

Analysis of Climate Policies of the Countries of Eastern Europe, Caucasus and Central Asia

2020

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Abbreviations

EECCA	– Eastern Europe, Caucasus and Central Asia
EU	– European Union
FEC	– Fuel and energy complex
GDP	– Gross domestic product
LULUCF	– Land use, land use change and forestry
NAMA	– Nationally Appropriate Mitigation Action
NDC	– Nationally determined contribution
OECD	– Organization for Economic Cooperation and Development
RES	– Renewable energy sources
TPS	– Thermal power station

Introduction

In the 21st century, addressing the issue of climate change has become one of the key challenges for politicians around the world. In recent decades, global climate change and its regional impacts continue to negatively affect countries' stable economic development. For example, abnormal hydrometeorological processes contribute to an increase in the number of natural disasters, mudflows, floods, squalls, droughts, strong winds, intense rains, forest fires, fluctuations in the levels of water bodies, and other phenomena. Currently, the economy of not only individual countries, but also the whole world faces significant damages due to the climate change. A real danger to humanity arises, which requires active decision-making and actions from the global community, scientists, and politicians.

A Report of the Intergovernmental Panel on Climate Change on the consequences of global warming of 1.5°C published in 2018 indicated that a temperature increase of even 1.5°C would lead to irreversible environmental changes. In order to limit global warming, human-induced carbon dioxide (CO₂) emissions need to be reduced by 45-60% by 2030 compared to 2010, scientists say. By 2050, a zero balance, when all anthropogenic CO₂ emissions will be absorbed by ecosystems, should be reached.

In the Eastern Europe, Caucasus and Central Asia (EECCA) region, countries are already feeling the negative effects of climate change. All EECCA

states have recorded an increase in the average annual temperature. Central Asia is considered one of the most vulnerable regions in the world. In addition, EECCA states have already faced changes in seasons' duration, amount and distribution of precipitation, droughts, and floods, and a decrease in water supplies. As global temperature rises, negative impacts will only exacerbate.

All countries in the EECCA region have ratified the Paris Agreement, which aims to prevent global temperature from rising by more than 2°C and make every effort to keep global temperature from rising by more than +1.5°C. Achievement of these goals will depend on a wide range of political tools that can be used at the national level to mitigate climate change effects. That is why an analysis of climate policy in the EECCA countries was made.

The analysis regards these countries' commitments to reduce emissions of greenhouse gases (GHG), development goals in the energy sector, energy efficiency, agriculture, and transport sector, adaptation, and availability of market tools to reduce GHG emissions.

We hope this report will serve as a basis for revising the countries' long-term climate targets, including Nationally Determined Contributions (NDCs) and sectoral strategies that have a direct impact on the achievement of the 1.5-2.0°C target by the end of the century.



Republic of Azerbaijan

Vulnerability to climate change:

Climate change in the Republic of Azerbaijan can lead to higher precipitation variability, increased likelihood of droughts, and higher temperatures. All these changes will negatively [affect agriculture](#), which is a key economic sector. Agriculture uses about 58% of the state's land and creates 36.4% of jobs. Over the past 10 years, the number and intensity of floods in the country's small mountain rivers has increased. One of the reasons for this is the fall of monthly precipitation volumes in one day in these areas. Similar phenomena will occur more frequently as global temperatures increase.

THE COUNTRY'S ROLE IN PREVENTING GLOBAL TEMPERATURE GROWTH

Emission reduction target: **35% by 2030**



Reduction commitments

In its NDC, Azerbaijan has set a goal to reduce emissions by 35% by 2030 compared to the base year of 1990, that is from 73 to 48 million tons of CO2 [equivalent](#). The major sectors that should ensure reduction include energy, agriculture, and waste. Azerbaijan considers this commitment very ambitious, though in fact emissions may grow compared to current [levels](#).

With regard to government programs, the Development Concept "Azerbaijan 2020: Look into the [Future](#)" aims at economic development based on such principles and priorities as rational energy use, modernization of the oil and gas industry and development of the oil sector, and development of alternative energy sources. However, the Concept disregards the GHG emissions goals and the ways to achieve them.

The recently adopted State Program on Socio-Economic Development of Regions of the Republic of Azerbaijan in 2019-[2023](#) also aims at the oil industry development. This sector includes chemical production, metallurgy, mechanical engineering, electrical engineering, light industry, etc.

Thus, though the country strives to reduce economic dependence on the oil sector, diversification of the economy itself will not lead to a decrease in emissions without additional measures, since other industrial sectors will continue developing. Moreover, strategies clearly identifying the way to achieve the 35% goal are still absent.



Energy sector

The energy sector is the largest source of GHG in Azerbaijan and accounted for [75%](#) of emissions in 2012 (including transport). Due to resources' availability, Azerbaijan has traditionally relied on the use of oil and gas for energy generation. For instance, in 2016 they accounted for 91% of the total energy; meanwhile, hydropower accounted for 8% and renewable [sources](#) for less than 1%.

Nevertheless, in its NDC Azerbaijan intends to develop alternative energy sources, such as solar, wind, and geothermal [energy](#). One of Azerbaijan's goals was to achieve a [20%](#) share of alternative energy in the total electricity production by [2020](#). The country has some achievements as at

the beginning of 2020 the share of RES constituted [17%](#), though including energy from hydroelectric power stations.

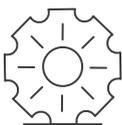


Energy efficiency

GHG emissions per capita accounted for 6.1 tons of CO2 equivalent in [2012](#). Although this figure is lower than in other countries that depend on oil and gas for electricity production (Kazakhstan and the Russian Federation), it is higher than in the Organization for Economic Cooperation and Development (OECD) countries. The situation is the same with regard to emission intensity — in 2012, up to 1 kg of CO2 equivalent accounted for \$1 of GDP, which is lower than in other countries of Central Asia and Caucasus, but higher than in [OECD](#) countries.

Azerbaijan aims to improve this indicator while raising it closer to the OECD countries' level as stated in the [2020](#) Development [Concept](#). In addition, the Strategic Roadmap on the National Economy Outlook for 2016-2025 plans to reduce economic intensity through the development of renewable [energy](#).

Regarding measures to reduce emissions from energy production, Azerbaijan's NDC assumes modernization of the technologies used and reconstruction of distribution networks. Infrastructure is a crucial area for development as Azerbaijan faces energy losses in transmission networks — about [11-12%](#). However, there is currently no legislation on energy efficiency standards in Azerbaijan but it is being [developed](#).



Other sectors

Other sectors that emit GHG include agriculture (13.6% in 2012), industry (5.8%), and waste ([4.8%](#)). Industry and construction account for a significant part of the country's GDP (55.2% in 2018). Herewith, the share of agriculture in GDP is much lower (5.3% in 2018), but this sector employs about one [third](#) of the country's popu-

lation. Thus, it is extremely important for Azerbaijan to develop strategies to reduce emissions in these sectors.

The NDC plans to reduce emissions in the oil and gas production, transport, buildings, and agriculture. In particular, electric transport and railways are to be developed. In fact, most of the state's transport costs are spent on the road transport infrastructure. Less than 1% is spent on [railway](#) development. With regard to industry, the Strategic Roadmap for the Development of Heavy Industry and Machinery Manufacturing for 2016-2025 assumes energy efficiency improvements in these sectors.

In general, Azerbaijan's strategic documents do not pay due attention to reducing emissions from industry, agriculture, buildings, and transport. They also lack specific targets and indicators for reducing emissions, which would help these sectors contribute to the national target adopted under the Paris Agreement.



Adaptation commitments

Azerbaijan's NDC document assumes no practical adaptation measures though the country is already facing climate change effects, such as lack of rainfall and [temperature](#) rise. The NDC only briefly mentions the need to plant new forests, protect water resources, ensure urban greening, and improve agricultural [practices](#). As for other documents, the Development [Concept 2020](#) suggests such measures as rehabilitation of unusable lands and improvement of agricultural practices and land use. However, these sectors lack comprehensive strategies and policies setting specific achievement indicators.

One of the sectors that has adopted a medium-term strategy is the use of forest resources. The government adopted the National Forestry Program 2020-2030, the main goal of which is to modernize [management](#).

CO2 tax and emissions trading system are [absent](#).



Vulnerability to climate change:

Georgia faces a threat of hydrometeorological hazards and natural disasters. Frequent natural disasters include landslides, floods, flash floods, mudflows, droughts, avalanches, strong winds, and storms. These risks are expected to [exacerbate](#) due to the climate change. In recent years, the number of natural disasters has almost [tripled](#) and in many cases they are considered catastrophic, resulting in life losses and economic losses.

