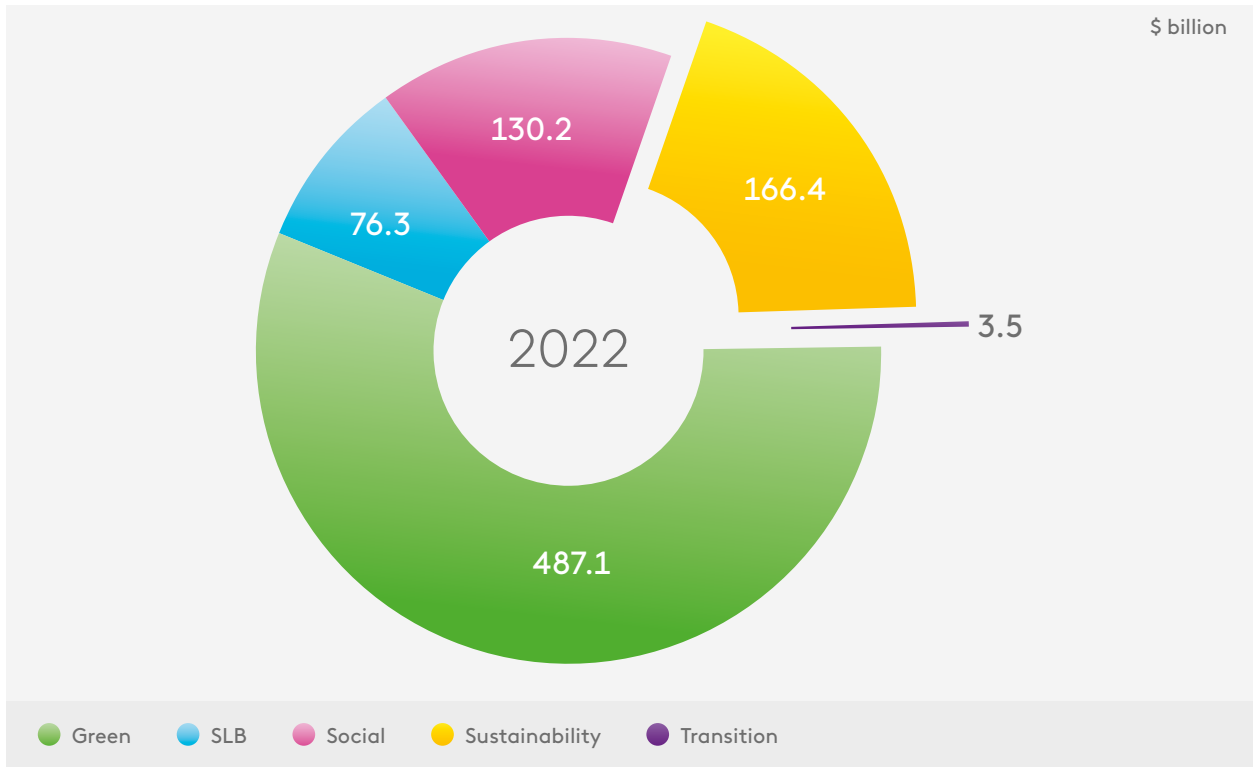


Source: Bloomberg Intelligence

Meanwhile, green bonds saw the smallest year-on-year decline and the highest issuance among all types of GSS+ bonds, dropping 11% from 2021 to about \$480 billion (Mutua, 2023), confirming the focus on the environmental and climatic issues on the sustainable development agenda, and on the trend where total demand exceeds total supply (see Figure 4). In value terms, the highest green bond issue amounts were reported by China (\$76.25 billion), Germany (\$60.77 billion), and the US (\$49.00 billion).

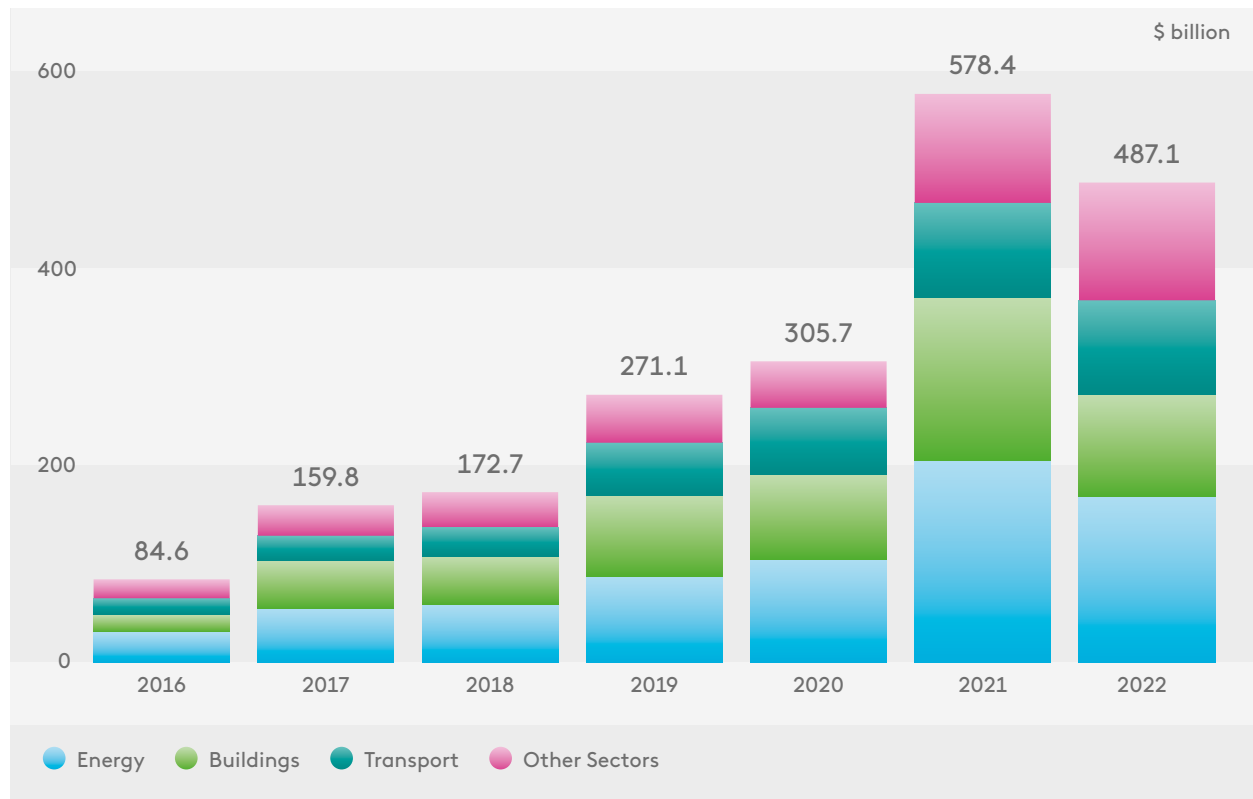
Energy, construction, and transport accounted for 81% of the targeted spending of green bond proceeds (see Figure 5). Analysts believe that 2023 will see global issuance of green bonds recover after the 2022 drop, and potentially reach \$5 trillion by 2025. Climate finance is projected to increase due to the insufficient transformation of world economies and the risks of missing

↓ Figure 4. ESG Bonds: Green, Social, Sustainability (GSS+)



Source: Climate Bonds Initiative.

↓ Figure 5. Global Issuance of Green Bonds



Source: Climate Bonds Initiative, EDB expert calculations

global climate targets. In 2022, McKinsey researchers estimated total capital expenditures required to achieve carbon neutrality by 2050 at about \$275 trillion, an average of \$9.2 trillion per year (McKinsey Global Institute, 2022). Climate finance must amount to at least \$4.3 trillion per year by 2030 to prevent adverse climate change, according to Climate Policy Initiative experts (Naran et al., 2022).

The global green finance compliance benchmark is provided by the Green Bond Principles developed by the International Capital Market Association (ICMA). They list acceptable green project categories, including renewable energy, energy efficiency, preservation of biodiversity, green buildings, etc. The Climate Bonds Initiative (CBI) developed another generally accepted benchmark; it features industry-specific “acceptability criteria”.⁴ Each sector criterion sets threshold values for greenhouse gas emissions to check the compliance of assets and capital projects. The ICMA principles and the CBI standards are the backbone of national and international green finance taxonomies that are gradually introduced across the world.

Green bonds show market participants that their issuers are serious about hitting their climate-related goals and investing in projects with meaningful environmental and climatic impacts (see Box 1). However, investors want to make sure that their funds are used to achieve the stated targets, and actually contribute to the delivery of the promised environmental impacts, so issuers have to make certain additional commitments, i.e., confirm that they comply with international standards and/or national taxonomies, and publish annual spending and impact reports. Demand for green debt instruments exceeds supply because of growing investor expectations for responsible investing. When investors are willing to consent to a lower investment yield on green bonds compared to conventional bonds (“green discount”), it is called the “greenium” effect. The Climate Bonds Initiative reported that only 10 out of 50 corporate green bond issues placed in the first half of 2022 featured a greenium, and all those issues were denominated in dollars or euros (Harrison, 2022). According to a European Central Bank working paper, the average greenium is 4 bps, with the highest greenium for 2016–2021 Eurozone issues posted by Renewable Energy (–22.2 bps) and Banks (–10 bps) (Pietsch, Salakhova, 2022).

Box 1. Key Sustainable Finance Market Players	
Players	Role
Financial sector players, for example, institutional investors, commercial banks, international financial institutions	Invest in accordance with sustainable finance principles or strategies
Corporations	Raise sustainable finance to launch green and social projects
Financial market regulators, for example, central banks, exchanges, governments	Incentivise, create sustainable finance infrastructure, standards, and rules
International associations and non-commercial organisations, for example, the International Capital Market Association (ICMA), UNEP FI	Develop voluntary international sustainable finance standards and principles
Rating agencies and verifiers	Check compliance of financial instruments with international standards and/or national taxonomies
Consultants	Provide sustainable finance services (for example, development of appropriate policies)

Decarbonisation takes centre stage in modern international and national strategies and development plans in sectors and corporations. Carbon payments are the most widespread and effective financial incentive for reducing emissions across a country, for example, payments under emissions quota trading systems or carbon tax payments. The Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) shows such incentives operating in sectors. To assess the carbon intensity of investments and prepare for future financial carbon regulations, corporations set internal carbon prices.

⁴ Climate Bonds Standard. Sector Criteria. Available at: <https://www.climatebonds.net/standard/sector-criteria>

1.2 Green Agenda and Regional Associations

The European Union is leading the way among regional associations with its eager transition to the green economy. In 2019, the European Commission launched the European Green Deal, a comprehensive set of policy initiatives to make Europe carbon neutral by 2050. There are multiple intermediate targets to hit before reaching net-zero greenhouse gas emissions. These targets are ambitious, but necessary: for example, a reduction of emissions by 55% by 2030 from 1990 levels, generation of 32% of energy from renewable sources, and improvement of energy efficiency by at least 32.5% (European Commission, 2020).

The European Green Deal reallocates resources from carbon-intensive industries to clean industries and supports the most vulnerable population as EU economies reduce their carbon intensity. About €1 trillion is expected to finance those initiatives over ten years. The European Green Deal covers nine major policy areas, including reduction of greenhouse gas and pollutant emissions, resource-efficient construction and modernisation of buildings, support of the most vulnerable carbon-intensive regions, afforestation, transition to a closed-loop economy, etc. (KPMG, 2022).

One of the key tools that will be used to achieve the ambitious goals set forth in the European Green Deal is the EU Emission Trading System (EU ETS), set up for the world's first and biggest carbon market. Expansion of the EU ETS footprint and gradual phasing out of free quotas will boost emission prices and encourage manufacturers and consumers to opt for less carbon-intensive alternatives. In February 2023, the carbon price in the EU ETS topped €100 per 1 tonne of CO₂ for the first time, having increased by a factor of five over the last three years (Hodgson, Sheppard, 2023). If EU's trading partners use different climate regulations, this might cause the so-called "carbon leakage". The EU developed a cross-border carbon regulation scheme, or Carbon Border Adjustment Mechanism (CBAM) to address that risk. Starting in 2026, the import of regulated products (including cast iron and steel, cement, fertilisers, aluminium, hydrogen, and electricity) will require an additional payment within the CBAM, depending on the carbon intensity of the goods and the price of emissions in the EU trading system. This will equalise carbon costs in third countries and the EU and ensure the competitiveness of EU producers. At the same time, the payment of the carbon price in the country of origin of products can help reduce the financial burden within the CBAM. The new mechanism is scheduled for a pilot launch in October 2023. Once the switch begins, importers will need to submit reports on the carbon intensity of their imports to the EU. The CBAM has significant implications for the region. It also signals to the non-EU trading partners that national carbon pricing is in order.

The transition to a green economy encourages the reduction of emissions in carbon-intensive industries and investment in green projects. To identify projects consistent with sustainable development and environmental protection goals, the EU developed its own classification of projects, the so-called "green taxonomy" (European Commission, 2021b). To comply with the EU taxonomy requirements, the economic agent should make a substantial contribution to one of the six environmental objectives while avoiding significant harm to the other objectives, and provide social guarantees (Refinitiv, 2021). Initially, the EU taxonomy did not cover nuclear and gas energy activities, but in 2022, the European Commission included them as well (Hernandez, 2022). Finally, transparent and open non-financial information is key to the green transition. That is why the EU introduced the EU Corporate Sustainability Reporting Directive (CSRD), replacing the Non-Financial Reporting Directive (NFRD). The CSRD requires European companies to disclose information regarding the social and environmental impacts of their operations (European Commission, 2021b).

The European Union blazed the green transformation trail, and other countries and supranational associations are now following suit. For example, in 2009, ASEAN adopted the Joint Declaration on the Attainment of the Millennium Development Goals in ASEAN which defined the association's complementary political agenda (ASEAN, 2009). Now ASEAN is establishing

a sustainable development, climate, and environment agenda following the ASEAN Socio-Cultural Community (ASCC) Blueprint (ASEAN, 2016). Back in 2015, ASEAN adopted the Kuala Lumpur Declaration where its member states reaffirmed their commitment to the UN Agenda for Sustainable Development, and pledged to take steps to ensure climate sustainability, support sustainable production and consumption, adopt joint strategic measures in agriculture, tourism, and other sectors of the economies of the member states to improve resilience to climate change, natural disasters, and other shocks. ASEAN was also willing to assume shared responsibility for the protection of the environment and mitigation of climate change impacts in all its member states exposed to various natural and climatic risks (ASEAN, 2015).

ASEAN is laying the groundwork for various institutions, including cross-sectoral platforms, plans, and financial solutions. Sectoral plans are ASEAN's key institutional tool to achieve the SDGs, and promote sustainable or green economies in its member states. For example, it developed the *ASEAN Plan of Action for Energy Co-operation (APAEC) 2016–2025 for the ASEAN Economic Community*, most comprehensive and structured guidelines for its members. Phase II of the Action Plan (2021–2025) focused on decarbonisation of member state economies, and development of renewable energy sources (ASEAN Centre for Energy, 2021). ASEAN seeks to achieve a 23% share of RES in Total Primary Energy Supply, and a 35% share of RES in ASEAN installed power capacity by 2025 through the deployment of large-scale renewable energy systems and exploration of new and emerging energy technologies, such as hydrogen and fuel cells.

ASEAN–EU High-Level Dialogue on Sustainable Development stimulates green growth and the attainment of the SDGs. For example, during the Second ASEAN–EU Dialogue on Sustainable Development, the European Commission offered to contribute to the ASEAN Catalytic Green Finance Facility in line with the European Green Deal, partnering up with the Asian Development Bank and European financial institutions (ASEAN, 2020).

The region has its own standards for ESG bonds, including green bonds, social bonds, sustainability bonds, and sustainability-linked bonds. The standards take their cue from the International Capital Market Association, but are adjusted to the regional specifics. ASEAN bonds issued in accordance with the ESG standards since 2017 total \$29.82 billion (Sustainable Fitch, 2023).

To encourage green finance, ASEAN also adopted a Taxonomy for Sustainable Finance, a guide used to identify and classify sustainable projects and economic activities that contribute to sustainable development and decarbonisation, specifically, mitigation and adaptation to climate change, protection of ecosystems and biodiversity, resource efficiency, and closed-loop economies (ASEAN Taxonomy Board, 2022).

The EU and ASEAN adopt the largest international green agenda mechanisms in Eurasia, and as practical solutions, they should take centre stage. The EU and ASEAN have different economic potentials, so the scale and impact of their mechanisms are not comparable. They, however, can noticeably encourage decarbonisation and facilitate green growth within their macroregions over the long term. Besides, both associations set a good example of inter-block collaboration for the attainment of the SDGs and global climate objectives.

2. GREEN TRANSFORMATION OPPORTUNITIES AND TRENDS IN THE EURASIAN REGION

2.1 Role of International Development Institutions in Decarbonisation of the Eurasian Region Economies

A green transformation looks to rechannel public and private investment flows into sectors with the potential to drive the “greenification” of the economy. The green transformation can only take hold if countries mobilise the resources of national and international development institutions and private capital because such transformation is highly capital-intensive: green projects, environmentally friendly technologies, and digital solutions for decarbonisation and environmental protection all require significant funding.

National and international development institutions are key to raising private capital for investment in social and environmental projects. For example, green infrastructure projects usually produce significant environmental and social impacts, but often generate modest yields, while exposing private investors to higher risks (Browder et al., 2019). Accordingly, MDBs can mitigate risks or offer guarantees for their reduction, and this will encourage private investment in green projects. MDBs prioritise climate finance matters, including adaptation and mitigation. They also focus on ways to see whether climate finance and ESG practices are effective (Lieuw-Kie-Song, Pérez-Cirera, 2020). In 2021, MDBs provided more than \$81.7 billion of climate finance, of which \$50.6 billion was channelled to low- and middle-income countries for climate mitigation and adaptation. Beside the Eurasian Development Bank, other major MDBs operate in the Eurasian region, including the World Bank, the European Bank for Reconstruction and Development, the Asian Development Bank, the Asian Infrastructure Investment Bank, and the Islamic Development Bank. In 2021, Central Asia countries received only 4% of total climate finance provided by MDBs to low- and middle-income countries (EIB, 2022).

