

# Support Climate Policy Cooperation with the EU's Eastern Partners

(Russia, Eastern Partnership, Central Asian countries)



Sample deliverables produced for  
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# 1. Summary leaflet (English, Russian)





## KYRGYZSTAN CLIMATE FACTS AND PROCESSES

### POLICIES AND PROCESSES

**12 MILLION tCO<sub>2</sub>e**  
**2 TONNES PER CAPITA**

**2026 targets**  
Reduce GHG emissions by 20 per cent (with adequate support for actions)

**2030 targets**  
Reduce GHG emissions by 30 per cent (with adequate support for actions)

**Adaptation processes**  
Policy and regulatory framework for adaptation  
Sectoral adaptation plans  
Climate change impact and vulnerability assessment  
Climate change risk management  
Climate change resilience building

**GHG inventory of all sectors & gases**  
First national communication to UNFCCC (2012)  
Second national communication to UNFCCC (2016)  
Third national communication to UNFCCC (2020)

**CLIMATE ACTIONS**  
Low overall and per capita GHG emissions  
Considerable attention to adaptation and loss and damage estimates  
Regional action plans

**CLIMATE FINANCE**  
Very limited own resources  
Strong reliance on Russian energy investments  
EDRD  
GEF  
Pilot Program on Climate Resilience  
ADB

### Energy and emissions

**Renewable energy installation and plans**

**Energy and emissions**

**Policies and institutions**

Kyrgyzstan has not yet adopted comprehensive climate legislation, and a low-carbon development strategy which is also the way to diversification strategy, which is also the way to diversification strategy, which is also the way to diversification strategy...

### Impacts of climate change

Increased risks to water availability and growing uncertainty of water availability

Areas most exposed to water and climate risks

Increased water stress and increased risks to water availability

Areas most exposed to water and climate risks

### Kyrgyzstan scorecard

**Country's share of global emissions**

**Country's emissions per capita**

**General climate action ambition**

**Mitigation commitment:**

- Emissions reduction
- Decoupling from population growth
- Decoupling from economic growth
- Renewable energy
- Adaptation action

**National climate policy actors**

**Policy leadership:** Coordination Commission on Climate Change

UNFCCC focal point: State Agency on Environmental Protection and Forestry

GHG inventory and projections: Climate Change Centre

CCF focal point: State Agency on Environmental Protection and Forestry

### Greenhouse gas emissions and projections for Kyrgyzstan

Million tonnes

1990 1992 1994 1996 1998 2000 2002 2004 2006 2008 2010 2012 2014 2016 2018 2020 2022 2024 2026 2028 2030

Energy Industrial processes Agriculture Waste Land use change and forestry

Estimate and projections are based on Kyrgyzstan's NDC

### Climate actions

Kyrgyzstan has prepared its first national communication although it is not yet submitted to the UNFCCC. According to data contained in the second national communication (2016), absolute and per capita emissions remained low (about 2.2 tonnes CO<sub>2</sub>e per person and 0.25 tCO<sub>2</sub>e).

### Climate finance

Kyrgyzstan's own financial resources for tangible climate action are limited.

Due to Kyrgyzstan's climate vulnerability, it was accepted as a participant in the Pilot Program for Climate Resilience (PPCR). The PPCR supports climate resilience and energy system modernization and energy efficiency. Also the ADD provides strong support to Kyrgyzstan's power sector, such as reconstruction of the Taldyk-Kyrgyzstan power plant and assistance to the development plan of the energy sector.

The World Bank provides support for hydro-meteorological services to access, improve and manage climate data, and for sustainable land management under climate change. UNDP provides support for national climate reporting, preparation of national adaptation priorities, and climate risk management.

### Sources of information for the scorecard

National strategy for sustainable development of the Kyrgyz Republic for 2012-2027. Theory and practice of adaptation to climate change in the energy sector. UNFCCC. 2016. NDCs (2016).

UNFCCC. 2016. NDCs (2016).

UNFCCC. 2016. NDCs (2016).

## TAJIKISTAN CLIMATE FACTS AND POLICY

### POLICIES AND PROCESSES

**8 MILLION tCO<sub>2</sub>e**  
**1 TONNES PER CAPITA**

**Policy framework**  
National climate change action plan (2013, regular updates)  
National climate change strategy (2015, including approval)  
National energy strategy (2015, including approval)  
National energy efficiency and conservation strategy (2015)  
National energy efficiency and conservation strategy (2015)  
National energy efficiency and conservation strategy (2015)

**2030 targets and INDC**  
Reduce GHG emissions level: 1990-18.4 million tonnes  
Reduce GHG emissions level: 2025-18.4 million tonnes  
Reduce GHG emissions level: 2030-18.4 million tonnes  
Conditional target 2030: not to exceed 60-75 per cent of 1990 level, 1.2-1.5 tCO<sub>2</sub>e per capita

**Adaptation priorities**  
Agriculture, irrigation and water systems  
Energy efficiency and conservation  
Health and safety  
Water resources and management  
Transport and infrastructure  
Ecosystems and biodiversity  
Coastal and marine resources  
Human settlements and infrastructure  
Occupational safety, industry and labour protection  
Disaster risk reduction

**GHG inventory of all sectors and gases**  
First national communication to UNFCCC under preparation (2016-2017)  
First national communication to UNFCCC under preparation (2016-2017)  
First national communication to UNFCCC under preparation (2016-2017)

**CLIMATE ACTIONS**  
**Low overall and per capita GHG emissions**  
Strong decrease in the energy use sector, growth in the amount of non-CO<sub>2</sub> emissions  
Low overall and per capita GHG emissions  
Strong decrease in the energy use sector, growth in the amount of non-CO<sub>2</sub> emissions