The agricultural sector significantly contributes to Georgia's economy and food security while employing about 42% of the country's working-age population. Climate change leads to higher temperatures and changes in precipitation. This trend causes droughts in the eastern regions, which previously received sufficient precipitation.

THE COUNTRY'S ROLE IN PREVENTING GLOBAL TEMPERATURE GROWTH

Emission reduction target: **15% by 2030**



Reduction commitments

Georgia has pledged to cut GHG emissions by 15% by 2030 compared to the "business as usual" scenario. The major sectors that will ensure reductions include energy, industrial processes, agriculture, and [waste](#). The NDC assumes a decrease in such sectors as renewable energy, energy efficient buildings, and transport. According to forecasts, Georgian economy will grow and so will emissions. Therefore, with both an unconditional reduction by 15% and a conditional reduction of emissions by 25%, Georgia will actually continue increasing emissions volume until 2030. If the unconditional target is met, Georgia will increase its emissions from [17](#) million tons in 2016 to [32.7](#) million tons of CO₂ equivalent in 2030.

Georgia revised its NDC in 2020. Previous NDC was too low to meet the goals of the Paris Agreement. The Updated Contribution Project considers a reduction target of 35% from 1990 level, but a 50-57% reduction scenario is possible with international support, which still means no

actual emission reductions. A Climate Action Plan for 2021-2030 is being developed and it will be adopted in 2020-[2021](#). The Plan will identify sectoral goals and specific measures to [achieve](#) them.



Energy sector

Emissions from the energy sector account for the largest share of the total volume — 54.7% in [2011](#). However, this figure includes not only electricity consumption, but also transport emissions. Emissions from electricity and heat production account for a relatively low share of emissions — [7.6%](#).

The reason for the low share of emissions from electricity generation is that Georgia heavily relies on hydropower accounting for about [81%](#) in 2016. However, other sources of alternative energy are poorly developed: in 2016 their share was less than [1%](#).

Regarding strategic documents in this area, some programs are being developed but have not been approved yet, such as the Energy

Development [Strategy](#) and the Long-Term Low Emission Development Strategy. Though the latter has not been approved, it plans to increase the share of hydropower to 85% and the share of other RES to 2% by [2030](#).

A number of existing documents prioritize reduction of energy imports and development of own energy: the Social-economic Development Strategy “Georgia [2020](#)”, Freedom, Rapid Development, Prosperity — Government Platform 2016-[2020](#), and Freedom, Rapid Development and Welfare — Government Program for 2018-2020. Although some of these documents consider development of renewable energy, they do not set specific goals and indicators for such development.



Energy efficiency

In its NDC, Georgia commits to reduce energy intensity of GDP by 34% from 2013 to [2030](#). Currently, its economic energy intensity is about 30% higher compared to the [EU](#) member states. One of the strategic documents in this area is the National Energy Efficiency Action Plan. One of its main goals is to save energy by 14% by [2025](#) compared to the “business as usual” scenario. This plan is one of the few in the field of energy efficiency. The Social-Economic Development Strategy “Georgia [2020](#)”, for example, mentions the need to improve energy efficiency but does not set clear goals.



Other sectors

Among other sectors, the largest volume of emissions is produced by industrial processes (22.7% in 2011), agriculture (15.2%), waste (7.4%), and transport ([14.5%](#)), which is also included in the energy sector. Currently, no programs have been adopted to reduce emissions from these sectors in the medium- or

long-term perspectives. For example, a Plan to Improve Energy Efficiency of Buildings is being developed (under the NAMA, Nationally Appropriate Mitigation Action), but its coverage is very small — less than 1% of the entire construction sector in [Georgia](#). In the field of urban transport, a similar [plan](#) is being developed. In addition, the government is working on the Action Plan to Reduce Environmental Pollution From the Transport [Sector](#).

In the field of agriculture, the Agricultural Development Strategy 2015-2020 was adopted; it mostly focuses on improving food security and the sector’s competitiveness. However, this Strategy, like the Social-Economic Development Strategy “Georgia [2020](#)”, provides for more sustainable agricultural practices. Both documents disregard emission reduction in this sector.



Adaptation commitments

In its NDC, Georgia plans to take adaptation measures in the agricultural sector, which is partially covered by the strategies mentioned above. The first NDC also focuses on the forestry sector, committing to reforestation or planting the new cover on 1,500 hectares of degraded land and to promoting natural reforestation of 7,500 hectares by [2030](#).

In addition, the parliament considers a new Forest [Code](#), which aims to strengthen forests’ protection. In general, forest sector measures should reduce emissions by at least 1 million tons of CO2 over [10 years](#). Finally, Georgia has a National Biodiversity Strategy and an Action Plan of Georgia for 2014-[2020](#), which aims to incorporate sustainable use and economic value of biodiversity and ecosystems into legislation by [2020](#).



Position during COP25

At the conference, Nino Tkilava, Head of Environment and Climate Change Department of the Ministry of Environmental Protection and Agriculture represented Georgia. In her speech, she drew attention to the fact that Georgia is

revising its NDC, which may decrease by 40% by 2030 compared to the base year of 1990. She also noted that the Climate Action Plan for 2021-2030

is being developed. In addition, Nino Tkhilava emphasized the need to clarify the provisions on losses' [accounting](#).

CO2 tax and emissions trading system are [absent](#).

Vulnerability to climate change:

Drought is common in the country, as well as landslides, mudflows, avalanches, squalls, rainstorms, frosts, outburst of glacial lakes, floods, rising groundwater, river erosions, and earthquakes. The country suffers from 3,000 to 5,000 such disasters every year. Rising temperatures, changing hydrological conditions, and increased frequency of extreme weather events related to climate change will exacerbate the vulnerability of the Kyrgyz Republic and [reduce](#) its ability to manage extreme events.

The agricultural sector is the backbone of the Kyrgyz Republic economy. Agriculture-related activities employ 65% of its population. This sector is extremely vulnerable to climate change and fluctuations. Droughts can increase the lack of irrigation water and accelerate land degradation, which will lead to reduced output.

THE COUNTRY'S ROLE IN PREVENTING GLOBAL TEMPERATURE GROWTH

Emission reduction target: **11.49-13.75% by 2030**



Reduction commitments

In 2020, Kyrgyzstan announced the process of [updating](#) its NDC. The NDC approved set a goal to reduce GHG emissions by 11.49-13.75% by 2030 and by 12.67-15.69% by 2050. Sectors that will experience major emission reductions include energy, industry and product use, agriculture, land use, and [waste](#).

Interestingly, Kyrgyzstan does not specify the base year for its goals, using the “business as usual” scenario as a basis. If the unconditional target is reached by 2030, emissions will decrease from about 17 million tons in 2016 to 13 million tons of CO2 equivalent in [2030](#) (excluding LULUCF).

However, in its NDC, Kyrgyzstan claims that the level of the country’s income is low and, therefore, further growth of the economy and [emissions](#) is expected. Thus, at first, emissions

will grow, and then, having reached a peak at a certain point, they will decline.

The country has also made an interim commitment to reduce GHG emissions by 20% by 2020 if international [support](#) is provided. Longer-term documents, such as the National Development Strategy of the Kyrgyz Republic for 2018-[2040](#), do not set interim targets for reducing GHG emissions.



Energy sector

The contribution of energy production to the total emissions is the largest compared to other sectors — [62%](#) in 2016 (10.6 million tons of CO2 equivalent). Herewith, the subsectors with the largest contribution to energy production emissions include transport (3.3 million tons), buildings (2.8 million tons), and electricity and heating (1.9 million tons). Thus, electricity alone is responsible for less than a half of the energy

sector's emissions. One of the reasons for this is the widespread use of hydroelectric power stations producing over 90% of all electricity in [Kyrgyzstan](#) while other RES are undeveloped.

The energy sector involves such strategic documents as the Fuel and Energy Complex (FEC) Development Strategy to 2025, the National Development Strategy for 2018-2040, the Green Economy Development Program for 2019-2023, and the Concept of Development of the Fuel and Energy Complex until 2030. For instance, the Concept of Development of the FEC until 2030 plans to expand the use of RES, including solar, biogas, and geothermal sources. It aims to increase the share of RES from 1% to 5% in the total electricity production, mainly via small hydroelectric power plants. There is also a draft Concept for the Development of the Fuel and Energy Complex until 2040, which is currently under public discussion. The document also sets goals for the development of alternative energy and energy efficiency.