As one of the world’s leading green supporters, the European Investment Bank (EIB) allocates significant investment capital to explore renewable energy sources, improve energy efficiency, develop new types of transport, protect biodiversity, etc. The EIB focuses on the co-operation with Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan, and their transition to a sustainable climate-neutral growth model. This programme inspired the EIB to create a diverse and rapidly growing regional portfolio comprising approved projects totalling about €1 billion, including approved loans for €863 million, targeting the Trans-Caspian International Transport Route (TITR) (Silk Road Briefing, 2023).

The World Bank has its own sustainable development programmes in the Eurasian region, for example, the large-scale Central Asia Water & Energy Programme (CAWEP). It is fully aligned with the World Bank Group’s Climate Change Action Plan (World Bank, 2022). The programme pursues the following objectives:

- strengthen national institutional capacities of Central Asia countries in water and/or energy resource management, regionally and nationally;

- encourage sustainable and effective use of shared water resources and integrated management of water resources;
- promote secure and cost-effective supply of energy resources from the national to the regional level;
- monitor the expansion of water and energy links and improve adaptation to climate change that involves two or more countries..

The World Bank Group has already issued grants of \$12.9 million. It seeks to invest an additional \$2.5 billion in 2023, and continue to support the International Fund for Saving the Aral Sea (IFAS) and the Central Asia Regional Economic Co-operation (CAREC). Other MDBs are also launching projects in the Central Asia water and energy complex (see [Box 2](#)).

Box 2.
MDBs in the Development of the Water and Energy Complex of Central Asia

MDBs are instrumental in the development of the Central Asia water and energy complex because they offer grant-based or soft-termed financing and factor in extended cycles and high costs. Such financing is special because it is impossible to raise arm’s-length financing fully covering all project launch needs on reasonable terms and with acceptable risk. That is why institutions usually offer grants and soft loans to finance wind and solar energy projects, as well as costly geothermal energy projects in Central Asia.

Such grants were provided by the Global Environment Facility, the Clean Technology Fund, and the International Development Association. Financing of water and energy complex projects requires rigorous preliminary analysis and technical assistance throughout the entire project lifecycle.

MDBs provide risk coverage, syndicate project membership, and raise additional public and private funding for infrastructure projects. That is how they have gained the lead on the other players.

Examples of Central Asia water and energy complex financing by MDBs:

- There are 104 ongoing MDB-financed projects with a total value of \$10.2 billion.
- The EBRD tops the list of funding providers with a portfolio of \$3.3 billion, or 32,7% of total MDB financing in Central Asia.
- It is followed by the World Bank (\$3.0 billion, or 29.6%) and the ADB (\$2.6 billion, or 26.2%).
- The combined EDB, EFSD, EIB, and AIIB portfolio stands at \$1.2 billion (11.5%).

Source: Vinokurov, Ahunbaev, Usmanov et al., 2021.

The European Bank for Reconstruction and Development (EBRD) established the Green Economy Financing Facility (GEFF) to support enterprises and households willing to invest in green technologies. The GEFF programme involves over 140 local financial institutions in 26 countries, with total EBRD financing of more than €4 billion. Those investment projects reduce CO₂ emissions by almost 7 million tonnes per year. The GEFF footprint covers all countries of the Eurasian region.⁵ In addition, the EBRD is working on other programmes in the Eurasian region. In particular, it seeks to improve climatic resilience of water and energy sectors of Central Asia countries, partnering

⁵ European Bank for Reconstruction and Development. Green Economy Financing Facility. Available at: <https://ebrdgeff.com/about-seff/>.

up with the Global Environment Facility (GEF), the World Bank, and the Asian Development Bank (ADB). For example, the GEF-funded joint EBRD–FAO Finance and Technology Transfer Centre for Climate Change (FINTECC) is eager to promote sustainable agriculture, trickle irrigation, more effective pasture performance, and precision agriculture in the Central Asia countries.

The Asian Development Bank intends to dedicate at least 75% of its operations to climate action, and is going to disburse up to \$100 billion in climate finance to its member states until 2030 (ADB, 2021b). The bulk of that funding (\$66 billion) will go towards energy conservation, energy efficiency, and low-carbon transport. The balance (\$34 billion) will scale up adaptation projects, for example, to improve sustainability of water supply and enhance municipal and agricultural infrastructure. The ADB plans to raise another \$18–30 billion to achieve both listed and other climate targets, improve access to new climate-related technologies, and mobilise private capital to combat climate change. In addition, the ADB pledged to invest more in climate adaptation and sustainability improvement, up to \$9 billion by 2024, and to \$34 billion by 2030. Following COP26 in Glasgow, the ADB launched the \$665 million ASEAN Green Recovery Platform to accelerate post-pandemic recovery and mobilise an additional \$7 billion for low-carbon and climate-resilient infrastructure projects in Southeast Asia (ADB, 2021c). The largest ADB programmes in the Eurasian region focus on Central Asia countries. Incidentally, the ADB refuses to finance any coal power station projects.

The Asian Infrastructure Investment Bank (AIIB) also prioritises investments in green and resilient infrastructure and technology to improve the local environment and combat climate change. At COP27 in Sharm El Sheikh, the AIIB said it planned to align its activities with the Paris Agreement by 1 July 2023, and direct 50% of total approved financing to climate goals by 2025 (AIIB, 2022). Some AIIB projects in the Eurasian region are provided in the section dedicated to industry-specific investments.

The Islamic Development Bank (IsDB) is also contributing to the green transformation of the Eurasian region through its Special Programme for Central Asia. The IsDB Regional Hub Almaty is the home base for continued expansion of its operations in the area. The Bank's most noteworthy green project is \$200 million allocated to sustainable rural development in Uzbekistan. It includes resilient irrigation and drainage canals, drinking water infrastructure, road network and bridges, rural electricity, and social infrastructure facilities (IsDB, 2021). The IsDB helped Kazakhstan develop the *Master Plan for Islamic Finance Development and the Astana International Financial Centre (AIFC) Action Plan Until 2025*. It covers various areas of development, including Islamic banking, halal industry, and Islamic finance infrastructure (Plus World, 2021).

In 2022, the Eurasian Development Bank (EDB) made a quantum leap in sustainable development: it performed an integrated testing of all its processes, assessed the progress of ESG standards in its operations, reviewed its internal documents and procedures, interviewed the employees of its key units, identified gaps and potential improvement areas, explored global best practices promulgated by its peers, and examined applied research findings. In late 2022, that culminated in the first *Sustainable Development Strategy 2022–2026* where the Bank stated its ambition to become the ESG Financial Institution No. 1 in Eurasia.

The EDB continues to finance projects specialising in renewable energy sources and energy efficiency. In mid-2021, investments in such projects totalled about \$650 million, including \$600 million for energy projects (solar, wind, hydro) (EDB, 2021). The EDB plans to include large-scale projects in its green project portfolio, such as the Eurasian Transport Network, the Eurasian Distribution Network, the Central Asia Water and Energy Complex, etc.

The Bank signed a number of memoranda to achieve the SDGs in the Eurasian region.

- In June 2020, the EDB and the International Bank for Economic Co-operation (IBEC) signed a Memorandum of Understanding with respect to certain UN SDG attainment projects for 2015–2030.
- In December 2020, the EDB and the UNDP signed a Memorandum of Understanding (EDB, 2020). The parties pledged to make joint investments in the SDGs, increase the share of investments in public infrastructure, including investments in a shared digital universe, and boost green finance in the CIS area.

The EDB is a member of the Multilateral Financial Institutions Working Group on Environmental and Social Standards. In 2021, the Bank made an initial public offering of its three-year 10.5% green bonds at the Kazakhstan Stock Exchange (KASE) for a total of ₸20 billion (KASE, 2021). The Bank used the proceeds to finance environmentally relevant projects in Kazakhstan.

In 2020, the EDB became a shareholder of the Green Finance Centre of the Astana International Financial Centre (AIFC) seeking to expand its green finance operations and create a green finance and green expertise centre in Kazakhstan (AIFC Green Finance Centre, 2020). In August 2021, the EDB and the AIFC Green Finance Centre signed a contract to step up their development and launch of green and social projects in the Republic of Kazakhstan.

2.2 Industry-Specific Investments in the Green Transformation of the Economy

Energy, Industry, Transport, Buildings, and Fugitive Emissions are the main greenhouse gas emitters in the Eurasian region (see Figure 6).

↓ Figure 6. Sectoral Structure of Greenhouse Gas Emissions, 2019



Source: CAIT Climate Data Explorer, calculations of EDB analysts

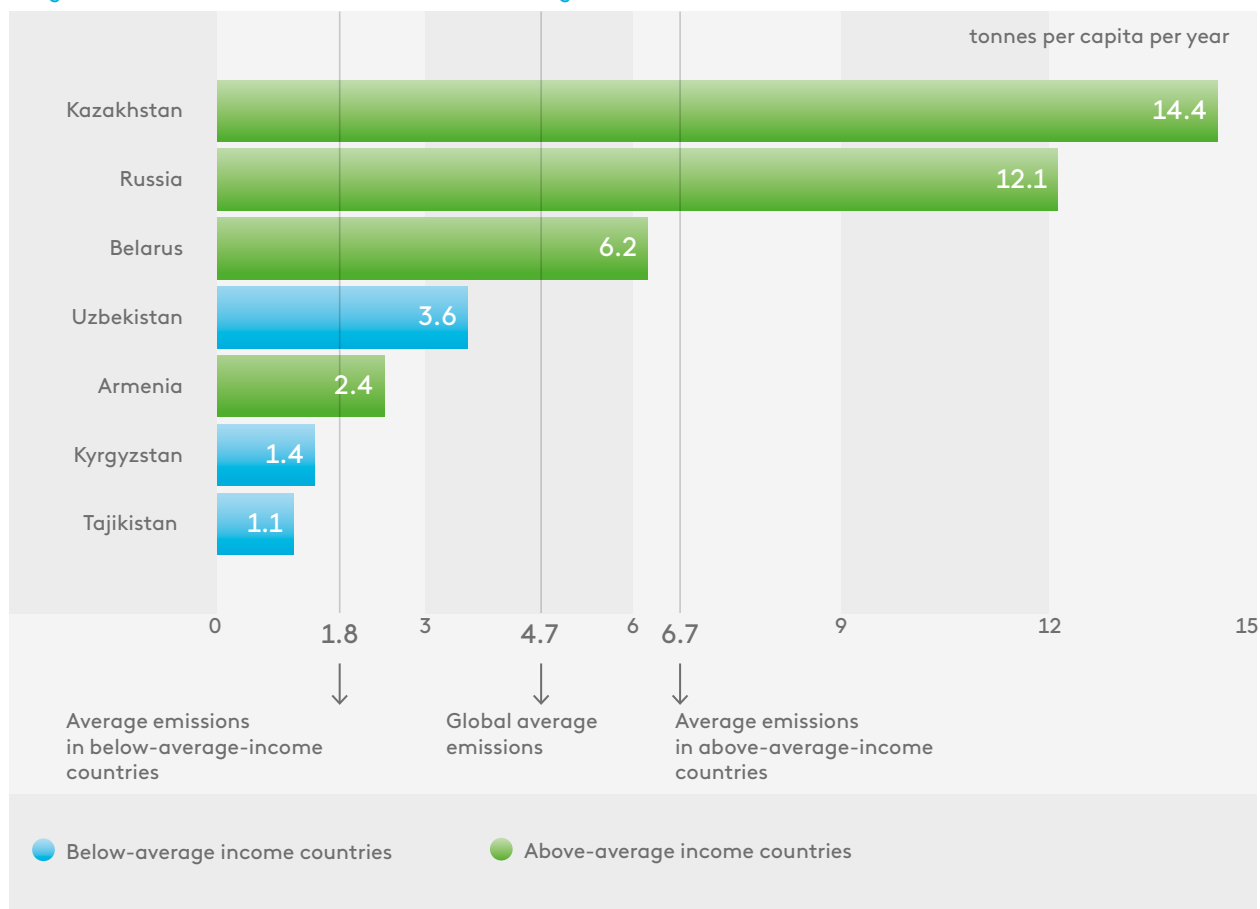
The Eurasian region contributes more to global carbon dioxide emissions than to the global economy. In 2021, its countries accounted for 6% of global emissions, while their combined shares of the world’s GDP and population were 3.9% and 2.9%, respectively. The situation differs from country to country. Russia is a net emitter of carbon dioxide. Its share in total

global emissions is 4.7% due to the largest energy and industrial production sectors in the region. It is followed by Kazakhstan (0.7%) with its massive coal power generation.

Most of the carbon dioxide emissions in the Eurasian region come from combusting natural gas. It is the main source of emissions in Armenia (80.2% in 2021), Uzbekistan (79.1%), Belarus (60.5%), and Russia (49.8%). Coal combustion generates the most greenhouse gas emissions in Kazakhstan (65.4%), and Tajikistan (50.1%). In Kyrgyzstan, oil (45.5%) is one of the significant sources of greenhouse gas emissions along with coal (38.7%).

In several countries of the Eurasian region, carbon dioxide emissions per capita exceed the global average (4.7 tonnes), with 14.4 tonnes in Kazakhstan, 12.1 tonnes in Russia, and 6.2 tonnes in Belarus in 2021. Other countries of the region have somewhat lower emissions: 3.6 tonnes in Uzbekistan, 2.4 tonnes in Armenia, 1.4 tonnes in Kyrgyzstan, and 1.1 tonnes in Tajikistan (see Figure 7).

↓ Figure 7. Carbon Dioxide Emissions in the Eurasian Region, 2021



Source: Global Carbon Project, calculations of EDB analysts

The green agenda focuses primarily on the major emitting sectors. The Eurasian region is developing and launching projects that directly or indirectly facilitate decarbonisation and sustainable economic development.

At this stage, countries follow their national green finance standards (taxonomies) or recognised international standards to finance green or adaptation (transition) projects. In the Eurasian region, Kazakhstan and Russia adopted national green project taxonomies drawing on the green finance principles and taxonomies introduced in the PRC, the EU, ASEAN, and other leading economies and international organisations. The EAEU model taxonomy relies on Kazakhstan’s and Russia’s experience and global best practices (EEC, 2023b), so it offers an expanded list of green project target areas and criteria adjusted for the region’s economic realities. The following sections describe the key areas of the green transformation of the most carbon-intensive sectors, with references to green project taxonomies and specific use cases.

Renewable Energy

The energy industry, particularly thermal power, is the main source of greenhouse gas emissions in the Eurasian region. In 2019, it accounted for 42.5% of the region's total greenhouse gas emissions. It was even higher in Belarus (48.6%) and Russia (44.1%).

To advance green power engineering, countries should focus on solar, wind, water, geothermal, and biomass energy. The key directions of advancement of green power engineering include the use of solar, wind, water, geothermal, and biomass energy. That said, the EAEU model taxonomy factors in the Russian green taxonomy experience, so it also considers nuclear energy to be a green project, provided that the country has an approved plan for handling both non-radioactive and radioactive waste and ensures its maximum reuse or recycling at the end of its service life. In addition to generating energy from renewable energy sources and low-carbon fuels, the EAEU model taxonomy focuses on:

- creating and upgrading infrastructure, manufacturing equipment for processing, storage, and transportation of low-carbon fuel;
- launching projects to improve the energy and environmental efficiency of energy facilities;
- creating and upgrading infrastructure for waste disposal, i.e., products of the energy industry;
- manufacturing equipment or installations for generating energy from renewable energy sources and low-carbon fuels;
- constructing facilities for storing electricity and heat from renewable energy sources.

In fact, wind, solar, hydro, and nuclear power engineering is the most effective solution for the Eurasian region. Hydrogen has a lot of potential applications, from energy storage agent to technical gas for hydrotreatment of petroleum products and production of low-carbon steel. By 2050, hydrogen will meet from 12% to 13% of the total final demand for energy, according to the forecasts published by the International Energy Agency (IEA) and the International Renewable Energy Agency (IRENA) ([Van de Graaf, 2022](#)).

For the time being, the countries of the Eurasian region are failing to keep up with global renewable energy trends. According to the EDB estimates, the aggregate installed RES capacity in the EAEU is about 71 GW, or merely 2.5% of the global total. Eurasia, however, has enormous potential for both green technologies, such as water, solar, or wind power generation, and technologies requiring an extensive petrochemical infrastructure, such as hydrogen production ([Vinokurov, 2021](#)).

Nuclear power generation (included in the green project taxonomy in Russia and in the EAEU model taxonomy) should be a critical component of the energy transition. Kazakhstan and Russia hold almost a quarter of global uranium reserves, and, according to the World Nuclear Association (WNA), those two countries produce half of the world's reactor-grade uranium. Russia dominates the global nuclear power engineering market with its cutting-edge nuclear technologies and robust R&D potential, and is building numerous nuclear power stations across the world ([EEC, 2021a](#)). Kazakhstan is the world's largest producer of natural uranium and a major manufacturer of nuclear fuel components, so nuclear energy can seriously reduce its GHG emissions ([Khaldarova, 2023](#)). Kazakhstan's and Russia's nuclear fuel production facilities and technologies complement each other, a bellwether of a potential integration of their nuclear power engineering complexes ([Absametova, Vinokurov, 2011](#)). Armenia is considering building a nuclear power unit ([Armenpress, 2022](#)). Uzbekistan is getting ready to construct the country's first nuclear power station in Jizzakh Region. It is expected to go live in 2033 ([Ministry of Energy of the Republic of Uzbekistan, 2019](#); [TASS, 2022](#)). This shows that the nuclear power industry is crucial for the green energy transition in the Eurasian region.

In 2021, Russia and Uzbekistan became two of the top 15 emerging markets that attracted investment in RES projects, according to BloombergNEF (Maia, Demôro, Foroni, 2022). Countries that use RES, including bioenergy and hydrogen, enjoy new solutions for transport, construction, and industry. There are plans to employ green hydrogen production technologies; this will cut the carbon footprint of oil refineries. Lukoil PJSC and RusatomOverseas JSC replaced “conventional” hydrogen obtained by steam methane reformation with “green” hydrogen manufactured by electrolysis using RES energy (Ministry of Economic Development of the Russian Federation, 2022). This project illustrates just how effective green hydrogen production technology can be.