Energy efficiency

In its NDC, Kyrgyzstan sets a goal to limit emission intensity to 1.23-1.58 tons of CO₂ per [capita](#) from 2.7 tons in [2013](#). One of the documents that considers energy efficiency is the National Energy Program for 2008-2010 and the Fuel and Energy Complex Development Strategy to 2025. The program emphasizes the need to increase energy efficiency of fuel and energy resources and create conditions for transition to an energy-saving development. According to the two simulated scenarios, energy losses in networks will decrease to 5-5.5% during 2010-2025 (until 2007 losses exceeded 40%).¹



Other sectors

Among other sectors contributing to GHG emissions, agriculture ranks second after the energy sector — more than 30% of total emissions in [2016](#). Kyrgyzstan plans to develop organic and climate-resilient agricultural practices as stated in the Green Economy Development Program of the Kyrgyz Republic for 2019-[2023](#).

This program also aims to improve the resource efficiency of the industrial sector and ensure transition to low-carbon fuels and electricity in the transport sector. However, there are no specific targets to reduce sectoral emissions.



Adaptation commitments

Since Kyrgyzstan is one of the most vulnerable to climate change countries in the [region](#), it emphasizes adaptation. For instance, the Program of the Agriculture and Water Resources Sector for Adaptation to Climate Change for 2016-[2020](#) outlines various measures in agriculture taking into account climate change. With regard to forests, the main goal of the Concept of Forest Sector Development until [2040](#) is sustainable forest management, in particular through increasing forest areas to 6% by 2040, which is not very ambitious, since in 2010 their share was 5.6%.

Meanwhile, the National Development Strategy for 2018-[2040](#) plans to increase specially protected areas to 10% of the country's total area. Finally, the Concept of Comprehensive Protection of the Population and Territory of the Kyrgyz Republic from Emergency Situations for 2018-[2030](#), which plans measures to reduce various risks, including natural ones, was adopted.

CO₂ tax and emissions trading system are absent.

¹ The National Energy Program of the Kyrgyz Republic for 2008-2010 and the Fuel and Energy Complex Development Strategy to 2025, approved by the Resolution of the Government of the Kyrgyz Republic from February 13, 2008 No. 47



Republic of Armenia

Vulnerability to climate change:

Armenia is vulnerable to [mudflows and landslides](#). About 4.1% of the country’s territory and almost a third of its communities face a landslide risk. Large areas are at risk of droughts and some areas, in particular the Ararat and Shirak valleys, are at risk of flooding. About 40,000 people suffer from floods every year. The risk of natural disasters caused by these factors will grow as climate change [increases the intensity](#) and frequency of extreme climate events.

A decrease in the yields of major agricultural crops is expected. The area of the most productive agricultural lands is likely to reduce. Herewith, the area of less productive desert and meadow-steppe lands will increase by 17%. Armenia is already struggling with land degradation on most of its agricultural lands, but climate change is likely to accelerate degradation as extreme weather events become more frequent and destructive.

THE COUNTRY’S ROLE IN PREVENTING GLOBAL TEMPERATURE GROWTH

Emission reduction target:	633 million tons during 2015-2050
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Reduction commitments

Armenia has set its NDC at 633 million tons of CO2 equivalent from 2015 to [2050](#). The country has used a non-standard approach to setting the emission reduction target as countries typically set their NDC targets as a percentage of a base year. In addition, Armenia aims to achieve emission neutrality with regard to environment by 2050.

However, according to the forecast in the third national message on climate change, under the scenario involving emission reduction measures, emissions will increase from 11 million tons in 2020 to 15.5 million tons of CO2 equivalent in [2030](#). Thus, Armenia plans to increase its emissions level and its climate targets are not very ambitious.



Energy sector

Since Armenia is rather dependent on external energy markets, its energy policy prioritizes the [country’s](#) energy independence. The Energy Law of [2001](#) and the [2004](#) Law on Energy Saving and Renewable Energy, among other principles, include the efficient use of local energy sources and development of [RES](#).

The Armenia Renewable Energy and Energy Efficiency Fund aims to attract investment in this [sector](#). In addition, the Armenian Energy Development Strategy for 2020-2040 is being developed. The document will also focus on renewable energy, mainly [solar one](#). Moreover, the government announced that by 2030 Armenia intends to satisfy its energy needs exclusively with nuclear (30%) and renewable energy (70%) though

[hydroelectric power plants](#) are also included in RES. So far, no official documents have approved these goals. Currently, attention is paid to the development of wind and solar energy.

In 2020-2021, it is planned to launch 27 new solar [stations](#). However, RES development requires a lot of work as currently wind and solar energy account for less than 1% of the total [energy volume](#). Furthermore, Armenia does not plan to close thermal power stations — the energy they produce will be [exported](#) and, hence, related emissions will remain.



Energy efficiency

Armenia's legal framework strives to promote the principles [of energy efficiency](#). The government claims that it aims to reduce energy consumption by 38% by [2020](#), but no official documents reflect this. Moreover, Armenia's NDC assumes an increase in per capita emissions from 2.1 tons in 2010 to 5.4 tons during [2015-2050](#).



Other sectors

The NDC plans to reduce transport emissions, but Armenia has not yet developed a country-level strategy. There are a number of policies at other levels. For example, the General Plan of Yerevan has set a goal of developing electric and public transport, which should reduce this sector's emissions by 20% by [2020](#).

In general, despite some of the legal framework's strengths, the volume of emissions from industry, agriculture, and waste will [increase](#) by 2030 even under the scenario involving climate change mitigation measures.



Adaptation commitments

With regard to forestry, Armenia aims to restore 2-2.5 thousand hectares of degraded forest

[ecosystems](#). It plans to plant 10 million trees in [2020](#) and it wants to double the [forest](#) area by 2050. As for agriculture, the [Strategy](#) for Sustainable Rural and Agricultural Development for the period of 2010-2020 focuses on increasing products' competitiveness, cooperatives' development, etc. Apart from organic agriculture, the strategy pays little attention to agricultural practices that help reduce environmental damage.²



Position during COP25

At the conference, the Minister of Environment Erik Grigoryan represented Armenia. Armenia focused on the forestry sector — namely combating illegal logging, reforestation activities, etc. The Minister attended a high-level meeting on the role of forests in climate change, where he presented Armenia's policies in the forestry [sector](#).

CO2 tax and emissions trading system are [absent](#).

²The Strategy for Sustainable Rural and Agricultural Development of the Republic of Armenia for the period of 2010-2020, Appendix No 1 of the Government Decree RA No 1476-H from November 4, 2010

Vulnerability to climate change:

Climate change enhances storms, extreme temperatures, and floods in the country. According to estimates, a decrease in the yields of major crops due to unfavorable weather conditions can reach [50-60%](#) or more, while droughts will lead to a decrease in the yields of some crops by 70% or more.

The water sector is considered one of the most vulnerable to climate change in Belarus. Climate change effects on water resources in Belarus include an increase in winter river runoff and a decrease in spring-summer runoff, a decrease in the period of ice cover, a reduction in groundwater levels, and an increase in the risk of higher frequency and intensity of floods. Increased frequency and severity of natural disasters can jeopardize water supply and sanitation systems, which in turn poses a significant threat to public health.

THE COUNTRY'S ROLE IN PREVENTING GLOBAL TEMPERATURE GROWTH

Emission reduction target: **35% by 2030**



Reduction commitments

In the 2016 NDC, Belarus set a goal of reducing GHG emissions by 28% from 1990 level by 2030. This figure excludes land use, land-use change and forestry (LULUCF). The commitment also excludes the use of international carbon [markets](#). The figure may seem ambitious, but 1990, when production volumes were much higher and the volume of emissions was 139 million tons of CO₂ equivalent, is taken as a baseline.

As post-Soviet countries demonstrated emission reductions since the collapse of the Soviet Union in 1991, the target is actually lower than the 1990 baseline. In fact, Belarus planned to increase emissions compared to the year when it submitted its NDC (91.6 million tons of CO₂ equivalent in 2016). In 2017, emission level rose to 94 million [tons](#).

In 2019, Belarus raised its target to 35% by 2030 compared to [1990](#). The new target assumes a

slight decrease in emissions compared to 2016 to 90.5 million tons. The sectors that will experience major emission reductions include electricity, industry, agriculture, [etc.](#) However, according to the Belarussian NDC document, an increase in emissions is expected after 2030 with a peak in 2035.



Energy sector

The share of the energy sector in the total volume of GHG emissions is the largest — 59.3% in [2015](#) excluding LULUCF. Such a high share is partly explained by dependence on fossil energy sources for electricity production. For instance, thermal power stations (TPS) produced [98.6%](#) of electricity in 2018.

One of Belarus' goals in the energy sector is to ensure the country's energy security while reducing environmental burden. In particular, the State Program "Energy Saving" for 2016–2020 aims to increase the RES share in the total consumption of fuel and energy resources to [6%](#). The sustaina-

ble development goals for Belarus plan to increase the share of renewable sources to [8%](#) by 2030. Both goals are extremely unambitious as already in 2016 the indicator accounted for 5.7%.

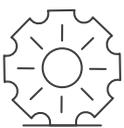
One of the ways to achieve energy goals is the commissioning of the Belarus nuclear power station in 2020, which, as government believes, will reduce emissions to 7 million tons [per year](#).

The Astravets NPS was launched in October 2020, and on November 9, the station was shut down due to malfunction. In the context of the country's social and political instability, numerous experts condemn the launch of the NPS as an extremely dangerous decision.



Energy efficiency

In terms of energy efficiency goals, energy intensity of GDP should increase until 2020, but it is planned that the indicator will decrease by 15% by 2030 compared to [2016](#). Herewith, the global sustainable development goal for energy efficiency is to double it.



Other sectors

Other sectors responsible for emissions include industry (5.9% in 2015 excluding LULUCF), agriculture (26.5%) and waste ([8.4%](#)). In the industrial sector, despite plans to reduce energy intensity of GDP, GHG emissions will grow — from about 4.5 million tons in 2016-2020 to 5.3-6.1 million tons in [2030](#).

In the transport [sector](#), there is a Strategy for Reducing the Harmful Effects of Transport (Mobile Sources) on the Atmospheric Air until 2020, which sets goals to reduce the share of transport in the total volume of pollutants from 72% to 65% and develop environmentally friendlier public transport. The strategy does not specify how much CO2 emissions from the transport sector should be reduced.



Adaptation commitments

Most of the adaptation measures are planned in forestry and agriculture. Belarus has developed a Strategy for the Adaptation of Forestry to Climate Change for the Period up to 2050. The anticipated results involve an increase in forests' sustainability and productivity, as well as an increase in the country's forest cover from [39.8%](#) in 2018 to 42.0% in [2030](#). In addition, a Strategy for Adaptation of Agriculture to [Climate](#) Change is being developed.

An additional adaptation measure is the new Law On the Protection and Use of Peatlands, adopted in 2019. The law provides for the sustainable [use](#) of peatlands, rehabilitation of disturbed bogs, and compensation for damage caused by their irrational use. Nevertheless, the law allows for peat extraction in natural, undisturbed bogs, and does not contain any new mechanisms for preserving peatlands in their natural [state](#).

Finally, in 2015, the government adopted the National Sustainable Development Strategy until 2030. The strategy provides for the introduction of the "green construction" principles, adaptation of agriculture to climate change, conservation of water resources, [etc](#). However, the strategy contains general principles rather than specific steps to achieve goals.



Position during COP25

The Minister of Natural Resources and Environmental Protection of the Republic of Belarus Andrei Khudyk spoke at the conference. The minister reaffirmed the commitment to reduce emissions by 35%, and named such measures as circular economy, energy efficiency in the housing sector, reducing energy intensity of the GDP, and developing electric transport as priorities.

The Minister stressed that fulfillment of the obligations undertaken by Belarus will not be sufficient to overcome the negative consequences of climate change at the regional level — joint efforts of the global [community](#) are needed. Belarus has also signed an agreement with Germany on cooperation in environmental protection. In addition, at bilateral meetings with

Estonia and the Russian Federation, cooperation in the field of waste management and common climate projects [were](#) discussed.

CO2 tax and emissions trading system are absent.

Vulnerability to climate change:

Water resources are [vital](#) for agriculture and electricity production in Kazakhstan; hydropower generates 13% of the total electricity volume. Glacial melting significantly contributes to river flow during the summer months, especially in the south. Higher temperatures will enhance glacier melting in the medium term, altering river flows and increasing the risk of flooding. The loss of glaciers will reduce mountain rivers' flow by mid-century, thus threatening water supplies for irrigation and food security. About half of Kazakhstan's rivers flow outside the country; hence, reduced access to water resources, together with increased demand, could strengthen political tensions in the region.

THE COUNTRY'S ROLE IN PREVENTING GLOBAL TEMPERATURE GROWTH

Emission reduction target: **15% by 2030**



Reduction commitments

In its NDC, Kazakhstan has set an unconditional goal of reducing GHG emissions by 15% by 2030 compared to 1990. Sectors that will ensure reduction include energy, agriculture, waste, land use, [and forestry](#). Like many post-Soviet countries, Kazakhstan actually plans to increase emissions compared to their current level, namely from 301 in 2015 to [331](#) million tons of CO2 equivalent in 2030 (excluding LULUCF).

In Kazakhstan, a number of documents that determine the long-term development of the country were adopted, such as the "Kazakhstan-[2050](#)" Strategy, the [Concept](#) on Transition of the Republic of Kazakhstan towards Green Economy, which the NDC refers to as the main confirmation of transition to the low-carbon development, and the Strategic Development Plan of the Republic of Kazakhstan until 2025.

Though these programs set goals for transition towards the green [economy](#) and its [decarbonization](#), as well as increasing GDP per unit of [GHG](#) emissions, they disregard intermediate

targets for reducing GHG emissions and do not set more ambitious end goals.



Energy

Kazakhstan produces most of its energy from fossil sources, namely coal (65% in 2016) and gas (20.5%). Herewith, 12.3% of energy was produced by hydroelectric power plants and only [0.9%](#) by RES. Hence, the energy share in total emissions is very high — 82% in [2015](#).

However, numerous strategic documents, including the "Kazakhstan-[2050](#)" Strategy, suggest that the RES share will reach 30% by [2030](#) and 50% by [2050](#).

These goals include energy from hydro- and nuclear power stations. Development of alternative energy is also considered in such documents as the Strategic Development Plan until [2025](#), the [Concept](#) on Transition of the Republic of Kazakhstan towards Green Economy, and the Concept for the Development of the Fuel and Energy Sector until [2030](#). In addition, in 2009, the Law On Support of the Use of Renewable Energy

Sources aiming at alternative energy development and attracting investment in the [sector](#) was adopted. The [Concept](#) on the Transition of the Republic of Kazakhstan Towards Green Economy also sets the goal of reducing CO2 emissions from the electric power industry by 15% by 2030 and 40% by 2050.



Energy efficiency

Energy intensity of Kazakhstan's GDP is rather high — it is twice the global average and four times higher compared to [OECD](#) countries. Kazakhstan plans to improve its indicators by 25% by 2020, by 30% by 2030, and by 50% by [2050](#) compared to 2008.

Kazakhstan also has a Law On Energy Saving and Increase of Energy Efficiency, which promotes the principles of efficient use of energy resources, in particular with regard to buildings and transport. Similarly, the Strategic Plan [2025](#) and the Concept for the Development of the Fuel and Energy Complex until [2030](#) consider improving energy efficiency.



Other sectors

Other sectors significantly contributing to total emissions include agriculture (9.6% in 2015), industrial processes and product use (6.4%), and waste ([2%](#)). In agriculture, there is a State Program for the Development of the Agro-Industrial Complex for 2017-2021, which does not focus on the development of sustainable agricultural practices, but sets a goal of reducing consumption of irrigation water per 1 ha of irrigated area by 20% compared to [2015](#).

The [Concept](#) on the Transition of the Republic of Kazakhstan towards Green Economy assumes development of sustainable agriculture through the six principles of "green" agriculture and increasing the sector's productivity by 1.5 times by [2020](#). With regard to industry, the Strategic Development Plan of the Republic of Kazakhstan until [2025](#) provides for industrial modernization and development of "green" technologies.

Finally, in the waste sector, the Strategic Plan until [2025](#) suggests implementation of the "polluter pays" principle and development of the waste recycling sector. In addition, the [Concept](#) aims to increase the share of recycled waste to 40% in 2030 and to 50% in [2050](#). However, current documents do not aim to reduce emissions from the above sectors.



Adaptation commitments

Currently, Kazakhstan is developing a National Concept on Adaptation to [Climate](#) Change. In 2015, the Strategy and Action Plan on Biodiversity Conservation until 2030 were adopted. They assume increasing the area of specially protected natural areas to 10% of the country's territory.

The [Strategy](#) also sets the task of approving a forest policy aimed at effective forest management in the face of climate change by 2020 and increasing the forest cover to 4.7% of the country's total territory by 2020 and 5% by 2030. The latter goal is hardly ambitious as when the Strategy was adopted, Kazakhstan's forest cover accounted for [4.6%](#).