Uzbekistan plans to build new solar and wind power plants with a total capacity of 5,000 MW and 3,000 MW, respectively, by 2030 (Ekonomicheskii vestnik Uzbekistana, 2020). Investors will be selected under the public-private partnership model with the assistance of the World Bank, International Finance Corporation, ADB, and EBRD. Tutly Solar Farm is one of the first solar power stations in Uzbekistan. It was designed by the French company Total Eren and launched in July 2022 with an installed capacity of 131 MW. Foreign investments totalled about €100 million. Two 200 MW solar power stations will be built in Samarkand Region and Jizzakh Region. The country is also working on a 1,500 MW wind power station in Gijduvon District, Bukhara Region, under a \$1.8 billion joint project with the Chinese corporation Liaoning Lide. The solar energy potential enables Uzbekistan to synchronise the green agenda with inclusive and sustainable economic growth (Abidhodzhaev, 2021).

The ADB estimates Tajikistan to top the Eurasian region’s clean energy rankings: hydropower engineering dominates its energy system, accounting for 93% of total power generation and about 90% of total installed capacity (ADB, 2022b). This is due to the country’s geographic position and abundant water resources. Consequently, Tajikistan’s energy sector has one of the lowest carbon footprints in the world. By the end of 2021, Tajikistan received \$585 million of power industry financing provided under the Country Partnership Strategy (2021–2025) of the Asian Development Bank (ADB) for Tajikistan (fully aligned with the Tajikistan National Development Strategy until 2030) (Zakhvatov, 2023).

Among high-potential power engineering projects in Kazakhstan, alternative energy sources projects stand out (including small HPPs) because they are numerous and are likely to receive large funding. One of the landmark projects is the construction in Kazakhstan of a 100 MW Janatas Wind Farm, the largest in Central Asia. This will reduce GHG emissions by more than 260 thousand tonnes each year (AIIB, 2019). The country is also looking to build wind and solar power stations in Mangystau Region with a total installed capacity of 40 GW, and production of up to 2 million tonnes of green hydrogen by 2032. The total value of high-potential projects designed to increase generation capacity is \$2,689.8 million, with alternative energy sources accounting for \$1,508.4 million, or 56.1%, including \$1,168 million (43.4%) for wind generation, \$323.1 million (12.0%) for solar generation, and \$17.4 million (0.6%) for bioenergy. HPP construction projects (\$436.3 million, or 16.2%) can also be classified as “clean” energy sources; their development is critical, because large HPPs can be used as manoeuvrable capacity reserves (Vinokurov, Ahunbaev, Usmanov et al., 2021).

Water and energy complex projects are high-potential RES investment targets, and should be classified as such. That sector is crucial for Central Asia, because water resources are the only way for the region to achieve its sustainable social and economic development goals.

Central Asia does not reach the full potential of its water and energy complex resources. The EDB estimates ensuing economic damage and unrealised economic benefits at \$1.3–4.5 billion (Vinokurov, Ahunbaev, Usmanov et al., 2021). Annual losses may reach 1.5% of the regional GDP, with 40% coming from the water sector and 60% from the power sector. If the region addresses the losses, it will save \$22 billion by 2025.

Water and energy complex issues are high on the agenda when it comes to the regulation of international integration and national development. In particular, it is the key topic for national and international development banks involved in RES projects. The Central Asia water and energy complex has poor investment appeal, and profitability of related projects is too low from the viewpoint of private capitalists and foreign investors. This is why MDBs provide important financial resources to launch state-initiated development projects. The region needs more investment in the construction and modernisation of water treatment facilities and state-of-the-art water conservation technologies, development of new generation capacity, including hydro power plants, high-tech CCGT plants, solar and wind power plants, nuclear power plants, etc. Accordingly, the Eurasian Development Bank intends to invest at least \$400 million in the Central Asia water and energy complex until 2026 (EDB, 2023). As noted above, some MDBs are launching their own investment programmes in this sector, including the World Bank, the Asian Development Bank, the Islamic Development Bank, etc.



Box 3. **EDB RES Use Cases**

In 2021, the EDB approved its new 2026 Strategy where the Bank gives priority to the management of the target impacts of environmentally sustainable development. The EDB intends to increase the share of green projects in the Bank's portfolio from the current 15% to 25% by 2026.

Under the Renewable Energy Financing Programme, the Eurasian Development Bank is going to finance construction of 11 solar power stations with a total capacity of up to 65 MW in Gegharkunik and Aragatsotn Regions of Armenia in 2023.

The Bank financed the construction of a 100 MW solar power station in Almaty Region; it includes a solar park of 270 hectares, a 220 kV substation and a 220 kV high-voltage line, which will generate about 160 million kWh of energy and possibly reduce CO₂ emissions by 150 thousand tonnes per year. The EDB also financed the Shardara HPP Modernisation Project and the construction of a 50 MW wind power station near the town of Yereymentau.

In Russia, the Bank fully funded the construction of the ENEL-Russia wind park in Azov. The wind park's capacity of 90 MW reduces CO₂ emissions by 260 thousand tonnes per year.

The Bank supports energy efficiency improvement projects; for example, it financed the construction of an industrial gas facility at the EVRAZ West-Siberian Metal Plant JSC production site. The project reduces greenhouse gas emissions by more than 100 kt CO₂e.

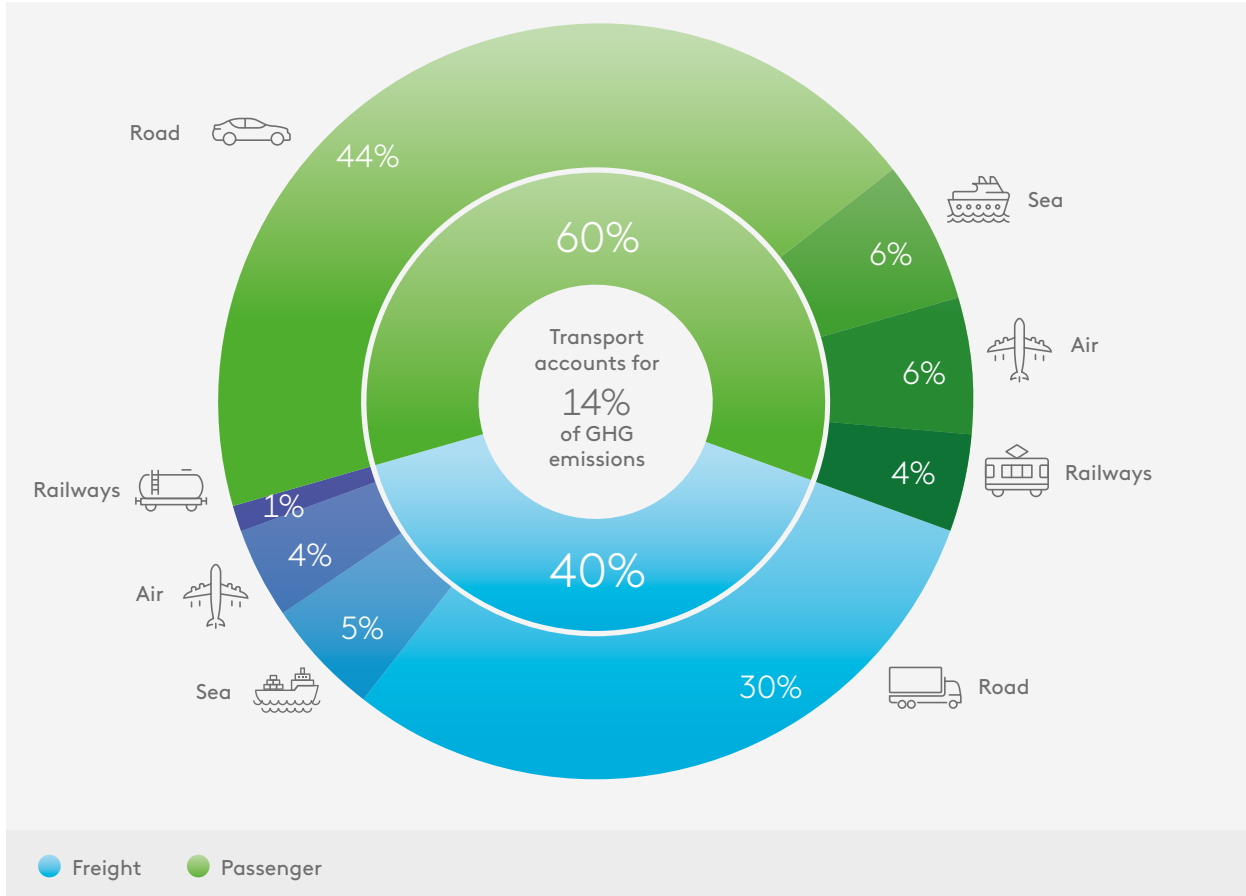
The EDB plans to encourage Kazakhstan to use more RES in its energy sector. Kazakhstan's total generation capacity is 23.5 GW, and coal combustion accounts for about 80% of that capacity, according to the preliminary estimates of EDB analysts. Over the next five years, the Bank will finance solar and wind generation projects with an aggregate capacity of 300 MW (about 1.3% of the country's total energy balance), a meaningful increase subject to the current carbon footprint reduction plans until 2030, and then 2050.

If we factor in the current installed solar generation capacity and the total RES capacity, in particular, hydropower, the EDB will add approximately 20% to Kazakhstan's RES capacity over the next five years. Subject to a concurrent elimination of coal from the energy balance, the country's carbon footprint will be decreased by 1.7% (by 1.4%, if capacity increase is achieved without decommissioning coal-fired heat power stations). This is an example of how the carbon footprint of a country's economy can be reduced by modifying its energy balance through the elimination of coal and increase of the share of RES (solar, nuclear, wind, and hydro power).

Transport Sector

The transport sector accounts for 14% of total carbon dioxide emissions. Transport emissions increase every year due to the rapid growth of the vehicle-to-population ratio, particularly in developing countries, according to the Partnership on Sustainable Low-Carbon Transport (SLOCAT). Motor vehicles, primarily private cars, make the largest contribution to total CO₂ emissions (74%). The passenger transport sector and the freight transport sector are responsible for 60% and 40% of total emissions, respectively (see Figure 8).

↓ Figure 8. Structure of Carbon Dioxide Emissions by Type of Transport Operations



Source: SLOCAT, 2018

The share of the transport sector in total greenhouse gas emissions is particularly high in Armenia (21%) and Belarus (18.4%).

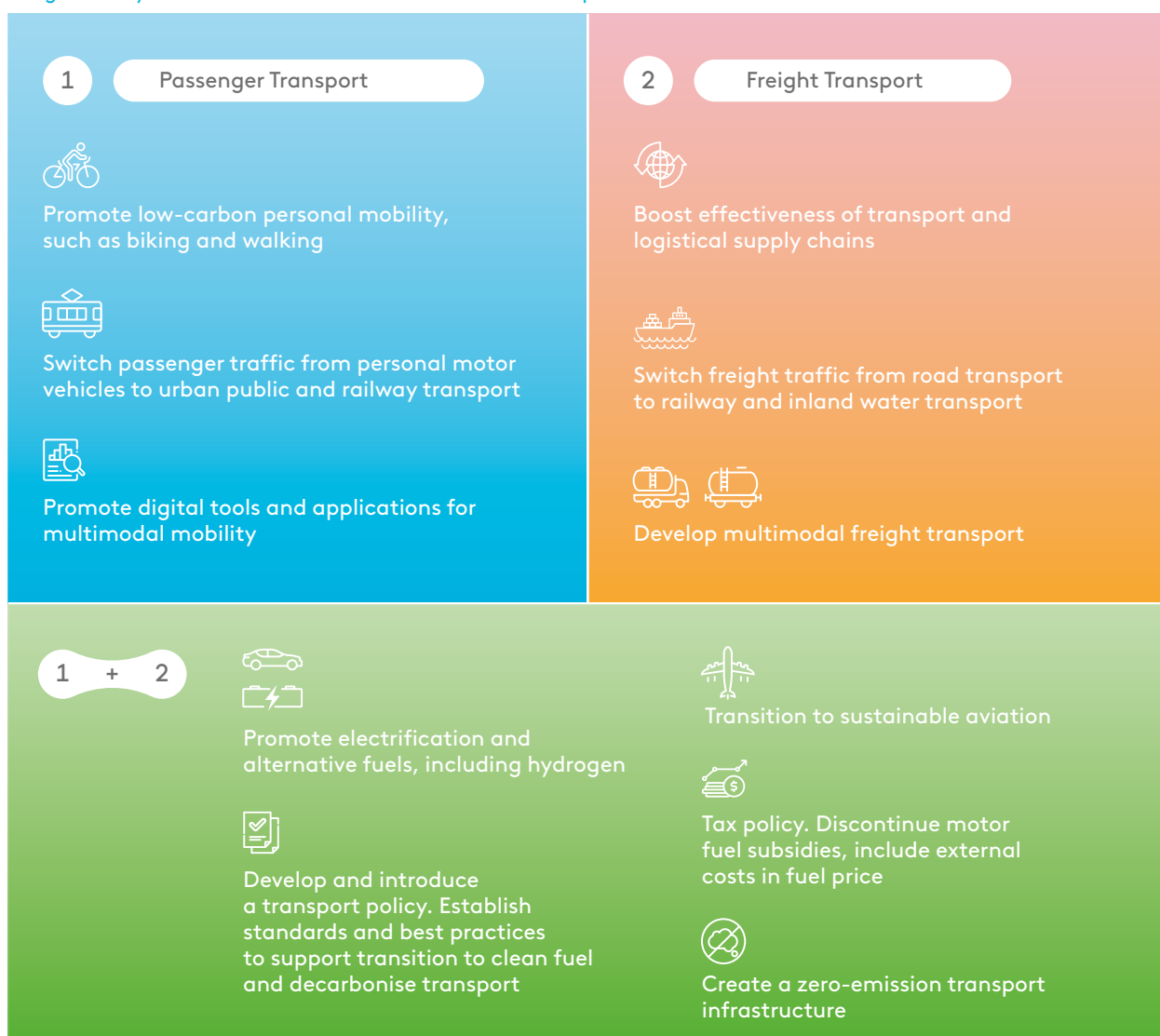
According to the EAEU model taxonomy, the transport sector has the following key green project types:

- production of motor vehicles and rail vehicles using green sources of energy; construction and modernisation of low-carbon infrastructure facilities for public transport;
- production of rechargeable batteries for electric vehicles and their components, hybrid power supply systems; disposal and recycling of rechargeable batteries and their components.

See below the key areas of the green transformation of the transport sector and transport decarbonisation projects according to the Guidelines promulgated by the Sustainable Mobility for All (Sum4ALL) initiative (Figure 9).

International transport corridors, routes, and links in the Eurasian Transport Network would slash emissions in the Eurasian region. It is a key integration megaproject promoted by the Eurasian Development Bank.

↓ Figure 9. Key Areas of the Green Transformation of the Transport Sector



Sources: Sum4ALL, EDB analysts

Electrified railway transport gives the Eurasian transport corridors and routes an important competitive advantage in long-distance freight transport because it is a well-known green means of transport. Railways lower greenhouse gas emissions in freight transport. The EDB estimates the average direct and indirect GHG railway emissions at 18 g/tkm. Maritime transport produces marginally lower emissions in deep-sea marine freight (12 g/tkm) (Vinokurov, Ahunbaev, Shashkenov et al., 2021). The other modes of transport are less green among the existing practically available technologies. Railway transport produces two times less emissions than inland water transport (42 g/tkm), seven times less than road transport (121 g/tkm), and thirty times less than air transport (544 g/tkm).

Large-scale transport infrastructure will not only reduce travel time and decrease carrier operating costs, but also indirectly promote sustainable development. In addition to trade expansion, development of the East–West and North–South ITCs promotes construction of industrial parks and special economic zones along the transit routes, facilitates co-operation in production of goods and services, and establishes new manufacturing and logistical chains connecting the countries of the Eurasian region with their foreign trading partners (Vinokurov, Ahunbaev, Zabojev et al., 2022). Along with promising economic growth prospects, this creates new jobs and improves the well-being of the local population.

In addition, the countries of the region are encouraging the use of electric transport and development of related infrastructure (Sber, 2022b). There are plans to increase the electric vehicle

pool to 100 thousand by 2030 in Armenia, and by 2025 in Belarus. Russia may reach 1.4 million domestic and foreign electric motor vehicles by 2030 vs. the estimated 630 thousand units (Sber, 2022a). Electric transport is also gaining popularity in Tajikistan (CIS Internet Portal, 2022a) and Uzbekistan (National Database of the Legislation of the Republic of Uzbekistan, 2022), but the countries have not set any clear-cut quantitative targets in those countries yet.

Individual cities and regions are increasingly replacing buses with e buses in Belarus, Kazakhstan, and Russia as part of their plans to achieve carbon neutrality. For example, three e bus depots with the infrastructure are to be built in Almaty by 2030. E buses are also going to be introduced in Aktau, Astana, and Pavlodar (Turysbekov, 2022). A regular e bus passenger service is to be launched along the Almaty–Bishkek economic corridor, supported technically and financially by the ADB. In addition, the ADB gave Kyrgyzstan \$50 million to support the long-term transformation of the Bishkek transport system, in particular, to replace minibuses, a source of significant pollution, with a fleet of 120 e buses (ADB, 2021a). The Moscow government intends to switch to e buses within the Garden Ring completely by 2025. All these projects by individual countries foster technological co-operation. This is why the EEC Council approved a set of measures in February 2023 to stimulate co-operation of the EAEU member states in the production of electric vehicles and their components, including the Eurasian E Bus pilot project (EEC, 2023a).

The EAEU is encouraging the transition to electric vehicles, for example, exempting all electric vehicles imported by the citizens of Armenia, Belarus, Kazakhstan, and Kyrgyzstan from customs duties until 2024. Some countries are introducing carbon-free personal mobility systems (shared use of e bikes and e scooters), including national standards for electric personal mobility devices (Eurasian Certification Company, 2022).