Position during COP25

Kazakhstan was represented by a delegation headed by the Minister of Ecology, Geology and Natural Resources Magzum Myrzagaliev. The Minister participated in round tables on the following topics: "National Plans to Raise Ambitions by 2020", "Decarbonization of the Economy", "Building a Safe World", and "People at the Center of Climate [Action](#)".

Vice Minister of Ecology, Geology and Natural Resources Akhmetzhan Primkulov represented the country at the top level. In his speech, he emphasized the importance of water resources management in the context of adaptation to climate change and considered Kazakhstan's efforts to shift to the principles of "green" growth in economic development, introduction of the GHG emissions trading system, reducing energy intensity of GDP, and development of renewable [energy](#).

Emissions trading system

Kazakhstan is the only country in the region that has introduced the GHG emissions trading system. In 2013, a pilot phase that covered 178 companies from the energy, oil and gas, mining, and chemical sectors was launched. Together, these companies accounted for 55% of emissions. During the first phase, these companies obtained emission permits based on their historical emissions, namely 100% of 2010 emissions. Kazakhstan continues using the historical approach though there was a suggestion to shift to benchmarking, which would have improved the system's [efficiency](#).

Vulnerability to climate change:

The Republic of Moldova is prone to natural such disasters as droughts, floods, earthquakes, and landslides. These natural disasters can have a strong impact on agricultural production. Due to its dependence on climatic conditions, agriculture is the most vulnerable sector of the Moldovan economy to climate change. Natural hazards significantly affect rural population of Moldova, which makes up to 60% of the country's population and is heavily [dependent](#) on agriculture.

Moldova's water resources are sensitive to climate change. Due to the climate change, the country may face severe water shortages, in particular in the Raut basin, as well as in the upper and lower reaches of the Dniester. Transnistria is already experiencing water shortages and a decrease in ground-water's depth in unpolluted aquifers due to their overexploitation.

THE COUNTRY'S ROLE IN PREVENTING GLOBAL TEMPERATURE GROWTH

Emission reduction target: **70% by 2030**



Reduction commitments

In its NDC, Moldova commits to reduce GHG emissions by [70%](#) by 2030 compared to the 1990 baseline. However, Moldova is also a post-Soviet country and its industrial production and production of electricity and, consequently, emissions fell sharply after the collapse of the Soviet Union. If we compare this goal to the 2016 level when the NDC was submitted, emissions will increase. The main sectors that will ensure emission reductions include electricity, industrial processes and product use, agriculture, [etc.](#)

The process of accession to the EU plays an important role in the development of environmental legislation in Moldova. In 2016, the Low Emissions Development Strategy until 2030, which is provided for by the Association Agreement, was adopted. The document outlines the main directions and indicators of economic development.³ Despite all the planned changes, the Strategy still envisages an increase in total emissions compared to

2020: from 13.7 mega tons to 15.9 mega tons of CO2 in 2030. Emissions will grow in almost all major sectors compared to 2020.

In addition, Moldova approved the Environmental Strategy for the years 2014-2023, which set intermediate targets for emission reductions in the same sectors. One of the tasks is to increase forest areas to 15% of the country's territory by planting forests on 150 thousand hectares of degraded land.



Energy sector

The energy sector accounts for the largest share of emissions ([65%](#)). Moldova's economy is highly energy intensive (about three times more energy [intensive](#) than other EU countries).

The government has adopted several documents that set goals for reforming the sector. For example, the Energy Strategy of Moldova to 2030 plans to achieve 20% of renewable energy in the

³ «Low Emission Development Strategy until 2030», Appendix No 1 to Government Decree №1470 from December 30, 2016

energy balance [by 2020](#). In October 2020, the Moldovan government announced a [revision](#) of the Low Emission Development Strategy until 2030, where it plans to achieve a target of 70% of unconditional and 88% of conditional reduction in GHG emissions compared to 1990.



Energy efficiency

The National Energy Efficiency Program 2011-2020 sets intermediate and long-term goals to reduce consumption, and one of them is 20% energy savings by [2020](#).



Other sectors

The 2030 Low Emission Development Strategy set a target to reduce emissions by 2030: by 77% from buildings; by 45% in the industrial sector; by 37% in agriculture; by 38% in the waste sector; and by 30% in the transport sector. The transport sector also has other documents setting respective priorities. For instance, according to the Energy Strategy, Moldova will increase the volume of biofuel used, up to 10% of the total by [2020](#).



Adaptation commitments

In 2014, Moldova adopted the Climate Change Adaptation Strategy, which set the goal of reducing climate change risks by 50% by 2020. Interestingly, the strategy does not identify this goal's elements. The document also provides for increased adaptation in the following six sectors: agriculture, forestry, water resources, health-care, energy, and [transport](#).

Finally, the government approved the National Agriculture and Rural Development Strategy 2014-2020. However, it does not pay enough attention to the sustainable use of natural resources, allocating 15% of the total budget to this section.

Though the strategy considers applying sustainable agricultural practices and adapting to climate

change, it mostly focuses on promoting exports and increasing the [sector's](#) competitiveness.



Position during COP25

Minister of Agriculture, Regional Development and Environment Ion Perju represented Moldova at the conference in Madrid. The minister said that Moldova is currently revising its NDC and will significantly increase the reduction target in the new document. The minister also emphasized the country's need of external financing to adapt to [climate change](#).

CO2 tax and emissions trading system are absent.

Vulnerability to climate change:

The Republic of Tajikistan is prone to earthquakes, floods, droughts, avalanches, landslides, and mudflows. The most vulnerable areas are glacier-dependent river basins, which provide fragile mountain ecosystems with hydropower and water for irrigation, and isolated mountainous and riverine forests, which makes them prone to landslides and land degradation. The influence of climatic factors is already [observed](#) in spring, when precipitation causes soil crusts, washing out of crops, and irreparable damage to agricultural produce. Extremely high air temperatures and droughts can inhibit plant development while leading to fires and enhancing desertification.

Projected temperature changes can reduce reservoir water levels, glacier storage, and snow cover in mountains. Many local communities in Tajikistan are envisaged to suffer from critical water scarcity.

THE COUNTRY'S ROLE IN PREVENTING GLOBAL TEMPERATURE GROWTH

Emission reduction target: **10%-20% by 2030**



Reduction commitments

Tajikistan has set a flexible NDC target, pledging not to exceed 80-90% of the [1990](#) emissions. Thus, a minimum reduction will account for 10-20% compared to the base year or a decrease from 25.5 to 20.4-23 million tons of CO2 [equivalent](#).

The conditional target Tajikistan will be able to achieve using international finance is 25-35% compared to 1990. The major sectors that will face reductions include energy, water resources, industry and construction, agriculture and forestry, and [transport](#).

Like reduction targets in many post-Soviet countries, Tajikistan's target assumes an increase in emissions compared to the current level. For example, in 2014 emission level was 9.1 million tons of CO2 [equivalent](#) excluding LULUCF. Hence, Tajikistan can increase emissions to 23 million tons and still comply with its commitment. In its NDC, the country

prioritizes adaptation rather than reduction.

Generally, major strategic documents do not set intermediate emission targets. In particular, though the National Development Strategy of the Republic of Tajikistan for the period up to 2030 considers sustainable development goals in general, it mostly focuses on the social and economic aspects.

The strategy excludes indicators for reducing emissions or increasing the share of RES except for [hydroelectric power stations](#) though the document provides for innovative [economic](#) development, which could have implied emission reduction. The medium-term Development Program of the Republic of Tajikistan for [2016-2020](#) also mainly considers social reforms and improving economic competitiveness.

On December 8, the Committee on Environmental Protection, as coordinator of the United Nations Climate Change Convention, announced the update of Tajikistan's NDCs.



Energy sector

The share of the energy sector in GHG emissions in Tajikistan is one of the highest — in 2014 it amounted to 28% of the total emissions and 74% of [CO₂](#) emissions. Renewable energy, apart from hydropower, is undeveloped. Its share in total electricity consumption is less than [1%](#). However, Tajikistan depends on hydroelectric energy as it is the cheapest energy type in the country. Hydroelectric power stations provide more than [90%](#) of all energy in Tajikistan.

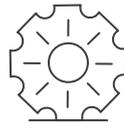
There are plans for RES development, excluding hydroelectricity, but they are non-ambitious. For example, the Sustainable Energy for All program aims to increase the RES share by 20% by 2030 compared to the current [level](#). The medium-term Development

Program of the Republic of Tajikistan for 2016-2020 prioritizes alternative energy development to diversify energy sources. However, the Program also plans to develop [TPS](#), so it hardly aims only at renewable energy. Finally, Tajikistan has a Renewable Energy Development and Small Hydropower Plants Construction Program for 2016-2020, which determines funding sources for and development of specific [facilities](#).



Energy efficiency

GHG emissions per capita are the lowest in the region and among the analyzed countries — [0.6](#) tons of CO₂ equivalent per [capita](#). According to the NDC, this figure will account for 1.7-2.2 tons of CO₂ equivalent by [2030](#), which can mean an increase compared to the current level. In addition, within the Sustainable Energy for All program, it is planned to reduce energy losses in heat and energy networks by 20% and 10% respectively and to increase energy efficiency of the economy by at least 20% by [2030](#).



Other sectors

Apart from the energy sector, other sectors making the largest contribution to GHG emissions include agriculture (50% in 2014 without LULUCF, in CO₂ equivalent), industry and product use (13%), and waste [\(9%\)](#).

The government has adopted a number of strategic documents in these sectors. In particular, the Program on Agricultural Reform 2012-2020 assumes development of agricultural practices responsive to [climate](#) change. There are also transport and waste programs, but they similarly do not set targets for reducing GHG emissions.



Adaptation commitments

In its NDC, Tajikistan prioritizes adaptation in the fight against the [climate](#) change. There are programs and strategies for agriculture adaptation, preservation of the country's glaciers, etc. In addition, the NDC of Tajikistan mentions systematic restoration of [forests](#), though the Development Strategy for the Forest Sector of the Republic of Tajikistan for the period 2020-2030 was only drafted and its current status is unknown.

The National Strategy for Adaptation to Climate Change up till 2030 has also been adopted recently. It mainly regards energy production, water resources, transport, and agriculture. The document suggests different adaptation scenarios and possible investment [projects](#).



Position during COP25

At the conference in Madrid, Chairman of the Committee for Environmental Protection Gulmakhmadzoda Davlatshokh Kurbonali represented Tajikistan. The Chairman participated in bilateral meetings with the German Society for International Cooperation (GIZ), the Agricultural and Food Organization (FAO), the Climate Finance Fund (CIF), and others. The delegation of

Tajikistan also took part in the working group discussion of the second conference at the International Decade for Action “Water for Sustainable Development, 2018-[2028](#)”.

CO2 tax and emissions trading system are absent.

Vulnerability to climate change:

The impact of climate change is making Uzbekistan increasingly vulnerable to droughts, high temperatures, heat waves, heavy precipitation, mudflows, floods, and avalanches. Droughts can occur with increasing frequency due to a decrease in river flow, in particular from the Amu Darya and Syr Darya rivers. Drought [risks](#) are high.

Agriculture is a priority sector of the country's economy that ensures food security. Irrigated agriculture is the basis of agricultural production and, therefore, irrigation uses [about 90%](#) of the surface water in Uzbekistan. Currently, water scarcity and land degradation threaten the sector's productivity. While reducing irrigation water availability, rising temperatures also pose a significant threat to the country's agricultural sector.

THE COUNTRY'S ROLE IN PREVENTING GLOBAL TEMPERATURE GROWTH

Emission reduction target: **10% per unit of GDP by 2030**



Reduction commitments

Uzbekistan has set a target to reduce GHG emissions by 10% per unit of GDP by 2030 compared to 2010. Such sectors as industry, energy, and [transport](#) will ensure this reduction. However, the draft Concept of Comprehensive Socio-Economic Development of the Republic of Uzbekistan until 2030 projects GDP per capita to triple by [2030](#). If GDP per capita grows threefold, a 10% reduction in GHG emissions per unit of GDP will be insufficient to achieve an overall reduction in emissions compared to the current level.

Moreover, the level of Uzbekistan's emissions is already relatively high in the region — in 2016 it accounted for [207](#) million tons of CO₂ equivalent excluding LULUCF.

At the same time, such documents as the Main Directions of Transition to a Resource-Efficient

Development Model and the Low-Carbon Development Strategy: Target Indicators to Reduce Energy Consumption/Greenhouse Gas Emissions in Key Sectors of the Economy of [Uzbekistan](#) are being currently developed and discussed.

In addition, the Strategy for the Transition of the Republic of Uzbekistan to a Green Economy, which aims to achieve economic growth with a minimum [emission level](#), was adopted.



Energy sector

The share of the energy sector in the total emission volume is the highest — in 2012 it accounted for [82%](#). Uzbekistan heavily relies on fossil fuels for energy generation, namely natural gas (85% of the energy balance in 2013), petroleum products (7%), and coal (3%). The share of hydropower was [5%](#), though by 2016 it grew to [12.7%](#). A number of strategic documents in

Uzbekistan set the goal of renewable energy development. For instance, a realistic scenario of the draft Low-Carbon Development Strategy envisages an increase in the RES share from 14% in 2014 to 16% in 2030 and [19%](#) in 2050. The realistic scenario also suggests that emissions from the electric power industry will increase from 29 million tons of CO2 equivalent in 2014 to 34 in 2030 and 41 in [2050](#). Thus, all scenarios, including the optimistic one, assume an increase in emissions.

Herewith, current RES indicator includes only hydropower and the target indicator also implies its development. In particular, the Presidential Resolution “On Program of Measures for Further Development of Hydropower Generation for the Period of 2017-[2021](#)” and the Concept of Development of the Hydropower Industry of the Republic of Uzbekistan for 2020-2024 were adopted.

In addition, in [2019](#) the Law On the Use of Renewable Energy Sources, which exempts installations’ manufacturers and renewable energy consumers from paying taxes for a certain period, was adopted. Finally, the Concept for Development of [Nuclear Energy](#) in the Republic of Uzbekistan for the Period 2019-2029 was approved.



Energy efficiency

One of Uzbekistan’s priorities is to halve energy intensity of GDP by [2030](#). A realistic scenario of the draft Low-Carbon Development Strategy plans to reduce losses in electrical networks from 20% in 2014 to 15% in 2030 and 10% in [2050](#).

Other documents aimed at improving energy efficiency in various sectors include the Presidential Resolution on the Program of Measures for the Further Development of Renewable Energy, Increase of Energy Efficiency in the Sectors of the National Economy and Social Sphere for the Period of 2017-[2021](#), the Presidential Resolution on Accelerated Measures to Enhance Energy Efficiency of Sectors of the Economy and the Social Sphere, implementation

of energy-saving technologies and development of [RES](#), and others.



Other sectors

Other sectors contributing to GHG emissions include agriculture ([10.5%](#) in 2012 excluding LULUCF), industry (3.8%), and waste (3.8%). Strategic documents in other sectors include the Strategy for the Development of the Transport System until [2035](#), which assumes development of transport modes using alternative fuel sources or electric motors and other measures to reduce transport’s environmental impact.

The Strategy also aims to reduce CO2 emissions from different transport modes. For example, emissions from cars per ton-kilometer⁴ should decrease by 25% by 2025 and by 30% by [2035](#) compared to 2018. In addition, gas share in the total car consumption should rise to 70% by 2025 and 80% by [2035](#).

Regarding the industrial sector, the Strategy for the Transition to a Green Economy for the 2019-2030 Period prioritizes improving efficiency of production and [resource](#) use. Finally, the Strategy for the Development of Agriculture for 2020-2030 aims to reduce emissions from this sector by 30% until 2025 and by 50% until [2030](#).



Adaptation commitments

Uzbekistan emphasizes the importance of the country’s adaption to [climate](#) change, including agriculture, water management, and mitigation of the consequences of the Aral Sea disaster. Currently, Uzbekistan lacks a comprehensive adaptation strategy. However, some documents set goals to enhance adaptation and mitigation of the climate change consequences.

For example, the [Strategy](#) for the Transition to a Green Economy for the 2019-2030 Period suggests a number of measures with regard to water, agriculture, forestry, and waste. In particular, in agriculture the goal is to achieve a neutral land degradation balance as well as introduction of drip irrigation technologies and other sustainable practices.

⁴ Ton-kilometer is a unit of measure used in goods transportation; it combines two indicators: the number of tons of cargo and distance in [kilometers](#).



Position during COP25

At the conference, Uzbekistan was represented by a delegation headed by the first deputy of the Hydrometeorological Service Center under the Cabinet of Ministers Bakhriddin Nishanov. The Deputy spoke at the high-level segment meeting, where he told about the Strategy for

the Transition of the Republic to a Green Economy for the 2019-[2030](#) Period. In addition, Uzbekistan participated in negotiations with international donors such as the UN Green Climate Fund, the UN Food and Agriculture Organization, and the Regional Environmental Center for Central Asia (CAREC), as well as delegations from Germany and Italy. During the meetings, potential cooperation in the area of [climate](#) change was discussed.

CO2 tax and emissions trading system are [absent](#).