Industry Sector

The highest industry-generated greenhouse gas emissions are reported by the small economies, such as Tajikistan (13%), Kyrgyzstan (6.5%), and Armenia (5%), while the regional average is 2.9%. The situation with fugitive emissions is quite different, with the average for the Eurasian region standing at 24.1%. In Russia, with its extensive extractive industry, fugitive emissions make the strongest impact (28.2% of total emissions). It is critical to employ modern technologies to reduce methane emissions, process methane generated in the extraction of coal and production, refining, storage, and transportation of hydrocarbons, and process associated gas.

Industry-related green projects leave much to discuss, and may warrant an in-depth analysis in a separate EDB report. We would like to note briefly that waste paper processing by pulp and paper enterprises is assigned to a separate industry section in the EAEU model taxonomy. In addition to pulp and paper, the Russian taxonomy of green and sustainable projects also mentions the production of steel, aluminium, cement, ammonia, mineral fertilisers, and inorganic acids. According to a reference publication on the best available technologies, projects need to meet certain resource and energy efficiency criteria to be classified as green.




For example, cement production facilities must substitute 10% or more of natural raw materials with various industry waste. Metallurgical plants should demonstrate compliance in the following areas:

- carbon intensity of individual production processes, pollutant emissions and discharges (down by 10% or more);
- resource and energy efficiency (up by 10% or more), and a closed water circulation cycle which excludes the discharge of industrial sewage water;
- use of energy-valuable process gases (coke gas, blast furnace gas, converter waste gas, and ferroalloy furnace gas);

- use of hydrogen fuel to produce cast iron;
- application of high-potential technologies, including greenhouse gas capture and storage technologies, and inert anode aluminium production technologies.

The green transformation of industry is supposed to reduce greenhouse gas and pollutant emissions, including direct emissions from production processes and indirect emissions from consumption of energy and electricity, and recycling-based reduction of water use and waste generation. Industrial production needs to decrease carbon intensity, so countries comply with international carbon-neutrality commitments, and developed economies impose increasingly severe restrictions on pollution-intensive imports. Cue clear energy-efficient technologies and a transition to RES, a requirement for the green transformation of carbon-intensive economic sectors (see Figure 10).

↓ Figure 10. Priority Industry Decarbonisation Solutions

<p>Increase energy efficiency to reduce costs and emissions</p>		<p>Improve energy efficiency by setting targets, monitoring use, retrofitting technology, and increasing RDD&D</p>
<p>Replace fossil fuels with low- to zero-carbon energy sources</p>		<p>Electrification for low and medium temperature processes Clean Hydrogen for high temperature processes</p>
<p>Install carbon capture and storage technology to capture emissions</p>		<p>Carbon capture, use and storage for point source emissions (fuel combustion and industrial process emissions)</p>

Source: World Resources Institute.



The EDB supports energy efficiency improvement; for example, it financed the construction of an industrial gas facility at the EVRAZ West-Siberian Metal Plant JSC production site. The project reduces greenhouse gas emissions by more than 100 thousand tonnes of CO₂ equivalent.

Industrial symbiosis is a very promising tools for the green transformation of the industry sector. It creates a closed-loop economy where excessive resources or waste of one company become resources for another company. Such alternative economic model will require a reimagining of the conventional useful life to identify new ways to use goods, and will apply sustainable design principles to product manufacturing. That includes waste prevention measures, recycling and reuse of goods and packaging, and technological and administrative innovations (Wiesmeth, 2020). Russia is piloting an industrial symbiosis: the Live Laboratory eco-industrial park under the Baltic Industrial Symbiosis international project developed with the Saint Petersburg Cleantech Cluster for Urban Environment. For example, the waste generated in the production of food preserves is processed into eed for shrimp farms; used coffee grounds from a coffeehouse chain and peat production waste are mixed and used to cultivate mushrooms, and a new technology of used car tyre plasma incineration produces energy for all cluster residents (Krivoshapka, 2021).

Best available technologies (BAT) are another tool for the green transformation of the industry sector. Global BAT policies prevent or reduce emissions in industry branches that are major emitters. They also reduce the environmental impact of industrial activities. For example, they adjust the volume of utilised resources, prevent waste, replace toxic substances, improve production processes, and minimise disruptive exposures (OECD, 2019).

Agriculture

Agriculture accounts for 10% to 30% of global greenhouse gas emissions, and cattle breeding is the main source of such emissions. Beef cattle breeding and production of beef and cow milk account for about 62% of total greenhouse gas emissions in cattle breeding, while all other animal species (pigs, poultry, smaller ruminants) are responsible for about 7–11% of total agriculture emissions. In GHG emissions, methane accounts for about 50%, while nitrous oxide (N₂O) and carbon dioxide (CO₂) account for 24% and 26%, respectively (FAO, 2022). In the Eurasian region, agriculture is a major contributor to total emissions in Kyrgyzstan (40.4%), Tajikistan (37.3%), and Belarus (30.7%). In the future, climate change and the increasingly heavy anthropogenic burden may intensify soil degradation, according to the Food and Agriculture Organisation of the United Nations (FAO).

To reduce carbon intensity of agricultural production, the EAEU model taxonomy suggests the following green project types:

- procurement of mineral fertilisers which improve absorption of nutrients, reduce harmful substances penetrating soil and ground waters, and minimise greenhouse gases in agricultural production (including reduction of fresh (natural) water consumption by at least 30%, water recycling, use of RES, or reduction of energy consumption by at least 20%);
- sustainable management of the crop farming or cattle breeding processes, including creation and modernisation of irrigation infrastructure for effective watering of agricultural lands;
- creation and modernisation of infrastructure for agricultural use of waste water to minimise its environmental and climatic impact (in particular, the use of reclaimed water for post-recycling water consumption purposes);
- projects reducing pollutants in diffuse agricultural land effluents;
- projects based on development of zero-till technologies for the cultivation of agricultural lands;
- increased cultivation of perennial legumes to substitute other agricultural crops.

The EAEU member states are adapting their agricultural production to climate change, and ensuring sustainable development of the agricultural complex, focusing on organic agriculture, preservation and restoration of soil fertility, development of fishing and aquaculture, and precision agriculture.

In particular, the EAEU member states are establishing a common market, so they are expanding international co-operation to diversify production and ensure deep conversion of organic products. In late 2021, the EEC Council approved the draft roadmap for a EAEU common market for organic agricultural products; an international treaty is expected to be ready by the next stage of the process (EEC, 2021c). Besides, the EAEU is developing regulations for co-operation among its member states in preservation and restoration of soil fertility and precision agriculture technologies.

Precision agriculture is widely practiced in Europe, North and South America, the PRC, and some other countries. It involves variable-rate density seeding and fertiliser application in different areas of the field depending on their individual characteristics, boosting the effectiveness

of seeds, fertilisers, and pesticides, and fostering yields (RIA Novosti, 2022). The EAEU member states use a maximum of 1% of tilled lands in the production of organic products, with the highest percentage reported for Russia (0.2%) and lowest for Belarus (0.02%) (Akopyan, Lamanov, Romashkin, 2020). For comparison, about 1.5% of agricultural lands are used for organic production in the world, with the annual turnover of organic products exceeding \$130 billion and increasing by 10–15% each year.

Countries require economic incentives to encourage sustainable soil use technologies, in particular, conservation and resource-saving farming. This will preserve and restore soil fertility (Porfiryev, 2019).

Arid areas of the Eurasian region may drop in the productivity of agricultural lands due to climate change. To address the issue, affected countries may introduce correlated and integrated water management systems and water conservation technologies, increase the area of irrigated farming lands, and modernise irrigation and drainage infrastructure (Vinokurov, Ahunbaev, Usmanov et al., 2021). Institutional changes can boost effectiveness of water use in Central Asia, i.e., changes in existing regional water and energy complex regulation mechanisms (Vinokurov, Ahunbaev, Usmanov et al., 2022). Effective management of water resources drives the development of the region's agricultural and industrial complex and, accordingly, improves its food security.

The Eurasian region is developing new environmental standards. We recommend looking into agrarian carbon polygons in Russia. That pilot project was initiated by the Ministry of Agriculture and the Ministry of Science and Higher Education of Russia, and it sought to examine the impact of modern farming technologies on carbon sequestration (Ministry of Science and Higher Education of Russia, 2022). If a farm has a low-carbon footprint, the profitability of its products goes up by 30–50%, according to the estimates (Sber, 2021). The countries of the region are only setting foot on the long and arduous path of the green transformation of agriculture. It is not a losing battle, however; with available government programmes, interstate institutional decisions approved by the EAEU and the CIS, and the potential of national and international development banks, including the EDB, that large-scale long-term transformation may just come to fruition.

Urban Environment

Decarbonisation of cities should start with building operation-related emissions. Such emissions are the highest in Kyrgyzstan (37.5%), and Kazakhstan (16.3%). The main source of those emissions is the energy used to maintain the buildings. In the two countries listed, it is generated mostly by coal-fired power stations.

According to the EAEU model taxonomy, and subject to national green project standards or foreign compliance ratings, urban development involves the following key green transformation project types:

- creation of green infrastructure facilities around buildings, including multipurpose green areas; protection from floods (fences to prevent overstressing, pumping stations, dams, gates); street lighting; maintenance of waste collection sites around buildings;
- construction and modernisation of private residential houses and adjacent areas, including reduction of water consumption by at least 15%; application of RES; reduction of energy consumption by at least 15%, and use of energy-efficient technologies;
- erection of standalone and eco-friendly toilets for use by private houses, tourist camps, and small businesses;

- landscaping of the areas adjacent to buildings and structures with the use of ornamental plants;
- effective air conditioning, heat and power supply;
- effective lighting systems (including street lighting systems) and water supply systems.

Consequently, the best way to reduce greenhouse gas emissions is to improve the energy efficiency of residential buildings and use smart energy consumption technologies and green building standards. In the Eurasian region, Kazakhstan and Russia have the most advanced green building standards. For example, Kazakhstan uses OMIR, a system for environmental assessment of buildings developed according to international green building standards with the assistance of the World Green Building Council (WorldGBC) under the management of the Kazakhstan Green Building Council (KazGBC).⁶ The system rates projects based on their compliance with the requirements for advanced technologies and solutions in energy and water supply, waste treatment, territory management, green transport and materials, etc.



Box 4.
EDB Use Case: Smart Urban Development

In 2021, Kazakhstan, aided by the EDB, launched a project to create a “smart lighting” system using energy-saving technologies (automated management of street lighting and LED light fixtures). New lighting lines with a total length of 242.6 km were installed in 238 streets and along one highway (Atyrau–Aktobe). In the end, it reduced electricity consumption by street lighting by 80%, and maintenance costs by 36%. The project received the international Environmental Finance’s 2021 IMPACT Award.

Russia’s DOM.RF and the Ministry of Construction jointly developed the national green building standard for apartment blocks. It went into effect on 1 November 2022. If a building receives a green certificate, it will be provided with soft financing, and may be enrolled in green mortgage programmes to be launched in 2023 (Trojanova, 2023). Kyrgyzstan is also developing green construction standards with support from the EU (Abdyrasulova, 2022). Uzbekistan and the UNDP have been running an energy-efficient rural housing construction programme since 2017. In addition, the Government of Uzbekistan developed a green building standard and a living environment resilience rating system (Ministry of Construction of the Republic of Uzbekistan, 2019).

Belarus is working on a locally effective project where public amenities and residential houses are fitted with solar collectors to save heat during and between the heating seasons. There is also a pilot project to create an interactive energy efficiency map of residential buildings. It will detect energy-efficient solutions for residential houses and help ensure the effective and rational use of heat in residential apartment blocks (EEC, 2022).

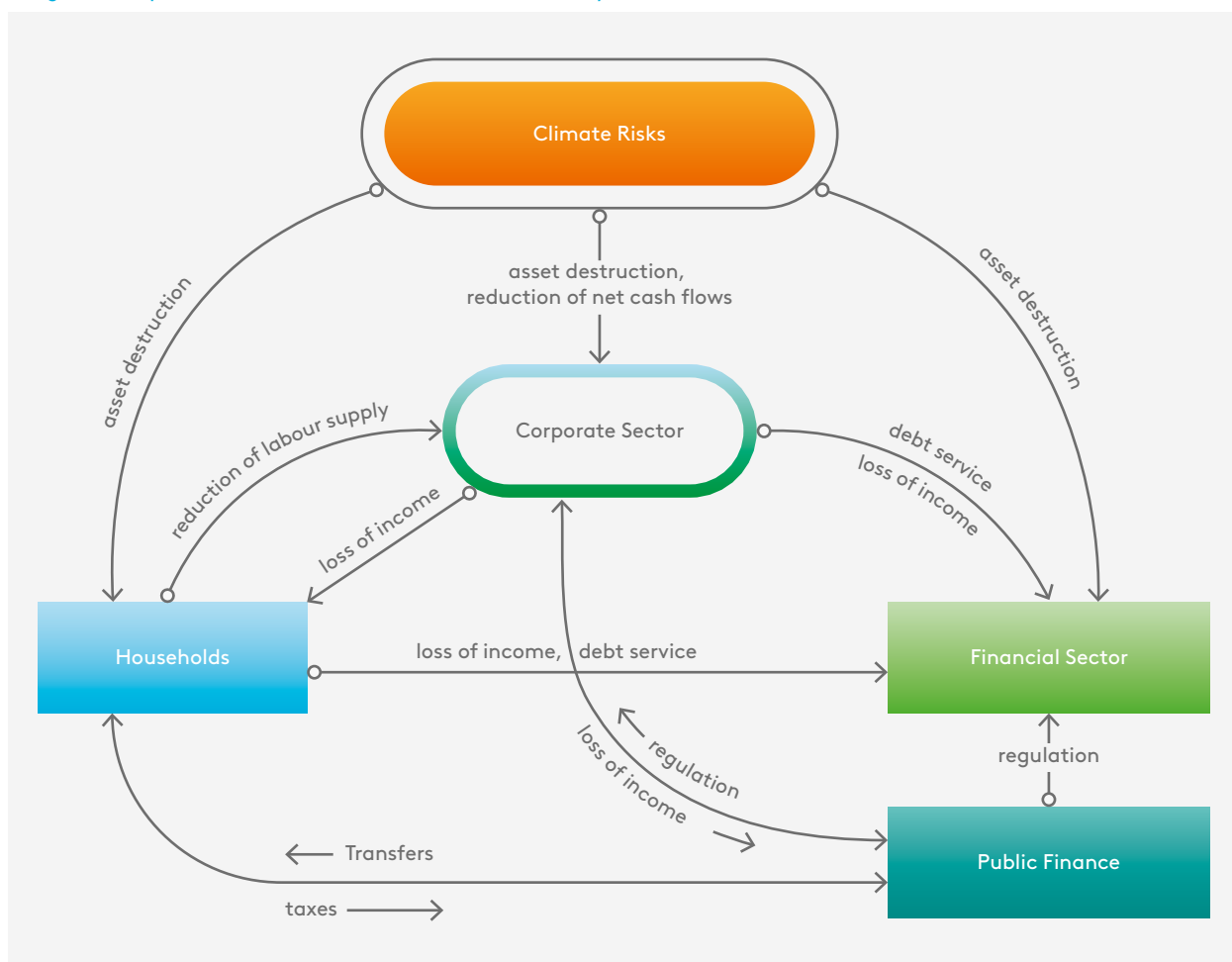
2.3 Risks Related to Global Climate Agenda in the Eurasian Region

Climate change and the related social and economic transformation expose the countries of the Eurasian region to certain risks (see Figure 11).

Physical risks may include natural disasters in the short term and accumulated climate change in the long term. According to the Atlas of Mortality and Economic Losses from Weather, Climate

⁶ KazGBC. OMIR Standards. Available at: <https://kazgbc.kz/certification/>

↓ Figure 11. Impact of Climate-Related Risks on the Economy



Source: Bank of Russia.

and Water Extremes (1970–2019), more than 11 thousand disasters occurred in the world, resulting in more than two million deaths and economic losses of \$3.64 trillion (Bank of Russia, 2022a).

The Federal Service for Hydrometeorology and Environmental Monitoring of Russia (Roshydromet) estimates climate warming in Russia to surpass global averages by far in the 21st century. Average annual temperatures are rising in all physical and geographical regions and federal districts. The Arctic Ocean coastline reports the highest rate of growth in average annual temperatures. The Roshydromet notes the skyrocketing economic losses from the hazardous weather and climate events and resulting human-made emergencies (Katsov, 2017). Up to 90% of the heaviest economic losses are caused by droughts, torrential rains, floods, freshets, strong winds, and hail.

Record-breaking air temperature rises, especially during summer, were reported in the countries of the region in 2021. According to the Intergovernmental Panel on Climate Change (IPCC) projections, average temperature in the Amu Darya basin will be 5°C higher than today, and by 2100, the number of days when the temperature is above 40°C will increase from the current 20 days per year to 60 days per year, while heavy downpours will become more frequent and intensive.⁷ The average annual air temperatures increased across the Eurasian region throughout 1976–2021, and in some countries reached peak values in 2021 (CIS Interstate Hydrometeorology Council, 2022). Alarming, summer climate normals were exceeded by 1.89°C in the west of Kazakhstan, by 2.55°C in the north of Uzbekistan, and by 1.56°C in the west of Tajikistan. Some months even saw air temperatures exceed the normals by as much as 10–20°C. Also, in 2021, there was a shortage of summer rainfall in all Central Asia countries, especially in Uzbekistan and in Mangystau Region of Kazakhstan which reported

⁷ IPCC WGI Interactive Atlas: Regional information. Available at: <https://interactive-atlas.ipcc.ch/permalink/oljClvjs>

only 30% of the average rainfall or, in some localities, no rainfall at all. The southern regions of Kyrgyzstan and Tajikistan are more vulnerable to floods, landslides, hail, and extensive soil erosion. In 2021, air temperature in Armenia exceeded the average by 2.1°C, while rainfall decreased drastically to 80% of the average. In Russia, climate anomalies stand out in winter, with Arctic area averages exceeded by 2°C. Belarus reported a summer air temperature anomaly in 2021, with the average exceeded by 2.5°C.

Central Asia is particularly vulnerable to adverse climate change consequences, such as the shortage of water resources, food security risks, and more frequent extreme weather events. Snow and glacier melting affects the region's water supply, and it is speeding up because of the rising temperatures. Along with evaporation, melting reduces water levels in water bodies. Limited water affects the region's agricultural sector, and increases the risk of conflicts over access to water resources. According to certain estimates, by 2050, water may decrease by 10–15% in the basins of the Syr Darya and the Amu Darya, two of the most important water sources in Central Asia (ADB, 2022a). Water shortages, more frequent droughts, and degradation of soil decrease the productivity of agricultural crops, which causes food security risks (Ismailov, 2023). According to a UNDP assessment of vulnerability of wheat production and range sheep production to climate change, spring wheat production in seven regions of Kazakhstan is expected to decrease by 13–37% by 2030, with direct economic losses in the sector amounting to ₸456.93 billion in 2019 prices. By 2050, wheat productivity will decrease by 20–49%, causing a gross yield drop estimated at up to ₸608.19 billion in 2019 prices. Kazakhstan is one of the largest wheat exporters, both in Central Asia and globally, so if it fails to introduce enough climate change adaptation measures, the entire region's food security is at risk (UNDP, 2020).

Transition period risks, or climate transition risks, arise with the transition to a low-carbon economy, including the steps taken by governments and regulators to prevent climate change. The main regulatory and legal drivers include introduction of public policies designed to mitigate the adverse impact of climate change, adoption of legislative requirements and restrictions (for example, the EU decision to phase out combustion engines for passenger cars from 2030), imposition of greenhouse gas emission taxes, introduction of more stringent environmental standards and climate reporting/climate risk assessment practices. The key technological driver is low-carbon technologies, including resource-saving and closed-loop technologies. The behavioural drivers translate into changes in consumer, counterparty, and investor preferences in favour of products and companies that do less damage to the environment (Bank of Russia, 2022a).

As the world transitions to green energy and countries adopt decarbonisation measures, fossil fuels gradually become a thing of the past, in particular, coal as the most carbon-intensive method of power generation. RES also begin to make profit. These factors reduce the demand for conventional energy resources, and hydrocarbon exporters find that their sales markets are declining. The IEA estimates the global demand for natural gas to increase by only 5% in 2021–2030 if the current energy policy continues (Bank of Russia, 2022a), and 75% of new global investment in the energy sector will be associated with green energy (Abdraimova, Antonov, 2023). Accordingly, brown carbon-intensive sectors of the economy may find that their funding dwindles or becomes more costly, putting their competitiveness and financial resilience at risk over the long term.

One of the best examples of a climate transition risk that may strongly affect the EAEU member states is the European Union's EU Carbon Border Adjustment Mechanism, or Carbon Border Tax (CBT) (see Section 1.2). CBAM-related costs to exporters will be significant. The Russian economy is under the EU sanctions, so under the baseline scenario, additional CBAM-related costs incurred by Russian companies may be as high as \$14.7 billion (only 15% down from February 2022), according to the Sberbank experts. Of that amount, steel exporters will pay \$6 billion, and aluminium exporters, \$5.6 billion. Under the best-case scenario, the costs go down to \$13 billion; under the worst-case scenario, they go up to \$17.7 billion

([Chugunov, 2022](#)). Following the Carbon Border Tax in 2026, Kazakhstan exporters will be losing up to \$250 million in revenues per year, with the metallurgy sector hit the most, according to the World Bank ([Abdraimova, Antonov, 2023](#)). CBT-related costs are anticipated at €25 million in Belarus, at €7 million in Uzbekistan and at €1 million in Armenia ([Sudakov, Lazaryan, Votinov, 2022](#)). With time, the CBAM may become the universal tool to galvanise the global green transition.

Be that as it may, physical risks and transition period risks need to be recorded, assessed, and projected, and stakeholders will have to adopt mitigation and adaptation measures. It will require significant investment in carbon footprint reduction, modernisation of equipment, technological innovations, and climate projects ([Bank of Russia, 2022a](#)).

3. GREEN TRANSITION IN EURASIAN REGION DEVELOPMENT STRATEGIES AND PROGRAMMES: BACKGROUND AND CO-OPERATION RESTRICTIONS

3.1 National Approaches to the Green Transformation

Over the last several years, the ESG regulatory activity in the Eurasian region has been on the rise. Even though the countries of the region are still behind their developed peers, most of them have drafted conceptual frameworks, identified core principles, and created minimum infrastructures to develop sustainable finance.

Some of the countries in the region announced their carbon neutrality commitments (see Figure 12). All countries have adopted Emissions Reduction and Climate Change Adaptation Action Plans. Carbon neutrality will be achieved by 2060 in Kazakhstan (estimated cost: \$666.5 billion) and Russia (estimated cost: up to ₸480 trillion, or about \$6.5 trillion); by 2050 in Kyrgyzstan

↓ Figure 12. Voluntary Commitments of the Countries of the Region on Greenhouse Gas Emissions and Transition to Carbon Neutrality

Country	Greenhouse Gas Emissions Target for 2030 vs 1990	Change in Greenhouse Gas Emissions: 2020 vs 1990*	Achievement of Carbon Neutrality
Armenia	↓ by 40%	↓ by 61.5% (2019)	2050
Belarus	↓ by 28–35%	↓ by 39%	—
Kazakhstan	↓ by 15% (by 25% with international support)	↓ by 11.1%	2060
Kyrgyzstan	↓ by 15.97% (by 43.62% with international support)	↓ by 40.4% (2019)	2050
Russia	↓ by 30%	↓ by 35.1%	2060
Tajikistan	↓ by 30–40% (by 40–50% with international financial and technical assistance)	—	—
Uzbekistan	↓ by 35% (vs 2010)	↑ by 6.7% in 1990–2017	2050**

Note: * Subject to land use, changes in land use and forest management. ** The target covers only electricity production. Sources: UNFCCC NDC Register, World Bank, Sber, EEC, calculations by EDB analysts

(estimated cost: about \$10 billion). Armenia plans to pledge to achieve carbon neutrality by 2050, while Uzbekistan intends to achieve carbon neutrality in the energy sector by 2050.

Russia has the following key ESG regulatory initiatives:

- *National Criteria (Taxonomy) of Green and Adaptation Projects and Verification System Requirements* ([Official Legal Information Internet Portal, 2021b](#)). The Climate Bonds Initiative endorsed the adoption of the taxonomy as consistent with “international best practices” ([Climate Bonds Initiative, 2021](#)).
- Latest amendments to *Regulations of the Bank of Russia “On Security Issuance Standards”* dealing with the issuance of ESG bonds (green, social, adaptation, sustainability-linked, climate transition bonds) ([Bank of Russia, 2022b](#)).
- Latest amendments to *MOEX Listing Rules* establishing the rules and requirements applicable to ESG bonds (green, social, national projects); a sustainable development sector was created in the exchange ([Moscow Exchange, 2023](#)).
- *Strategy for the Social and Economic Development of the Russian Federation with Low Greenhouse Gas Emission Levels* until 2050 adopted in October 2021. The Strategy defines the measures required to reduce greenhouse gas emissions to 70% of their 1990 level by 2030, subject to the maximum possible absorptive capacity of forests and other ecosystems, and sets forth the areas of, and measures to ensure, continued development with low greenhouse gas emissions until 2050. The Strategy calls for an integrated national system to monitor and forecast greenhouse gas emissions. The target scenario described in the Strategy will require decarbonisation investments of 1% of the GDP in 2022–2030, and 1.5–2% of the GDP in 2031–2050. Strategy implementation measures include the development of sustainable finance, such as green finance ([UNFCCC, 2021](#)).
- *Roadmap for the Implementation in Sakhalin Region of a Special Regulatory Experiment to Create Conditions Conducive to Deployment of Technologies Designed to Reduce GHG Emissions*. The purpose of the experiment is to achieve carbon neutrality in the region by 2025 with an experimental GHG emission trading scheme ([Ministry of Economic Development of the Russian Federation, 2020](#)).
- *Register of Carbon Units of the Russian Federation, in effect since September 2022* ([The Russian Government, 2022](#)). The first carbon unit auction was conducted (and the first deals executed) at Moscow Exchange at an average weighted selling price of ₺1 thousand per carbon unit ([AK&M Information Agency, 2022](#)).

The Russian taxonomy assigns transitional status to some areas and projects of green technological modernisation of carbon-intensive industries, and singles out nuclear energy and nuclear fuel without supplementary criteria. In addition, the Russian green taxonomy was expanded in 2022 to include projects in the following areas: production of rechargeable batteries and their components; production of electric heat pumps; capture and generation of energy from landfill gas; creation and modernisation of tidal power plants; cleaning, restoration, and recovery of water bodies; modernisation and repair of low-carbon gas transportation and distribution infrastructure ([Expert, 2022](#)).

Federal Law No. 296-FZ *On Reduction of Greenhouse Gas Emissions*, the country’s first climate law, went into effect at the beginning of 2022. Russia does not have mandatory non-financial reporting requirements, with one exception for some sectors: regulated entities (entities generating greenhouse gas emissions in excess of 150,000 tonnes of carbon dioxide per year) must submit annual reports on their greenhouse gas emissions. Those entities will have to report their emissions to the Ministry of Economic Development of Russia starting in 2023. In 2025, it will become mandatory for all entities with annual greenhouse gas emissions

of at least 50 kt CO₂e (Official Legal Information Internet Portal, 2021a). The laws of the Russian Federation do not benefit or incentivise the issuers of ESG debt instruments or their investors.⁸ The government also approved general rules for climate projects, in 2022, including climate-specific project criteria, project launch, and reporting (Geroeva, 2022).

Russia developed a project to establish a system for high-precision monitoring and disposal of climatically active gases in October 2022. The system will be used to forecast climate change and greenhouse gas emissions, collect information on absorptive capacity of natural ecosystems, and assess whether decarbonisation methods are economically feasible (Egorshева, 2022). In January 2023, the EEC discussed the possible expansion of that system's footprint to cover the entire territory of the EAEU.

Compared to the other countries of the region, Kazakhstan has a relatively mature ESG regulation system. The new *Environmental Code* went into effect in July 2021. It establishes the national taxonomy of green projects. The AIFC Green Finance Centre (which developed the draft green taxonomy for Kazakhstan) presented a draft social taxonomy in July 2022. If approved, it will identify the facilities to be financed with social bond proceeds.⁹ The *Environmental Code* also describes the structure of uniform carbon unit trading system. Carbon units have been traded at Kazakhstan exchanges since 2013 at an average price of \$1 per tonne. The quota trading system regulates about 40% of domestic carbon dioxide emissions in Kazakhstan generated by 225 of its largest enterprises (power engineering, central heating, mining and manufacturing industry), and annual emissions total more than 20 kt CO₂e. The system also includes a carbon tax; it does not, however, cover emissions by the smaller enterprises, the transport sector, and agriculture (REdiCAP, 2021).

In addition, Kazakhstan's National Entrepreneurship Development Project (2021–2025) adopted in 2021 includes government support measures for green financial instruments, including subsidisation of up to 50% of interest rates on green bonds and loans.¹⁰ Even though non-financial reporting in Kazakhstan is voluntary, the KASE introduced some ESG disclosures to be included by listed companies in their annual reports (KASE, 2022).

In February 2023, Kazakhstan approved the *Carbon Neutrality Strategy 2060* to adapt the economy of the Republic of Kazakhstan to global climate trends, for example, to introduce the Carbon Border Tax, promote ESG principles, attract green investments, ensure energy efficient production, electrification, etc. Pursuant to the Strategy, minimising fossil fuel combustion will reduce most greenhouse gas emissions in the energy sector. That will require a massive energy efficiency improvement in energy transmission and distribution and final demand regulation, and transition to non-fossil fuels in primary energy supplies. Kazakhstan will need to invest \$666.5 billion in low-carbon technologies for critical sectors, including electricity and heat generation (\$305 billion), transport (\$167 billion), mining and manufacturing industry (\$65 billion), housing and public utilities (\$57 billion), and forest management (\$49 billion).¹¹

Other countries of the Eurasian region are only breaking ground on developing sustainable regulations. Belarus established the *National Action Plan for Green Economy Development (2021–2025)* and the *National Strategy for Sustainable Social and Economic Development until 2030*. The Green Finance Work Team under the Ministry of Finance set out criteria for green and adaptation projects and related verification requirements, and is looking to encourage the development of green finance (Ministry of Finance of the Republic of Belarus, 2022b). The Belarusian Currency and Stock Exchange (BCSE) joined the Sustainability Stock Exchanges Initiative, but it does not have a sustainability bonds segment, or a list of ESG reporting requirements for the companies that seek listing at the exchange.¹²

⁸ For example, application of reduced risk weights to green bonds.

⁹ Sber. Kazakhstan: ESG Case File. Available at: https://sber.pro/digital/uploads/2022/09/ESG_Kazakhstan_A3_65b0d19d82.pdf

¹⁰ Sber. Kazakhstan: ESG Case File. Available at: https://sber.pro/digital/uploads/2022/09/ESG_Kazakhstan_A3_65b0d19d82.pdf

¹¹ Sber. Kazakhstan: ESG Case File. Available at: https://sber.pro/digital/uploads/2022/09/ESG_Kazakhstan_A3_65b0d19d82.pdf

¹² Sustainable Stock Exchanges Initiative—Belarusian Currency and Stock Exchange. Available at: <https://sseinitiative.org/stock-exchange/bcse/>.

Armenia introduced the *Strategic Long-Term Development Programme (2014–2025)* and included climate change mitigation targets. The Government of Armenia also approved the *National Action Plan for Adaptation to Climate Change (2021–2025)* in 2021 and listed stimulation of green finance as one of its objectives. The country is developing the *National Taxonomy of Green Projects*.¹³ Armenia Securities Exchange (AMX) joined the Sustainability Stock Exchanges Initiative,¹⁴ but it does not have a sustainability bonds segment, or a list of ESG reporting requirements for the companies that seek listing at the exchange.¹⁵

Kyrgyzstan approved policy documents (for example, the *National Programme for the Development of the Kyrgyz Republic until 2026*, and the *Green Economy Programme (2019–2023)*) to define sustainable development priorities, focusing on higher living standards and economic growth. Those objectives will require large-scale development of hydropower engineering and electric transport, strong organic production to be prioritised in the agricultural sector, etc.

The EDB and the AIFC Green Finance Centre helped establish GFC Bishkek in 2022 to promote sustainable finance in the country (EDB, 2022). The Kyrgyz Stock Exchange (KSE) joined the Sustainability Stock Exchanges Initiative, but it does not have a sustainability bonds segment, or a list of ESG reporting requirements for the companies that seek listing at the exchange.¹⁶ Kyrgyzstan is about to adopt a taxonomy of sustainable projects (AIFC Green Finance Centre, 2022). The country has plans to achieve carbon neutrality by 2050, so it will focus on developing a zero-carbon power industry, building hydro power plants, and improving energy efficiency of the economy.

Kyrgyzstan expects to adopt a National Monitoring, Assessment and Verification System by 2025 to see whether NDC mitigation and adaptation measures are effective, and control their funding. In addition, at COP26 in Glasgow, Kyrgyzstan proposed to provide separate targeted funding for mountain countries in need, and create a UN special targeted programme fund for adaptation to climate change, focusing on conservation of glaciers, forests, and biodiversity, preparedness for natural disasters, and social and economic support for mountain communities. Notably, Kyrgyzstan initiated adoption of the resolution *Nature Knows No Borders: Transboundary Co-operation – a Key Factor for Biodiversity Conservation, Restoration, and Sustainable Use* at the 75th section of the UN General Assembly, and the resolution *Strengthening Mountain Glacier Monitoring and Research* at the 41st session of the UNESCO General Conference. In October 2021, the President of the Kyrgyz Republic approved a decree adopting the National Development Programme until 2026 to promote green economy principles and green finance tools, establish a green finance corporation, etc.¹⁷

Tajikistan developed policy documents for sustainable development (for example, the *National Development Strategy until 2030* based on the SDGs, the *National Strategy for the Adaptation to Climate Change until 2030*). By 2030, the Government of the Kyrgyz Republic plans to develop rules and regulations for a GHG monitoring system and a carbon unit trading scheme,¹⁸ and create a carbon credits market. In fact, Tajikistan declared 2025 the International Year of Glaciers' Preservation, and proposed to establish an International Glaciers Preservation Fund.

Uzbekistan has also adopted, and is developing, new green policy documents, including the *Strategy for the Transition of the Republic of Uzbekistan to the Green Economy (2019–2030)* and the *National Sustainable Development Goals and Objectives until 2030* to support the green transformation of the key sectors of the economy. The Uzbekistan Development Strategy (2022–2026) addresses intensive development of hydrogen power engineering with the support of numerous organisations, including the Green Investment Council.

¹³ Sber. Armenia: ESG Case File. Available at: https://sber.pro/uploads/2022/11/ESG_Armenia_A3_1411_508a99ba9d.pdf.

¹⁴ UN Partnership Program co-implemented by the UNCTAD, the UN Global Compact, the UNEP Finance Initiative, and PRI.

¹⁵ Sustainable Stock Exchanges Initiative—Armenia Securities Exchange. Available at: <https://sseinitiative.org/stock-exchange/amx/>.

¹⁶ Sustainable Stock Exchanges Initiative—Kyrgyz Stock Exchange. Available at: <https://sseinitiative.org/stock-exchange/kse/>.

¹⁷ Sber. Kyrgyzstan: ESG Case File. Available at: https://sber.pro/digital/uploads/2022/09/ESG_Kyrgyzstan_A3_482aa3e05b.pdf

¹⁸ Sber. Tajikistan: ESG Case File. Available at: https://sber.pro/digital/uploads/2022/11/ESG_tajikistan_2211_82c1915eaa.pdf

The country is also going through a UNDP-assisted fiscal reform to support the transition to a green economy. It is developing the green budgeting methodology, reorganising green taxes and subsidies, and introducing green and sustainable procurement principles.¹⁹ Finally, Uzbekistan initiated the Resolution declaring the Aral Sea Region a zone of ecological innovations and technologies, and it was adopted by the UN General Assembly on 18 May 2021. The country also proposed to launch the Multi-Partner Human Security Trust Fund for the Aral Sea Region, subject to the positions of the parties.