Vulnerability to climate change:

One of the negative effects of global warming is increased [aridity](#) on a vast territory of Russia. Droughts have become more frequent not only in those regions where precipitation is projected to decrease, but also in areas facing increased precipitation due to climate change.

Water scarcity is predicted for the southern regions of the European part of Russia. Water deficit is expected to be particularly acute in the coming decades.

Amid the temperature rise, precipitation decrease in summer creates significant challenges for moisture balance in forests and increases [the risk](#) of forest fires.

The permafrost zone, which occupies almost two-thirds of Russia's territory, is a giant natural reservoir of methane. Climate change and permafrost melting threaten the release of large amounts of methane into the atmosphere, which can accelerate global warming.

THE COUNTRY'S ROLE IN PREVENTING GLOBAL TEMPERATURE GROWTH

Emission reduction target: **25-30% by 2030**



Reduction commitments

In its NDC, Russia has committed to reducing emissions by [25-30%](#) compared to 1990, with the maximum possible consideration of forests' absorption capacity. Sectors that will face reductions include energy, industrial processes and product use, agriculture, land use, land-use change, forestry, and [waste](#). The goal set by the Russian Federation is extremely weak, since it does not imply a reduction, but rather allows the country to increase emissions by more than 36% compared to the current level.⁵ In addition, on November 4, 2020, a Presidential [Decree](#) approving the goal of limiting GHG emissions by 2030 by 70% compared to the 1990 baseline was issued, which actually means an increase in GHG by 18% by 2030.

Russia has a Climate [Doctrine](#) that outlines the general principles and objectives of the climate

policy but disregards specific reduction targets. A Comprehensive Plan for Implementing the Climate Doctrine until 2030 and a Federal Law on State Regulation of Greenhouse Gas Emissions are currently being developed.⁶

In addition, Russia's Long-Term Low-Carbon Development Strategy up to 2050 is currently being approved. This strategy aims to cut emissions by 33% of the 1990 emissions by the end of 2030. Russia is planning to achieve carbon neutrality by the end of 2100. However, this strategy does not anticipate any actual reduction in emissions — based on various scenarios, emissions will continue growing compared to their current level by 25.5% and 2% by 2050 respectively.

Herewith, by 2030, emission volumes will continue growing and there are no meaningful differences between different scenarios during this [period](#). Thus, the strategy does not assume any significant changes to economic

⁵ "Russia and the Paris Agreement", Romanovskaya A. A., 2020

⁶ "On the Concept of Public Administration and Monitoring in the Area of Climate Change in Russia", Romanovskaya A. A., 2020

development and is to some extent demonstrative.

In addition to the Low-Carbon Development Strategy, other documents expected to foster emissions regulation are currently being drafted. Previous Russia's plans to diversify its economy and reduce its dependence on fossil fuels failed. The lowest emission levels were observed in [1998](#) and thereafter they grew at the average annual rate of 1-1.5%.



Energy sector

The energy sector is the largest contributor to Russia's total volume of GHG. In 2015, it accounted for 2.2 gigatons of CO₂-equivalent or [83%](#) of total emissions, excluding LULUCF. Russia's underdeveloped renewable energy sector is one of the reasons for the energy sector driving high emission levels.

Renewable energy (excluding hydro energy) made up [0.2%](#) of the total electricity generated in 2019. Meanwhile, fossil fuels, namely natural gas (49.7%) and coal (15.2%), are the major contributors to energy production. The overall share of carbon-free energy sources amounts to about [34.5%](#) but is mainly comprised of hydro (16%) and nuclear energy (18.3%) rather than RES.

Despite the low share of alternative energy, it is being developed. For example, a Decree On the Mechanism for Stimulating the Use of Renewable Energy Sources in the Wholesale Electricity and Capacity Market was adopted in 2013. In 2018, a Decree On the Promotion of the Use of Renewable Energy Sources, which eliminated excessive barriers to designing, construction, and usage of [RES](#) facilities, was issued.

The draft Energy Strategy until 2035 also provides for the development of alternative [energy](#). The draft sets the same emission reduction goal as the NDC — no more than 70-75% of the 1990 level in 2030. However, in 2018 total emissions constituted about 50% of the [1990](#) level.



Energy efficiency

Energy intensity of Russian GDP is [46%](#) higher than the world average. Russian Federation's Long-Term Low-Carbon Development Strategy up to 2050 envisages an increase in the energy efficiency of the Russian economy. In particular, according to the basic scenario, carbon intensity of Russian GDP will decrease by 9% by 2030 and by 48% by 2050 compared to [2017](#).

The draft Energy Strategy until 2035 also sets energy efficiency goals, namely reduction of energy losses in the electricity grid from 10.6% in 2018 to [7.3%](#) in [2035](#). However, it should be noted that previous state program on improving energy efficiency by 2020 was not fulfilled. Instead of the planned 40% increase in energy efficiency, only 12% were reached.



Other sectors

Other sectors responsible for GHG emissions include industrial processes and product use (7.9% in 2015), agriculture (5%), and waste ([4.3%](#)). Though the legislative framework hardly fully covers the need for emission reduction in these sectors, some documents set respective goals. For instance, one of the goals outlined by the Concept of Long Term Socio-Economic Development of the Russian Federation until 2020 is production modernization through environmentally friendly and energy-saving [technologies](#). The Transport Strategy up to 2030 assumes development of transport modes using environmentally friendly [fuels](#). In agriculture, the program Developing Agricultural Land Reclamation in Russia in 2014-2020 envisages an increase in the sector's productivity and sustainability in the face of [climate](#) change. However, these documents do not indicate how much their implementation will reduce emissions.



Adaptation commitments

Russia has recently enacted a national action plan for the first stage of adaptation to climate change in the period till 2022. The plan deter-

mines a system of economic and social measures aimed at adaptation to climate change. [Sectoral](#) adaptation targets will be developed by the end of 2020. Regarding the forest sector, the Presidential Executive Order on National Goals and Strategic Objectives through to 2024 provides for preservation of biodiversity, expanding specially protected natural areas to 5 million hectares, and reforestation of all the logged or dead [forest areas](#).

The Strategy for Low-Carbon Development to [2050](#) also assumes full reforestation of logged and dead forest areas. A Plan on Reduction of Greenhouse Gas Emissions from Deforestation and Forest Degradation, Enhancing Conservation Measures, Sustainable Management and Increasing Carbon Stocks in Forests is also being developed.



Position during COP25

Russia was one of the latecomer countries to ratify the Paris Agreement in 2019. At the conference, Russia was represented by a delegation headed by adviser to the president on climate issues Ruslan Edelgeriyev. Russia did not voice its intention to increase its target on [emission](#) reduction. In addition, according to Alexey Kokorin, head of the WWF Russia program “Climate and Energy”, Russia was waiting for adoption of rules regulating business environment. He also stated that Russia’s position regarding assistance to developing nations is [neutral](#). Russia is generally not very [active](#) at climate conferences.

CO2 tax and emissions trading system are [absent](#).

Уязвимость страны к изменению климата:

The effects of climate change make Ukraine much more vulnerable to droughts, high temperatures, heat waves, heavy precipitation, mudflows, and floods. The most common natural disasters involve extreme precipitation, which can cause mudflows and flood large areas of agricultural land, homes, and industrial buildings. Climate change is expected [to increase the risk](#) and severity of natural disasters in Ukraine due to higher temperatures, as well as extreme precipitation, prolonged heat waves, and water shortages. In recent years, the number of natural disasters in Ukraine has increased, and in many cases, they are considered catastrophic, leading to loss of life and significant economic losses.

The availability of water resources in Ukraine has been aggravated in recent years, the number of floods is also rising, about 27% of the country's territory is located and almost a third of its population live in the affected areas. Changes in precipitation levels and temperature rise caused by climate change can negatively affect water resources. It is expected that as drought periods become longer, pressure on water resources will escalate. This can increase the vulnerability of both agriculture and hydropower.

THE COUNTRY'S ROLE IN PREVENTING GLOBAL TEMPERATURE GROWTH

Emission reduction target: **40% by 2030**



Reduction commitments

Upon ratification of the Paris Agreement Ukraine committed to reduce GHG emissions by 40% by 2030 compared to 1990. Sectors that will experience major emission reductions include energy, industry, agriculture, waste, and [land use](#). Hence, in 2030 GHG emission level of Ukraine might amount to 558 million tons of CO2 equivalent, which constitutes 60% of the [1990](#) level (excluding land use). Given that in 2015 emissions amounted to [323](#) million tons of CO2 equivalent, Ukraine can actually increase emissions by more than 1.5 times and still fulfil its obligation. Ukraine's climate target is extremely unambitious. That was the reason why the NDC revision process was initiated in 2019. The updated target has not yet been approved.