Sustainable Finance Market Development Trends

Russia is the undisputed leader and pacemaker in the relatively small ESG market of the Eurasian region. In 2021, the sustainable development sector of Moscow Exchange (MOEX) listing green, social, and adaptation bonds reached a record ₺126.5 billion²⁰ (2016: ₺3.3 billion²¹; 2020: ₺11.5 billion²²) (see [Figure 13](#))²³.

Market players began to show more interest in the ESG agenda in 2021, expecting potential regulatory incentives. The next year, 2022, dashed those expectation, with the market strongly destabilised by external and internal macroeconomic and geopolitical shocks. New ESG bond issues in the Russian market totalled about ₺100 billion²⁴ in 2022. The market is dominated by large issuers, and some are partially owned by the state. ACRA expects that total issuance will be comparable with the 2022 level in 2023 ([ACRA, 2022](#)).

The President of Kazakhstan stated that in 2021 the market had increased approximately by a factor of 500.²⁵ According to the KASE, ESG bonds were issued in Kazakhstan in 2020 (\$33.2 million), 2021 (\$227.9 million), and 2022 (\$275.3 million). The Asian Development Bank and the Eurasian Development Bank were the largest issuers.²⁶ In April 2022, the Agency of the Republic of Kazakhstan for the Regulation and Development of the Financial Market signed a Co-operation Agreement with the International Finance Corporation to work together on ESG standards and promote green finance in Kazakhstan ([Agency of the Republic of Kazakhstan for the Regulation and Development of the Financial Market, 2022](#)). Earlier, in November 2021, the European Union and the UN Development Programme in Kazakhstan announced the launch of a new SDG knowledge sharing platform for Central Asia countries to monitor and adjust the region's key national social and economic programmes based on SDG attainment and finance monitoring ([Delegation of the European Union to the Republic of Kazakhstan, 2021](#)).

The sustainable finance market in Belarus is also evolving, although the ESG drivers do not seem to inspire Belarusian stakeholders. The Ministry of Finance assures that the required infrastructure is already in place, but there were very few such instruments in circulation at the end of 2022. On 7 December 2022, the Ministry of Finance announced the issue of sovereign green bonds for ₺5 billion²⁷ under the Conceptual Framework for the Government Green Bonds of the Republic of Belarus ([Ministry of Finance of the Republic of Belarus, 2022a](#); [Belmir.by, 2022](#)).

The Armenian ESG bond market is currently represented by two green bond issues placed by Ameriabank in 2020 (€42 million) and 2022 (\$8 million and ₺3 billion²⁸) ([Ameriabank, 2022](#)). The Armenian Unibank received a second expert opinion on its Green Bonds Concept in October 2022, and will soon debut its bond issue ([Banks.am, 2022](#)). The Kyrgyz Stock Exchange estimates the value of the ESG finance market in Kyrgyzstan to total \$330 thousand.

¹⁹ Sber. Uzbekistan: ESG Case File. Available at: https://sber.pro/digital/uploads/2022/09/ESG_Uzbekistan_A3_2_718a6609cc.pdf

²⁰ Equivalent to approximately \$1.7 billion (average nominal exchange rate for 2021 is ₺73.65 per \$1).

²¹ Equivalent to approximately \$49 million (average nominal exchange rate for 2016 is ₺66.9 per \$1).

²² Equivalent to approximately \$159.8 million (average nominal exchange rate for 2020 is ₺71.94 per \$1).

²³ Moscow Exchange. List of securities included in the sustainable development sector of Moscow Exchange. Available at: <https://www.moex.com/s3019>

²⁴ Equivalent to approximately \$1.5 billion (average nominal exchange rate for 2022 is ₺67.46 per \$1).

²⁵ The high growth rate is attributable primarily to the low base effect.

²⁶ Sber. Kazakhstan: ESG Case File. Available at: https://sber.pro/digital/uploads/2022/09/ESG_Kazakhstan_A3_65b0d19d82.pdf

²⁷ Equivalent to approximately \$70.1 million (exchange rate as of 29 December 2022 is ₺71.32 per \$1).

²⁸ Equivalent to approximately \$6.4 million (exchange rate as of 22 April 2022 is ₺467.28 per \$1)

↓ Figure 13. Impact of Climate-Related Risks on the Economy

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



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



Russia

- MOEX-based ESG bonds issuance in 2020–2022 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



Kazakhstan

- Overall ESG bonds issuance reached \$536 million in 2020–2022, 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



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

* Total ESG bonds issuance in 2020–2022.

Sources: KASE, KSE, Ministry of Finance of the Republic of Belarus, MOEX, RBC, Sberbank, EDB.

Tajikistan does not have ESG financing, with the exception of green, social, and sustainable loans and grants provided by international development institutions.²⁹

All countries of the Eurasian region have generally defined the benchmarks for the transition to green growth, and developed national laws and regulations in sustainable development, adaptation to climate change, green projects, clean technologies, etc. (see [Attachment 3](#)). Some countries are still drafting and discussing such documents, but all seven countries of the region are pursuing the green trend.

²⁹ Sber. Tajikistan: ESG Case File. Available at: https://sber.pro/digital/uploads/2022/11/ESG_tajikistan_2211_82c1915eaa.pdf

Box 5. **Green Subsidisation Instruments in the Eurasian Region**

To promote the sustainable finance market, governments can introduce public support measures and various incentives to boost investor demand and whet stakeholder companies' appetite for green projects. The laws in effect in the Eurasian region do not incentivise or benefit the issuers of ESG debt instruments or their investors. These measures, however, are on the public agenda. National market players have been expecting a slate of support measures, including subsidised coupon payments on green bonds/subsidised interest payments on green loans, tax benefits for investors, lower risk weights for the green bondholders, and reduced reserve requirements, but so far none of those measures have been introduced.

The Russian regulator approved subsidies to partially reimburse coupon payments on green bonds and interest payments on green loans where the proceeds of such bonds or loans are used to finance investment in the best available technologies, but that instrument enjoys only limited demand.

Kazakhstan's companies engaged in green projects can count on subsidisation of the coupon rate on green bonds for up to 6% of the base rate set by the National Bank of the Republic of Kazakhstan increased by 5% for bonds, and by the interest rate on green project loans not exceeding the base rate set by the National Bank of the Republic of Kazakhstan increased by 5%, of which 13.75% are subsidised by the state, and the difference is paid by the entrepreneur (LIS "Adilet", 2019).

The Eurasian region can use cash disbursements from special funds, including subsidies and grants provided by international climate finance institutions, to promote investments in green projects. The Green Climate Fund is an excellent example.

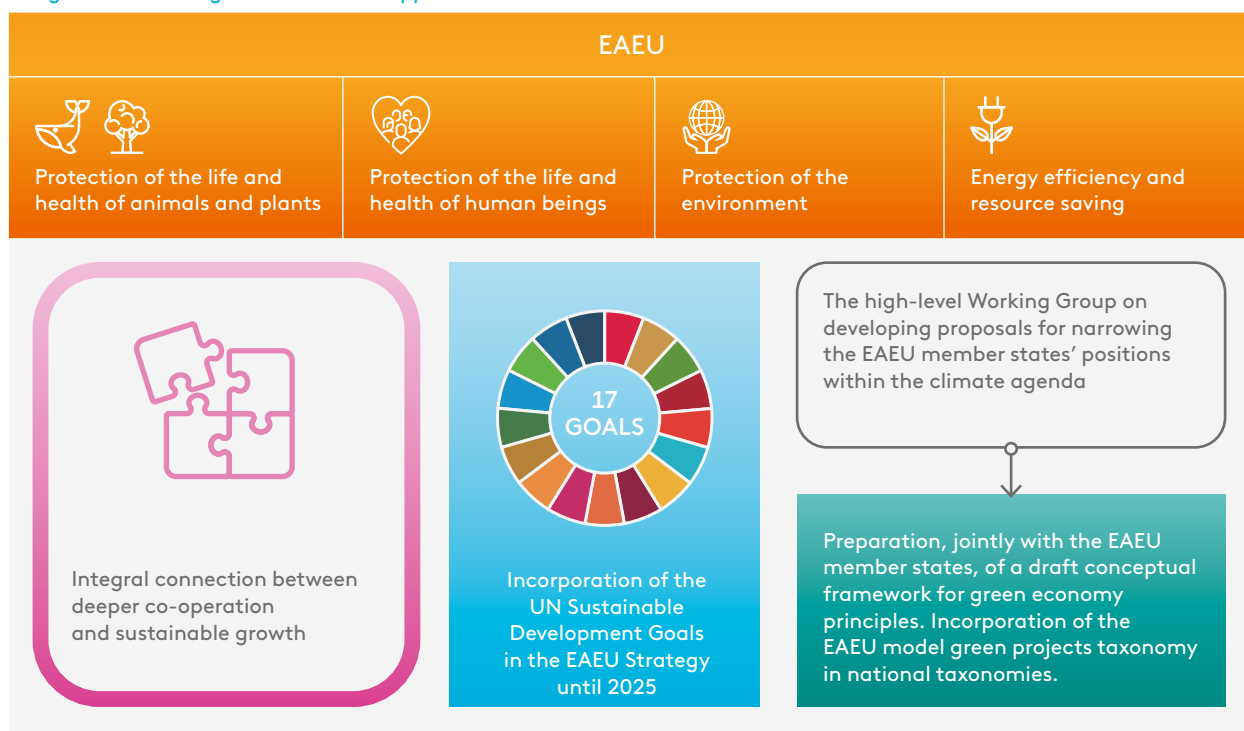
The national governments should also take additional measures, for example, modify accounting rules for ESG debt instruments to provide capital relief, and apply investor tax benefits, such as regulatory and tax incentives and subsidised interest rates (coupon rates).

3.2 Perspective of the Eurasian Green Agenda

The green transformation of the EAEU can make the transition to a new technological and economic paradigm. It can also help the EAEU member states access the low-carbon sustainable development path and enjoy low greenhouse gas emissions, a scientifically accredited environmental management system, and new green and industrial technologies (see [Figure 14](#)).

Strategic Development Areas of the Eurasian Economic Integration until 2025 is a policy document approved by the Supreme Eurasian Economic Council in December 2020. It defines the benchmarks for expanded economic co-operation in green technologies and environmental protection and breaks down certain measures stage-by-stage, for example, promoting smart energy-efficient technologies, restricting importation and production of disposable plastic, sharing best practices, and collaborating in energy saving, energy efficiency, RES, and protection of the environment. The policy document also involves EDB tools incentivising the use of energy- and resource-saving technologies. Finally, it explains why the Union member states will benefit from a conceptual framework for green economy principles. In April 2021, the EEC Council approved the Action Plan to introduce the policy document (EEC, 2021d).

↓ Figure 14. Green Agenda Issues and Approaches in the EAEU



Source: EDB

The EEC believes that the EAEU needs to develop its own climate agenda following mutual recognition of the criteria for green and adaptation project categories, national carbon rules, methods and methodologies for the measurement and assessment of carbon footprints and conversion of carbon units. A High-Level Work Group was established accordingly in August 2021 to making sure the EAEU member states are on the same page when it comes to climate agenda positions (EEC, 2021b). The High-Level Work Group will see that all its members engage in consistent decarbonisation activities and have uniform policies and hydrocarbon regulation systems.

The High-Level Work Group was behind the development and adoption of the EAEU model taxonomy in January 2023. That document contains the recommended green project criteria for the EAEU member states. Kazakhstan's and Russia's entities developed those together, namely, the Green Finance Centre of the Astana International Financial Centre and the State Corporation VEB.RF (EEC, 2023b). In addition, both already had experience developing green taxonomies in their respective countries. When developing green project criteria, the authors followed the most stringent requirements featured in the taxonomies for Russia and Kazakhstan or, in certain cases, the requirements consistent with the current international benchmarks (Basova, Sosnin, 2023). The document will stimulate alignment of approaches to systemic development of green finance instruments in the EAEU, promote joint green projects, develop and upgrade national taxonomies of the EAEU member states, and ensure freedom of capital movement.

The first EAEU green agenda (roadmap) block includes measures to establish the Bank of Climate Technologies and Digital Initiatives³⁰ within the EEC. This Bank will gradually collect information on green projects with the potential to scale up across the EAEU (see Attachment 4). Green Eurasia will also support green projects. It is an international climate contest organised together by the EEC and the Agency for Strategic Initiatives to identify effective industry practices in climate mitigation and adaptation, as well as other climate practices to support sustainable development of the EAEU member states.³¹

³⁰ Eurasian Economic Commission. Bank of Climate Technologies and Digital Initiatives. Available at: <https://eec.eaeunion.org/commission/department/dotp/klimaticheskaya-povestka/bank/>

³¹ Green Eurasia International Climate Competition. Available at: <https://greeneurasia.asi.ru/>

The EAEU member states are at different stages of economic development; they also have different disposable financial resources and production/technological potentials. This may well deter the countries from transitioning to a green economy. If the EAEU member states work together, they might lower the cost of technological modernisation of their economies, both internally- and externally-wise. The internal agenda will prevent any trade barriers in the EAEU domestic market. If any EAEU member state applies more stringent environmental requirements, and the other member states do not follow suit, it may destabilise the business and distort trade and investment flows among the EAEU member states. The external agenda should focus on promoting the interests of the EAEU member states among international organisations.

To synchronise the green agenda activities of the member states, the EAEU supranational policy may involve technical regulations, uniform trade policies and customs tariffs, EAEU common markets, and Eurasian development strategies and programmes.

The EAEU member states will have their work cut out to complete the transition from the commodity-based resource-intensive development to innovative resource efficiency. In addition to the development of common regulations and exchange of energy-saving and RES best practices, the EAEU member states are considering using hydrogen in metallurgy, cement industry, and transport.

The EAEU has a body coordinating green agenda activities called the Interstate Ecological Council of the CIS Member States, established after the countries approved the *Agreement on Co-operation of the CIS Member States in the Area of Environmental Protection* dated 31 May 2013. It is also supposed to align approaches to, and harmonise national laws in protection of the environment and sharing of best practices in green technology (CIS Executive Committee, 2022). It is similar to the *Conceptual Framework for the Co-operation of the CIS Member States in the Area of Utilisation of Renewable Energy Sources* and the related *Priority Implementation Action Plan*. To align their national laws, the CIS member states adopted model codes, including the Forest Code, the Water Code, the Land Code, the Environmental Code, and the Subsoil Assets Management Code (CIS Internet Portal, 2022b). Model laws show that the CIS member approach environmental issues similarly, for example, laws *On Environmental Safety*, *On Environmental Disaster Zones*, *On Environmental Damage Assessment*, *On Environmental Tourism*, *On Liquidation of Accumulated Environmental Damage (Harm)*, *On Environmental Safety of Pipeline Transportation of Petroleum Products*, *On State Information System in the Area of Environmental Protection*, *Environmental Management*, and *Environmental Safety*, and many others, the *Recommendations on the Development of Environmental Policy and the Recommendations on the Organisation of National Environmental Safety Centres*.

The *Strategy for the Economic Development of the Commonwealth of Independent States until 2030* features multiple items on the climate agenda, for example, developing small hydropower facilities, using alternative motor fuels and non-conventional and renewable energy sources, manufacturing green equipment at enterprises, developing innovative power engineering and state-of-the-art energy technologies. The *Conceptual Framework for the Interregional and Near-Border Co-operation until 2030* targets effective, rational, and safe use of natural resources and anti-climate change measures. The *Strategy for the Development of Co-operation of the CIS Member States in the Area of Tourism (2012–2030)* focuses on the development of green tourist routes and agroecotourism. It also states that the other areas of development need to minimise their negative environmental and ecological impacts. The CIS countries agreed to prioritise technological solutions for the environment, including resource recovery, resource saving, and waste management solutions in their co-operation, in line with the *Interstate Programme for the Innovative Co-operation of the CIS Member States until 2030*.

Finally, the countries of the Eurasian region are dealing with environmental and climate challenges under the Shanghai Co-operation Organisation (SCO), and the key areas of such intensive co-operation are recorded in the *Development Strategy of the Shanghai Co-operation*

Organisation until 2025. The SCO programmes develop smart tourism, counter climate change, preserve biodiversity, and create a low-carbon economy, including the *Conceptual Framework for the Co-operation in the Area of Protection of the Environment and the SCO Green Belt Programme*. These will help share ecological information, promote inclusive approaches to social development, and foster a green transformation of the member economies. The SCO invites a global conversation on environmental protection, new green technologies, and an increased share of the green economy to attract investment capital and funding for joint projects and programmes (Rossiyskaya gazeta, 2022).

The entire continent is increasingly eager to co-operate under the SCO: the latest meeting of the Council of the Heads of States of the SCO Member States in September 2022 brought together the leaders of Azerbaijan, Belarus, India, Iran, Kazakhstan, China, Kyrgyzstan, Mongolia, Pakistan, Russia, Tajikistan, Turkmenistan, and Turkey. There are more and more countries accorded the status of SCO dialogue partners.

This regulatory environment covers numerous climatic and environmental matters in the EAEU, the CIS, and the SCO. The mere fact of its existence proves that the green agenda is now reshaping politics and gaining track in all interstate associations of the countries of the Eurasian region in addition to their national plans and strategies.

The increasingly active dialogue and co-operation between the EAEU, the CIS, and the SCO have set the stage for all participating countries and institutions to achieve the Sustainable Development Goals together. This co-operation comes in multiple forums, for example, co-operation under appropriate memoranda and the Greater Eurasian Partnership open for other associations. To achieve the sustainable goals, the countries will have to make sure they use consistent methodologies for the monitoring and registration of greenhouse gas emissions and the national green project taxonomies. Working together (sharing experience, best practices, and technological innovations) will avoid excessive regulatory costs and internal trade barriers, and deepen the economic integration in accordance with the green economy principles.

To coordinate the environment and climate interests and policies of the countries of the Eurasian region, we recommend developing an umbrella action programme; let us call it the Eurasian Green Agenda. They can make it a platform to develop and expand the regional green agenda. Individual stakeholder countries could become involved in the relevant modules and work streams of such regional action programme in line with their capabilities and interests.

Hypothetically, the concept of the *Eurasian Green Agenda* could be part of the High-Level Work Group on alignment of climate agenda positions of the EAEU member states, provided that they develop a roadmap. Going forward, it could invite the EAEU observer countries and other countries and associations that are parties to free trade agreements, trade and economic co-operation agreements, memoranda on mutual understanding concluded with the EAEU, etc. Such platform could represent the shared interest of the Eurasian region's countries and make a more compelling case at the international climate regulation forums.

Conclusions and Green Agenda Advancement Proposals for the Eurasian Region

1. The green transformation is important for the Eurasian countries. It makes their national economies more competitive globally over the short, middle, and long term, ensures the well-being of their populations, and preserves the natural resources and ecosystems of the region.
2. Reducing the carbon footprint requires massive investments, both public and private. The Eurasian countries will introduce more green projects, and their significance will be ever-increasing. Conventional investment projects will have to meet the ESG criteria more often than not. International development banks can drive progress because they have extensive assessment toolkits and rich track records of green project funding.
3. The international organisations operating in the EAEU, including the Eurasian Economic Commission and the Eurasian Development Bank, call for regional integration and attainment of the SDGs and the Paris Agreement goals in the EAEU and the CIS. Regional economic integration helps introduce climate policies and adapt global best practices, standards, and technologies. All regional international institutions should promote common green economy principles in the Eurasian region and joint green and adaptation projects.
4. In the middle term, the countries of the region need to catch up in energy transition with the leading economies, primarily the EU and the US. They can, for example, follow international best practices and technologies. To improve competitiveness, the countries of the Eurasian region should look to the leading economies for scale and rate of decarbonisation research and follow suit in their green transformation.
5. The countries of the Eurasian region can potentially have very efficient regional energy- and water-saving policies in place. They can improve nature conservation, monitor the state and use of their water and energy resources, subsoil assets, land, and air, protect and expand biodiversity. That is why the EAEU member states could work together to record, monitor, and forecast climate risks, adapt and apply international GHG assessment practices and standards.
6. The UNFCCC Conferences are a great opportunity for the countries of the Eurasian region because they can share their ideas and discuss even conflicting views, address all stakeholders, and call attention to issues that tend to be overlooked. The voices of individual countries of the region are very likely to be drowned out globally, especially when it comes to small economies. Consequently, it makes sense for the countries of the region to promote their common interests at the UNFCCC and other international climate regulation forums on behalf of the entire region, and not individual countries.

7. Coordination will avoid excessive regulatory costs and internal trade barriers, and deepen co-operation between the countries in accordance with the green economy principles. We recommend introducing the concept of the Eurasian Green Agenda within the EAEU and the Greater Eurasian Partnership. This action programme is supposed to be flexible and adapt to the interests and capacities of individual countries, covering the following work streams:

(1) make the most of the natural advantages that the Eurasian countries have in hydro, nuclear, and solar power generation, railway electrification, intensive afforestation, etc.; collaborate and co-operate accordingly to benefit in the long term;

(2) create a common carbon regulation system within the EAEU, i.e., make sure that the countries have consistent greenhouse gas emissions monitoring and recording methodologies, national taxonomies, green project methodologies and related technical regulations; establish a common carbon unit registration and circulation system; impose an internal carbon tax, and further create a common greenhouse gas emissions trading scheme;

(3) provide government support and encourage the green transformation of individual enterprises in various sectors of the economy; attract investments in green projects, in particular, through MDB-financed projects;

(4) develop common regulatory standards in sustainable finance (GSS+), in particular, harmonise national regulatory frameworks and offer regulatory and tax incentives and interest rate (coupon rate) subsidies, thus stimulating investor appetite for green bonds, subject to MDB expertise, EU and ASEAN experience, the EAEU model taxonomy, and ESG national and international practices;

(5) develop industry-specific Eurasian low-carbon development programmes (Energy, Transport, Industry, Agriculture, Urban Development); make sure common markets for energy resources and transport services within the EAEU comply with climate commitments; expand industrial co-operation and R&D efforts in green technologies;

(6) coordinate the approaches of the countries within the international platforms and voluntary climate commitments.

The proposed concept of the Eurasian Green Agenda could be used as the main platform for coordinated development of the green agenda nationally, regionally, and continentally within the Greater Eurasian Partnership. This will bolster the position and role of the Eurasian region on the global green agenda.

Attachment 1. The 26th and 27th UNFCCC Conferences of the Parties: Key Outcomes

The 26th UNFCCC Conference of the Parties, Glasgow, 2021³²

The Parties agreed to reduce global carbon dioxide emissions by 45% by 2030 from the 2010 level and to net zero around mid-century in order to keep the warming below 1.5°C. However, by the end of COP26, many countries insisted on relaxing their climate pledges.

Twenty-three countries pledged to reduce the use of coal-fired power stations and move to clean technologies, as well as accelerate coal phase-out (with the exception of India and China which insisted on reduction instead of phase-out) and discontinue the issue of new permits for coal power generation.

More than one hundred countries (where 85% of the world's forests are situated) agreed to end or reduce deforestation in their regions, and use forests as a critical tool to combat the climate crises. About one hundred countries supported the pledge to cut methane emissions by 30% by 2030. However, the main polluter countries (China, India) refused to join that pledge.

The COP26 participants created the Glasgow Financial Alliance for Net Zero (GFANZ). It was joined by more than 450 companies from 45 countries of the world, including large banks, insurance and audit companies, pension funds, rating agencies, and stock exchanges. Total assets owned by the participants of that initiative are valued at \$130 trillion (40% of total global assets). In addition, more than 40 countries, including the UK, Poland, South Korea, and Vietnam, issued a Global Coal to Clean Power Transition Statement, where they committed to phasing out coal energy in the 2030s in the major economies, or in the 2040s across the world, and discontinue public funding of new coal-fired power stations.

A Race to Zero bank alliance of 43 financial institutions from 23 countries of the world was created to promote transition to clean energy. Total capital of the members of the alliance is estimated at \$28.5 trillion.

Preservation of forests became another key topic of the summit. According to the UN, about 420 million hectares of forests disappeared from the planet over the last 30 years. That is more than the entire territory of India. Deforestation continues at the rate of 1.6 million hectares per year. More than one hundred countries of the world, including Russia, Brazil, the US, Indonesia, and others came to an agreement to stop deforestation by 2030. Forest preservation and restoration programmes will receive \$20 billion of public and private funding.

³² Based on [Vikulova, 2021](#); [UN Climate Change Conference UK 2021](#); [EN+, 2021](#).

The 27th UNFCCC Conference of the Parties, Sharm El Sheikh, 2022

Although the COP27 delegates reaffirmed their commitment to limit the global temperature increase to 1.5°C above pre-industrial levels, the key decisions approved at the summit did not increase the ambition of the UNFCCC Parties to reduce greenhouse gas emissions, nor did they suggest any new steps to ensure the attainment of that goal.

India and more than 80 other countries tended to use the language calling for a “phasing out” of all types of fossil fuel—not only coal, as stated in the COP26 resolutions, but also oil and gas. According to some sources, those efforts were blocked by the major oil producers (such as Canada and Saudi Arabia) and China. The proposal to ensure a peak in global emissions by 2025 was also declined.

A number of important conclusions were made after two weeks of negotiations with the participation of almost 200 countries:

1. **Historic “loss and damage” agreement.** A landmark deal was made to establish a fund for responding to loss and damage. The fund will finance the most vulnerable developing countries to respond to the loss and damage caused by the adverse effects of climate change. There is still no final decision on the total amount of the fund; the agreement created a transitional committee of representatives from 24 countries to determine how the fund will operate, which countries and financial institutions are to make contributions to the fund, and where the money should come from. The members of the Climate Vulnerable Forum previously cited the figure of \$290–580 billion—according to some research, this will be the amount of annual damage by 2030.
2. **Call to align the global financial architecture with the climate goals.** The proposed reform is designed to adjust the mandates of multilateral development banks and international financial institutions to maximise investment in energy transition and climate change adaptation projects. The final resolution states that RES will call for investments of about \$4 trillion per year until 2030 to enable net zero emissions by 2050, and maintains that the global transition to a low-carbon economy will require a massive capital inflow of at least \$4–6 trillion per year.
3. **Launch of the Mitigation Work Programme 2030.** COP27 made considerable mitigation progress. The idea was to guarantee that all countries set clear emission reduction goals, plans, and metrics in line with the progress in the attainment of the climate goals. Previously, individual national pledges had not followed any common standards, as countries had used different criteria and initial conditions to define their goals. Without a common system, the pledges may not actually reduce the emissions.
4. **Outlook for voluntary carbon markets.** At COP27, the countries agreed to develop rules to govern cross-border trade in carbon units. That agreement creates a two-tier carbon market with clear guidelines as to who buys carbon credits and for what purposes, and introduces the so-called “mitigation contributions”. Even though the key elements of carbon markets have been defined, debates will continue at COP28 in 2023 or later. For example, experts warn that no double accounting should be used in circulation of carbon units.
5. **New endorsements of the Global Methane Pledge.** At COP26 in Glasgow, 103 countries acceded to the Global Methane Pledge, and after COP27, 150 countries made a commitment to reduce emissions of that extremely powerful greenhouse gas by 30% by the end of the decade. Although China, the world’s largest methane producer, did not

accede to the Global Methane Pledge, its representatives did mention a draft strategy to reduce methane emissions in that country.

6. COP27 focused primarily on the problems of African and small island nations, but it also discussed the **impact of the climate crisis on water supply in Central Asia**. The region is vulnerable to adverse climate change impacts, so scaling up adaptation solutions and facilitating access to funding to achieve climate resilience will drive economic and social development. According to the IPCC projections, barring effective adaptation measures, disasters related to water use will reduce the Central Asia GDP by 10.7% decline by 2050.

During COP27, the EDB took part in regional round tables and side events aimed at strengthening international co-operation, and presented the measures taken by the countries of the region to adapt to climate change and mitigate its consequences.

Attachment 2. Carbon Dioxide Emissions in the Countries of the Eurasian Region, million tonnes of CO₂

	RA	RB	RK	KR	RF	RT	RU
2000	3.5	54.9	147.5	4.6	1,478.2	2.2	121.0
2001	3.5	54.0	142.3	3.9	1,514.7	2.3	122.6
2002	3.1	53.8	160.0	4.9	1,505.5	1.9	127.5
2003	3.5	55.1	177.8	5.4	1,535.3	2.1	125.9
2004	3.7	58.3	187.3	5.8	1,541.8	2.6	125.1
2005	4.4	59.3	200.4	5.5	1,559.1	2.4	116.6
2006	4.4	61.7	220.0	5.4	1,618.2	2.7	119.5
2007	5.1	60.2	226.1	6.5	1,618.6	3.2	119.9
2008	5.6	62.8	227.1	7.5	1,647.0	2.9	123.4
2009	4.4	60.6	221.1	6.7	1,539.3	2.4	106.0
2010	4.3	62.4	247.0	6.3	1,626.2	2.5	104.2
2011	5.0	61.3	237.0	7.6	1,679.3	2.3	113.3
2012	5.7	62.5	243.9	10.0	1,694.6	2.9	118.9
2013	5.5	64.1	251.5	9.7	1,632.7	2.9	112.3
2014	5.6	63.6	297.6	10.1	1,631.7	4.6	107.4
2015	5.5	58.8	301.3	10.3	1,629.7	5.3	103.7
2016	5.2	58.1	304.8	9.6	1,624.8	6.4	110.1
2017	5.5	59.3	320.8	9.3	1,654.2	7.9	108.9
2018	5.8	62.1	331.8	11.1	1,700.5	9.1	116.5
2019	6.3	62.0	297.6	9.0	1,692.4	9.8	118.8
2020	6.4	58.6	278.4	8.5	1,624.2	9.4	118.2
2021	6.8	59.6	276.7	9.3	1,755.5	10.3	121.6

Source: Global Carbon Project

Attachment 3. National Climate Agenda Targets of the Countries of the Eurasian Region

National Programmes	Tasks	2030 Targets	2050 Targets	Instrument of Climate Regulation
Kazakhstan				
<p>Environmental Code</p> <p>Law On Support of Utilisation of Renewable Sources of Energy</p> <p>Law On Energy Conservation and Energy Efficiency Improvement</p> <p>Kazakhstan 2050 Strategy</p> <p>Strategy for the Development of the Fuel and Energy Complex of the Republic of Kazakhstan until 2030</p> <p>Conceptual Framework for the Transition of the Republic of Kazakhstan to the Green Economy (2021–2030)</p> <p>Conceptual Framework for the Management of Water Resources of Kazakhstan (2020–2030)</p> <p>Strategy for the Attainment of Carbon Neutrality of the Republic of Kazakhstan until 2060</p>	<ul style="list-style-type: none"> • Improve productivity of resources; • Improve control of sustainable consumption of resources and the condition of the environment; • Modernise the economy using the most effective available technologies; • Prioritise measures making it possible not only to improve the environmental situation, but also to receive economic benefits; • Educate members of the business community and individual citizens to promote a culture of environmental awareness; • Actively deploy tools designed for power management, expert assessment of energy-saving activities, and improvement of energy efficiency; regulate energy consumption; conduct energy audits; monitor and assess energy efficiency measures; • Modernise current and build new electricity and heat generation and transmission facilities; • Improve technologies and infrastructure facilities used for alternative energy sources; • Improve the well-being of the population and the quality of the environment by using profitable ways to relieve environmental pressure; • Improve the national security, including water security, and digitise the water sector 	<ul style="list-style-type: none"> • Reduce GDP energy intensity by 30% relative to 2008; • Increase the share of alternative sources in power generation to 30%; • Increase the share of gas-fired power plants in power generation to 25%; • Reduce greenhouse gas emissions by 15% relative to 2012 (by 25% with international support) 	<ul style="list-style-type: none"> • Reduce GDP energy intensity by 50% relative to 2008; • Increase the share of alternative sources in power generation to 50%; • Increase the share of gas-fired power plants in power generation to 30%; • Reduce carbon dioxide emissions in power generation by 40% relative to 2012; • Reduce recycled waste to 50% <p>Achieve carbon neutrality by 2060</p>	<p>ETS testing:</p> <ul style="list-style-type: none"> • Assignment of GHG quotas on the basis of national plans for the distribution of quotas by granting emissions quotas; • Monitoring, reporting, and verification of GHG emissions with respect to regulated companies and plants; • Trade in quota units and units received from internal projects

National Programmes	Tasks	2030 Targets	2050 Targets	Instrument of Climate Regulation
Russia				
<p>Climate Doctrine of the Russian Federation</p> <p>Government Degree On the Mechanism to Encourage the Use of Renewable Energy Sources in the Wholesale Electricity and Capacity Market</p> <p>State Programme Protection of the Environment</p> <p>Conceptual Framework for the Development of the Greenhouse Gas Emissions Monitoring, Reporting, and Verification System in the Russian Federation</p> <p>Federal Law No. 296-FZ On Restriction of Greenhouse Gas Emissions</p> <p>Strategy for the Long-Term Development of the Russian Federation with Low Greenhouse Gas Emission Levels until 2050</p> <p>National Technology Initiative (NTI), Roadmap of the New NTI Market "Econet"</p>	<ul style="list-style-type: none"> • Introduce energy- and resource-saving technologies in all sectors of the economy, radically reduce energy losses, increase waste processing and recycling, cut deforestation and enhance forest protection; • Preserve and restore biological diversity of the country, improve operational effectiveness of the hydrometeorological and environmental monitoring system, encourage research in the Antarctic, the Arctic, and Spitsbergen, and protect Lake Baikal; • Strengthen and enhance information, research, social, economic, and personnel climate protection policies; • Develop and introduce near-term and long-term measures to adapt to climate change; • Develop and introduce near-term measures to mitigate anthropogenic impact on the climate; • Engage in international climate change co-operation; • Develop a green finance system 	<ul style="list-style-type: none"> • Reduce GDP carbon intensity by 9% relative to 2017; • Reduce greenhouse gas emissions by 30% relative to 1990 	<ul style="list-style-type: none"> • Reduce GDP carbon intensity by 48% relative to 2017 <p>Achieve carbon neutrality by 2060</p>	<ul style="list-style-type: none"> • Testing of Russia's first regional GHG emission control system in Sakhalin Region that would contribute to the region's goal to become carbon neutral by 2025. The pilot scheme which was launched in 2022 is based on the cap-and-trade principle, and could be scaled-up in other regions of the country.