In 2018, the Government developed Ukraine [2050](#) Low Emission Development Strategy, which outlines several possible scenarios for the devel-

opment of energy and industrial policies as the main sectors responsible for GHG emissions. Also, the National Energy and Climate [Plan](#) 2021-2030 is being developed.



Energy sector

The share of energy sector in the total volume of emissions in 2018 accounted for [66.3%](#) according to the draft National Annual Inventory of Anthropogenic Emissions for 1990-2018. Most of the energy in Ukraine is produced from such fossil sources as coal ([29%](#) in 2017), gas (27%), and petroleum products (14%).

While nuclear energy occupies a high share in the country's energy balance – 25%, RES accounted for only 4% in 2017. The government has adopted a number of alternative energy development plans. For example, the Low Emission Development Strategy until [2050](#) analyzes several economic development scenarios depending on the intensity of implementation of policies aimed

at de-carbonization of energy and industry. However, four of the five scenarios, which reflect different degrees of the green policies' aggressiveness, assume an increase in energy and industry-related emissions by [2050](#) compared to 2015.

Renewable energy is also supported by both the [EU-Ukraine](#) Association Agreement and the Sustainable Development Strategy "[Ukraine-2020](#)". In addition, the Energy Strategy of Ukraine until [2035](#) assumes an increase in the renewable energy share in the total primary energy supply by 25% by 2030, while solar and wind energy will account for about 10%. In addition, the National Action Plan for Renewable Energy for the Period Until 2020 aims to achieve an 11% share of RES energy in final energy consumption by [2020](#).

One of the main tools for stimulating the renewable energy sector is the "green" tariff. Under this tariff, the state purchases electricity from RES producers, which began to operate before 2020. [This tariff](#) is valid until 2030 and is set separately for each form and type of energy, but should not be lower than the minimum tariff.

Ukrainian renewable energy has been actively developing over the past 5 years. The capacity of stations operating under the "green" tariff has increased from 1 GW in 2014 to 7.6 GW as of the 1st quarter of 2020. However, the untimely decisions taken by authorities led not only to technical problems with the connection of new facilities to power grids, but also to non-payment of the "green" tariff to the generating companies. In the summer of 2020, tariffs for existing photovoltaic power stations and wind farms were reduced retrospectively and restrictions were set for new facilities.

At the beginning of 2020, the government presented a draft Concept of Green Energy Transition of Ukraine by 2050, which states that it is possible to produce 70% of electricity from RES by [2050](#).



Energy efficiency

In 2015, energy intensity of Ukraine's GDP exceeded the global estimate 2.2 times, OECD countries' estimate 2.6 times, and the [EU](#) estimate 3.2 times. The Energy Strategy of Ukraine sets the goal of reducing GDP energy intensity by more than two times by [2035](#). The Strategy also plans to reduce power grid losses from 12% in 2015 to 7.5% in 2035. Other documents considering measures to improve energy efficiency include the [EU-Ukraine](#) Association Agreement, a draft [National](#) Energy Efficiency Action Plan until 2030, the Strategy for Sustainable Development "[Ukraine-2020](#)", and the 2050 Low Emission Development [Strategy](#).



Other sectors

According to the Draft of the Latest National Inventory of Anthropogenic Emissions, in 2018 the sectors making the most significant contribution to total emissions included industry (16.1%), agriculture (13%), and waste ([4.6%](#)). There are strategic documents suggesting measures that can reduce emissions in these sectors. However, in general, they do not set specific targets for reducing emissions.

One such document is the [2050](#) Low Emission Development Strategy. In addition to energy and industry sectors, the Strategy mentions policies to reduce emissions in agriculture and waste. For instance, in the waste sector, it is planned to reduce waste volumes by extending producer responsibility and recycling stimulation. The National Waste Management [Strategy](#) until 2030 also aims to develop this direction. In addition, in the agriculture industry, the Strategy for the Development of Ukrainian Agriculture till [2020](#) aims to apply agricultural practices assuming a more rational use of resources.

Regarding other sectors, the National Energy Efficiency Action Plan until [2020](#) includes measures to attract investment in thermal modernization of buildings and to develop energy-efficient transport. Finally, the Transport Strategy [2030](#) also prioritizes sustainable transport. Importantly, the above documents do not set sectoral targets for reducing GHG emissions.



Adaptation commitments

Ukraine does not emphasize adaptation in its NDC. Nevertheless, several strategic documents have been passed in this domain. In the forestry sector, a [draft](#) of the Forest Sector Development Strategy until 2022 was approved, one of its objectives being the improvement of [forest cover](#). The Low Emission Development Strategy [until 2050](#) also entails an increase in forest area, although all three scenarios of the sector's development foresee that the aggregate capacity of forests to absorb GHG will decrease by 2050 compared to 2015. In the agriculture sector, the Strategy for Adaptation to Climate Change in Agriculture, Forestry and Fisheries until [2030](#) is being developed.



Position during COP25

A delegation headed by the Minister of Energy and Environmental Protection of Ukraine Oleksiy Orzhel represented Ukraine at the conference. In his statement, the Minister confirmed the country's focus on the "[green](#) energy course until 2050", intention to tax fossil energy sources, as well as to increase the emission tax and close unprofitable state coal [mines](#). Ukraine also opposed the [transfer](#) of Kyoto Protocol quotas to the Paris Agreement. As of 2020, the "green course" was not supported by the authorities' actions and the joint Ministry of Energy and Environmental Protection was split again.

CO2 tax and emissions trading system

Ukraine has a CO2 tax for stationary sources. In 2018, the tax rate was increased, but it is still one of the lowest in the world (€0.3 per ton of CO2). In addition, the Ministry plans to introduce a GHG emissions trading system in accordance with the [EU-Ukraine](#) Association Agreement by 2025.

Conclusion

Every year countries of the Eastern Europe, Caucasus, and Central Asia region become increasingly vulnerable to climate change. The climate crisis will have significant socio-economic consequences for the region in the long run, but certain consequences, like increased frequency of extreme events and weather disasters, are already being felt.

Every country of the region has committed itself to constrain global temperature growth at the 1.5-2.0°C level by the end of the century. The next 10 years will be decisive in the attempt to reduce climate change impact and may become a failure for humanity due to the lack of systematic climate policies in each country.

No country considers emission reduction by 2030 in its approved NDCs and plans. Countries must revise their short-term and long-term emission reduction targets to ensure sustainable development and improvement of the socio-economic situation. Carbon neutrality should become the primary long-term goal by 2050.

In the energy sector, where a significant share belongs to fossil fuel combustion, it is necessary to shift the priority to RES development. Every country must set a deadline for fossil fuel phase-out. The timely launch of the decarbonization process will enable a “just” transformation for regions while considering their social and economic changes. Renewable sources will allow replacing fossil ones while significantly reducing emissions.

Energy efficiency is an important factor of achieving climate targets and it also has a great potential in the region’s countries. Increasing energy efficiency of buildings and heat supply systems will help reduce resource consumption.

In almost every EECCA country agriculture plays a crucial role in the economy; this sector is also the most vulnerable to extreme climate conditions, which will have a negative impact on the economy and food security in the future. Development support of small-scale farming and sustainable agriculture will reduce the sector’s emissions and increase food security. Implementation of practical adaptation measures in villages, which will increase the sector’s sustainability, should be an important element.

Systemic adaptation to climate change should become a vital component of climate policy in

EECCA countries. A comprehensive approach, in which local adaptation measures are part of coordinated national adaptation plans, is required.

The region’s countries hardly use any market mechanisms that are being applied globally. A high CO2 tax and/or emissions trading system may contribute to reducing emissions from facilities, as well as creating additional funding for emission mitigation or adaptation measures.

To implement an ambitious climate policy, public participation in decision making is crucial.

This will allow creating and implementing effective state programs that will have practical benefits and will consider different stakeholders’ interests. In 2020 public representatives prepared a number of documents, which will contribute to raising climate targets in EECCA countries:

- The 2030 Climate Goal [Roadmap](#) elaborated by civil society in Ukraine
- The [vision](#) of Georgian civil society on “Georgia’s draft Nationally Determined Contribution (NDC)”
- Study on the potential for public participation in the NDC review processes, in Kyrgyzstan
- Position of CAN EECCA members from Central Asia on [Green Recovery and Climate Action in Central Asia](#).

Countries that have carbon tax or ETS

Yes

No





Climate Action Network Eastern Europe,
Caucasus and Central Asia includes 58 NGOs from the region
and is a part of the bigger network of more than 1300 CSOs



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