National Programmes	Tasks	2030 Targets	2050 Targets	Instrument of Climate Regulation
Armenia				
<p>Conceptual Framework for the Achievement of National Energy Security</p> <p>Strategic Programme for the Development of the Energy Sector until 2040</p> <p>National Energy Conservation and Renewable Generation Programme (2022–2030)</p> <p>Solid Waste Disposal System Development Strategy (2017–2036)</p> <p>National Forest Fires Management Policy, Implementation Strategy, and List of Measures</p>	<ul style="list-style-type: none"> • Guarantee purchase of electricity generated by renewable sources; • Introduce competition mechanisms in the non-regulated segment of the market; • Ensure free access to the market for new players; • Promote regional electricity trade; • Reequip forest management personnel, in particular, create a rapid fire response team 	<ul style="list-style-type: none"> • Reduce greenhouse gas emissions by 40% relative to 1990 • Meet national energy needs exclusively with nuclear energy (30%) and renewable energy (70%, including 15% generated by solar power stations) <p>Sustainable Development Strategy until 2030: work in progress.</p>	<ul style="list-style-type: none"> • Reduce greenhouse gas emissions to 633 million tonnes <p>Achieve carbon neutrality by 2050 (unofficial position)</p>	None
Belarus				
<p>National Sustainable Social and Economic Development Strategy of the Republic of Belarus until 2030</p> <p>Low-carbon Development Strategy of the Republic of Belarus until 2030</p> <p>Strategy for the Adaptation of Forest Management and Agriculture to Climate Change until 2050</p> <p>National Action Plans:</p> <ul style="list-style-type: none"> – Development of the Green Economy in the Republic of Belarus (2021–2025); – Adaptation of Forest Management to Climate Change until 2030; – Increase in Absorption of Greenhouse Gases by Sinks until 2030.. <p>State Programme Environmental Protection and Sustainable Utilisation of Natural Resources (2021–2025).</p>	<ul style="list-style-type: none"> • Develop laws and regulations, implement government programmes and measures: <ul style="list-style-type: none"> – Providing a set of steps to restrict anthropogenic greenhouse gas emissions, protect and improve the quality of greenhouse gas sinks and reservoirs; – Providing procedure for the performance of national commitments under the UNFCCC and the Kyoto Protocol. • Strengthen the renewable energy source policy of the Republic of Belarus, introduce low-carbon and zero-carbon technologies; • Implement sustainable consumption and production principles; • Develop green finance, closed-loop economy, organic agriculture, environmental tourism, low-carbon power generation, electric transport (infrastructure), and urban mobility; • Create smart and energy-efficient green cities; • Mitigate climate change consequences, and ensure proper adaptation to climate change; • Preserve and use biological and landscape diversity sustainably; • Develop scientific substantiation for the transition to the green economy. 	<ul style="list-style-type: none"> • Reduce GDP energy intensity by at least 35% relative to 2015; • Increase environmental protection costs to 2–3% of the GDP; • Reduce greenhouse gas emissions by 28–35% subject to the projected economic growth rate, including the sector “Land Use, Changes in Land Use, and Forest Management”, with no additional funding (2021 NDC); • Increase the ratio of primary generation (production) from RES to gross power consumption to 8%. 	<ul style="list-style-type: none"> • Expand the area covered with forests to 42% by 2050 	None

National Programmes	Tasks	2030 Targets	2050 Targets	Instrument of Climate Regulation
Kyrgyzstan				
<p>National Energy Programme</p> <p>Strategy for the Development of the Fuel and Energy Complex until 2030</p> <p>Climate Investment Programme, 2017</p> <p>Green Economy Development Programme (2019–2023), 2019</p> <p>Conceptual Framework for the Development of the Forest Industry until 2040</p> <p>National Development Programme until 2026</p>	<ul style="list-style-type: none"> • Improve resource efficiency of the industrial sector; • Switch to low-carbon fuel and electricity in the transport sector; • Improve energy efficiency of fuel and energy resources; • Ensure the transition to the energy-saving development path; • Develop hydropower engineering, organic and climate-resilient agricultural practices 	<ul style="list-style-type: none"> • Reduce greenhouse gas emissions relative to the “business as usual” scenario by 16.63% by 2025, and by 15.97% by 2030 • If international support is available, reduce greenhouse gas emissions by 36.61% by 2025, and by 43.62% by 2030 • Increase the share of RES in total power generation from 1% to 5%, mostly using small HPPs. 	<ul style="list-style-type: none"> • Expand the area covered with forests by 6% by 2040; • Expand the area of specially protected territories to 10% of the total area of the country. <p>Achieve carbon neutrality by 2050.</p>	None
Tajikistan				
<p>Conceptual Framework for the Transition to Sustainable Development</p> <p>National Development Strategy of the Republic of Tajikistan until 2030</p> <p>National Climate Change Adaptation Strategy of the Republic of Tajikistan until 2030</p>	<ul style="list-style-type: none"> • Employ innovative methods of agricultural production with minimal impact on the environment and the quality of soil; • Increase availability of improved seeds and fertilisers in the domestic market; • Ensure equitable and sustainable distribution of land and water resources; • Ensure sustainable operation and maintenance of the irrigation and drainage infrastructure 	30–40% (depending on international funding)	None	None

National Programmes	Tasks	2030 Targets	2050 Targets	Instrument of Climate Regulation
Uzbekistan				
<p>Strategy for the Transition of the Republic of Uzbekistan to the Green Economy (2019–2030)</p> <p>National Sustainable Development Goals and Objectives until 2030 and Action Plan for the Effective Implementation of the National Goals (2022–2026)</p> <p>New Uzbekistan Development Strategy (2022–2026)</p>	<ul style="list-style-type: none"> • Increase water use effectiveness and energy efficiency of the key sectors of the economy; • Ensure rational consumption of natural resources through technical modernisation; • Ensure availability of balanced high-quality nutrition to the entire population; • Strengthen food security; • Encourage sustainable development of the agricultural sector; • Take steps to mitigate the adverse impact of the ecological crisis in the Aral Sea Region 	<ul style="list-style-type: none"> • 35% (*relative to 2010) • up to 30% of RES in total generation (focus on solar power stations) 	None	None

Source: Klepach, 2021; EDB.

Attachment 4. Sample Projects from the Bank of Climate Technologies and Digital Initiatives

Country	Sample Climate Technologies
Belarus	<ul style="list-style-type: none"> • Headworks photovoltaic station; output: 67.6 million kWh/year • Wind park; total capacity: 120 MW, combined annual output: 326 million kWh • Storage system of a superfast 400 kWh charger; used to store electricity during the night • Network of 590 Belarusian Malanka [Lighting] e-vehicle chargers • Monitoring system for critical infrastructure facilities, information systems, and monitoring devices used to prevent natural and technogenic operational failures
Kazakhstan	Information System “Monitoring of Environmental Emissions” (the remaining projects are related to digitisation, and have no bearing on the Green Agenda)
Russia	<ul style="list-style-type: none"> • Construction of a low-capacity nuclear power plant • Construction of wind power stations • Production and use of “blue” hydrogen in Vologda Region at a Severstal production facility • Production and exportation of “green” hydrogen (12 thousand tonnes per year) in Murmansk Region • Electrolytic production of low-emission hydrogen, and creation of a hydrogen cluster in the vicinity of the Kola NPP • Carbon dioxide capture and disposal project • Hybrid battery-trolley DC locomotive with asynchronous motor drive and on-board energy storage unit • Development of a fire monitoring system • Development and production of the Marlin-YUG specialised autonomous measurement platforms (buoys) for scientific and environmental monitoring of the World Ocean, in particular, the Arctic and Antarctic areas; forecasting of environmental change scenarios and identification of climate shift consequences

Source: EEC, Bank of Climate Technologies and Digital Initiatives

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Acronyms and Abbreviations

ADB – Asian Development Bank	RA – Republic of Armenia
AIFC – Astana International Financial Centre	RB – Republic of Belarus
AMX – Armenia Securities Exchange	RES – renewable energy sources
ASCC – ASEAN Socio-Cultural Community	RF – Russian Federation
ASEAN – Association of Southeast Asian Nations	RK – Republic of Kazakhstan
BCSE – Belarusian Currency and Stock Exchange	Roshydromet – Federal Service for Hydrometeorology and Environmental Monitoring of Russia
CAREC – Central Asia Regional Economic Co-operation	RT – Republic of Tajikistan
CAWEP – Central Asia Water & Energy Programme	RU – Republic of Uzbekistan
CBAM – Carbon Border Adjustment Mechanism	SCO – Shanghai Co-operation Organisation
CBI – Climate Bonds Initiative	SDG – sustainable development goal
CBT – Carbon Border Tax	SLOCAT – Sustainable Low-carbon Transport
CIS – Commonwealth of Independent States	Sum4ALL – Sustainable Mobility for All
CSRF – Corporate Sustainability Reporting Directive	TITR – Trans-Caspian International Transport Route
EAEU – Eurasian Economic Union	UN – United Nations Organisation
EBRD – European Bank for Reconstruction and Development	UNDP – United Nations Development Programme
EDB – Eurasian Development Bank	UNFCCC – UN Framework Convention on Climate Change
EEC – Eurasian Economic Commission	US – United States of America
EFSD – Eurasian Fund for Stabilization and Development	WorldGBC – World Green Building Council
EIB – European Investment Bank	WTO – World Trade Organisation
EU – European Union	\$ – US dollar
FINTECC – Finance and Technology Transfer Centre for Climate Change	% – percent
GDP – gross domestic product	bps – basis points
GEF – Global Environment Facility	km – kilometre
GEFF – Green Economy Financing Facility	
GHG – greenhouse gases	
GSS+ – Green, Social, Sustainable, and Other Labelled Bonds	
ICAO – International Civil Aviation Organisation	
ICMA – International Capital Market Association	
IEA – International Energy Agency	
IFAS – International Fund for Saving the Aral Sea	
IPCC – Intergovernmental Panel on Climate Change	
IRENA – International Renewable Energy Agency	
IsDB – Islamic Development Bank	
KazGBC – Kazakhstan Green Building Council	
KR – Kyrgyz Republic	
KSE – Kyrgyz Stock Exchange	
MDB – multilateral development bank	
MOEX – Moscow Exchange	
NDCs – Nationally Determined Contributions	
NFRD – Non-Financial Reporting Directive	
PRC – People’s Republic of China	

Key Terms

Adaptation to climate change: adjustment of natural, social, or economic systems in response to actual or anticipated climate change and its impacts.

Best available technology: technology employed to manufacture products (goods), perform works, or provide services, as defined by the cutting-edge scientific and technical achievements and the best combination of criteria for the attainment of environmental protection goals, subject to current technical feasibility.

Carbon neutrality (zero emissions): a balance between anthropogenic emissions of greenhouse gases and their absorption.

Closed-loop economy (cyclic or circular economy): model of production and consumption where waste is minimised, reused, and recycled.

Decarbonisation: reduction of greenhouse gas emissions.

Emissions (carbon) leakage: phenomenon related to varying severity of climate regulations, where companies transfer their production facilities to countries with less stringent emission limits, or imports from countries with relaxed regulations squeeze out products manufactured in countries with strict regulations.

ESG: three factors of sustainable development of commercial activities used to assess environmental responsibility (E), social responsibility (S), and quality of corporate governance (G).

Fugitive emissions: regular and irregular emissions of methane (CH₄) and carbon dioxide (CO₂) into the atmosphere from production, transportation, storage, and processing of oil or natural gas.

Global energy transition: structural transformation of the global energy balance to decrease the share of fossil fuels, and increase the share of renewable and low-carbon energy sources.

Green bond (loan or debt instrument): a bond, loan, or other debt instrument whose proceeds are exclusively used to partially or fully finance or refinance new or existing acceptable green projects in compliance with the four components of the Green Bond Principles/Green Loan Principles of the International Capital Market Association and/or national green taxonomies.

Green energy: the sector of the energy industry which uses renewable energy based on hydrogen, energy generated by the sun, wind, and water (including waste water), biomass, biogas, geothermal and nuclear energy.

Green growth (green transformation): economic progress that fosters growth and development and ensures that natural assets remain intact and continue to provide the resources and environmental services for the good of our well-being, as well as encourages investment and innovation for sustainable growth and new economic opportunities.

Green mortgage: loan extended by the bank to finance construction or acquisition of a real property to minimise adverse environmental impacts (e.g., through higher energy efficiency, or environmentally friendly construction materials).

Industrial symbiosis: sustainable development framework for industrial enterprises where wastes of one company become resources for another company.

Low-carbon technologies: technologies reducing greenhouse gas emissions per useful product unit.

Mitigation: measures designed to eliminate or minimise long-term risks associated with climate change, make its human impacts less severe, reverse or slow down climate change, for example, by reducing greenhouse gas emissions, or removing greenhouse gases from the atmosphere.

Responsible investing: an approach where investment decisions recognise the relevance of environmental, social, and governance (ESG) factors.

Sustainability-linked bonds, sustainability-linked loans: bonds or loans whose proceeds are used to meet general corporate needs, but borrowing terms are linked to achievement by the issuers of certain sustainability targets.

Transition: projects which fail to meet the strict criteria applicable to green projects, but contribute to the overall reduction of greenhouse gas emissions, including projects related to extraction and use of fossil fuels.



Macroeconomic Review (RU)

A regular EDB publication, which provides an overview of the current macroeconomic conditions in the EDB member states and estimates their development in the short-term perspective.



Macroeconomic Outlook (RU/EN)

EDB Macroeconomic Outlook 2023

The analysis summarises economic developments in the Bank's member states in 2022 and provides key macroeconomic projections for the region's countries for 2023 and 2024.



Report 21/1 (RU)

Promoting the Role of the EAEU Currencies in Global Transactions

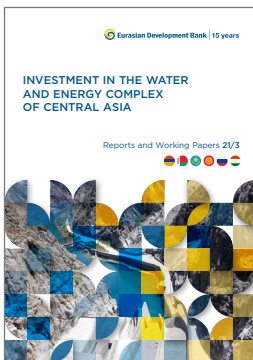
EAEU currencies service around 2% of global trade. As for the EAEU countries, payments in their currencies have notably increased over the past seven years — their share in trade flows jumped from 63% in 2013 to 74% in 2019.



Report 21/2 (RU/EN)

Uzbekistan and the EAEU: Prospects and Potential Impact of Economic Integration

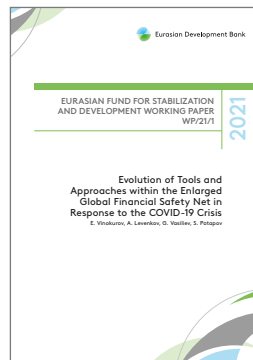
The report estimates the potential effects of Uzbekistan's integration with the EAEU and outlines promising areas for cooperation between the current Union member states and Uzbekistan.



Report 21/3 (RU/EN)

Investment in the Water and Energy Complex of Central Asia

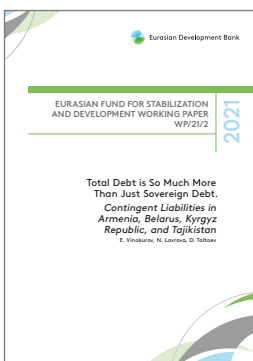
The report analyses Central Asia's water and energy complex after 30 years of independence of the five Central Asian countries (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan) and assesses their cooperation in the water and energy complex.



Working Paper WP/21/1 (RU/EN)

Evolution of Tools and Approaches within the Enlarged Global Financial Safety Net in Response to the COVID-19 Crisis

This working paper provides the analysis how the GFSN responded to pandemic on global level and on regional level (in the EFSD countries).



Working Paper WP/21/2 (RU/EN)

Total Debt is So Much More Than Just Sovereign Debt. Contingent Liabilities in Armenia, Belarus, Kyrgyz Republic, and Tajikistan

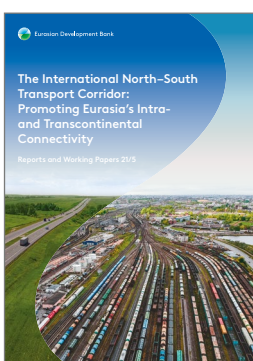
This study aims to contribute to understanding the potential risks and impacts of both explicit and implicit contingent liability shocks on government fiscal and debt positions in the EFSD recipient countries.



Report 21/4 (RU/EN)

EDB Monitoring of Mutual Investments

Mutual investments in Eurasia, calculated using a new methodology, reach US \$46 billion. FDI has been growing steadily since 2016.



Report 21/5 (RU/EN)

The International North-South Transport Corridor: Promoting Eurasia's Intra- and Transcontinental Connectivity

Linking up the INSTC with Eurasian latitudinal corridors could ensure around 40% of container traffic.



Joint report by the Eurasian Development Bank and the Global Energy Association (RU/EN)

Green Technologies for Eurasia's Sustainable Future

The report is prepared by the key international industry experts and young scholars. It contains the results of technical research aimed at solving today's energy challenges and helping to reduce the carbon footprint in Eurasia.



Report 22/1
(RU/EN)

EDB Integration Business Barometer

About 73% of companies feel positive about the EAEU and say it makes doing business easier.



Report 22/2
(RU/EN)

International North-South Transport Corridor: Investments and Soft Infrastructure

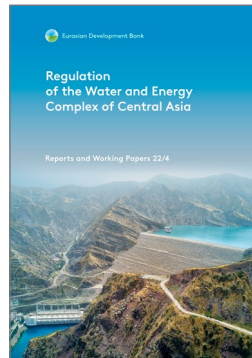
The study assesses the investment potential of the INSTC, identifies barriers to its development and provides recommendations on how to eliminate them.



Report 22/3
(RU/EN)

The Economy of Central Asia: A Fresh Perspective

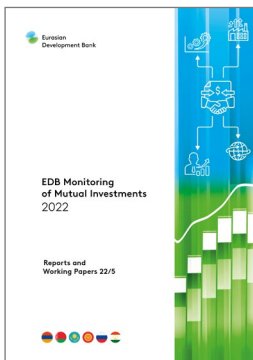
The report provides a renewed perspective on Central Asia as a large, dynamic and promising economic region and analyses its current structural changes and major growth areas..



Report 22/4
(RU/EN)

Regulation of the Water and Energy Complex of Central Asia

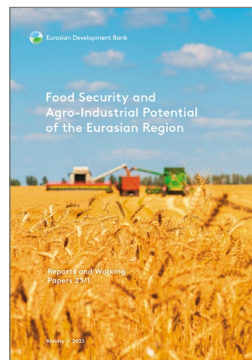
The report scrutinises historical data and international experience to suggest five institutional solutions for effective regulation and development of Central Asia's water and energy complex that would benefit all countries of the region.



Report 22/5
(RU/EN)

EDB Monitoring of Mutual Investments – 2022

This report continues the series of publications detailing the findings of a long-standing research project monitoring mutual direct investments of the CIS countries and Georgia.



Report 23/1
(RU/EN)

Food Security and Agro-Industrial Potential of the Eurasian Region

Based on the balance approach, the report analyses the production, resource, and export potential of the agro-industrial complexes of the EAEU countries, Tajikistan, and Uzbekistan for the period until 2035.



Eurasian Development Bank

**RESEARCH DEPARTMENT
DIRECTORATE OF SUSTAINABILITY
EURASIAN DEVELOPMENT BANK**

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