**Considerable action on adaptation**  
Major international agreements to agriculture, climate resilience, hydro and disaster risk reduction  
Major international agreements to agriculture, climate resilience, hydro and disaster risk reduction

**Regional actions**  
Climate resilience of the regional water infrastructure  
Environmental climate change and hydrology cooperation with Afghanistan

**CLIMATE FINANCE**  
**Limited national resources**  
Insufficient to high resources (high, medium) but achievable for tangible action  
Insufficient to high resources (high, medium) but achievable for tangible action

**Significant role of international climate investments**  
Focus on adaptation and risk management for climate resilient supply  
Focus on adaptation and risk management for climate resilient supply

**Pilot Program on Climate Resilience**  
UNFCCC pilot program on climate resilience  
UNFCCC pilot program on climate resilience

**EBRD and EIB funding**  
Climate resilience of the regional water infrastructure  
Climate resilience of the regional water infrastructure

**World Bank - Green Climate Fund**  
Climate resilience of the regional water infrastructure  
Climate resilience of the regional water infrastructure

**UNDP - GEF**  
Climate resilience of the regional water infrastructure  
Climate resilience of the regional water infrastructure

**Energy and emissions**  
Renewable energy installations and plans  
Fossil fuel energy installations and carbon emissions  
Renewable energy installations and plans  
Fossil fuel energy installations and carbon emissions

**Policies and institutions**  
Tajikistan has not yet developed comprehensive legislation on climate change and in general climate is not yet reflected in the national strategy for energy use. The national strategy for climate change action plan (2013) and the national strategy for health and safety (2015) are the only documents in the health and safety of Tajikistan. As one of the countries most vulnerable to climate change, Tajikistan is one of the countries most vulnerable to climate change. Tajikistan is one of the countries most vulnerable to climate change. Tajikistan is one of the countries most vulnerable to climate change.

### Impacts of climate change

Projected shifts in seasonal hydrology and spring snowmelt or water availability  
New risk areas for water and climate risks  
Environmentally sensitive and critical zones  
Severe drought impacts  
Reduction of ice cover

### Tajikistan scorecard

Country's share of global emissions  
Country's emissions per capita  
General climate action ambition

**National climate policy actors**  
**Policy leadership:** Executive Office of the President, Committee for Environmental Protection  
**UNFCCC focal point:** Agency on Hydrometeorology  
**GHG inventory:** Project based, Climate Change Centre  
**CCF focal point:** Committee for Environmental Protection

**Mitigation commitment:**  
Emissions reduction  
Decoupling from population growth  
Decoupling from economic growth  
Renewable energy  
Adaptation action

### Greenhouse gas emissions and projections for Tajikistan

Million tonnes

1990 1992 1994 1996 1998 2000 2002 2004 2006 2008 2010 2012 2014 2016 2018 2020 2030

Energy Industrial processes Agriculture Waste Land use change and forestry

Projections are based on Tajikistan's INDC

**Climate actions**  
Hydropower accounts for more than 95 per cent of the electricity generated in the country, which in combination with its low fossil fuel use makes Tajikistan a low-emission leader of Central Asia. Over the last decade, GHG emissions remained stable, but are expected to increase in the current decade. Recommendations and a scope for mitigation and adaptation activities are reflected in the national climate change action plan (2013).

**Climate finance**  
As a result of its high vulnerability to climate change and its low adaptive capacity, Tajikistan was invited to participate in the Pilot Program for Climate Resilience (PPCR). The budget of PPCR and other climate projects in Tajikistan grew to estimated US \$150 million in loans and grants, and funded activities in hydropower, agriculture, watershed management and other sectors. Tajikistan also receives adaptation support via the Climate Adaptation and Mitigation Program for Small States Bank (CAMAP) led by the Green Climate Fund and the World Bank.

**Sources of information for the scorecard**  
National climate-related assessments and reports: National climate change action plan (2013), Third national communication to UNFCCC (2014), NDC (2015), Policy and strategy documents: Tajikistan Agency on Hydrometeorology, Tajikistan Secretariat, World Bank, CFP, UNDP, UNFCCC  
All emissions are measured with uncertainties in Tajikistan.



## UZBEKISTAN CLIMATE FACTS AND POLICY

### POLICIES AND PROCESSES

**205 MILLION tCO<sub>2</sub>e**  
**6.9 TONNES PER CAPITA**

**Policy framework**  
Vision 2030, Resource-efficient growth, National sustainable development strategy (under consideration), Programme on industry modernization and energy efficient technologies, Programme on development of power and wind energy, Climate-friendly transport, Climate-friendly agriculture, Energy efficiency, Climate-friendly urbanization, Energy saving, Air quality, Sustainable development for the national power sector under UCM

**2020 targets**  
Increase natural gas power generation capacity (total 10-20 GW), Wind and solar power generation capacity (total 10-20 GW), Increase hydro-power capacity to increase capacity by 100 MW

**2030 targets**  
Implement national targets under revised and discussion, Modernization of the energy and industry sectors leading to a reduction of 20 million tonnes of CO<sub>2</sub>e, Modernization of the energy and industry sectors leading to a reduction of 20 million tonnes of CO<sub>2</sub>e, Modernization of the energy and industry sectors leading to a reduction of 20 million tonnes of CO<sub>2</sub>e, Modernization of the energy and industry sectors leading to a reduction of 20 million tonnes of CO<sub>2</sub>e

**Adaptation priorities**  
Water, agriculture, health and ecosystems

**GHG inventory and projections**  
First national communication to the UNFCCC, Second national communication to the UNFCCC, Second national communication to the UNFCCC, Second national communication to the UNFCCC

**CLIMATE ACTIONS**  
**Industrial and agricultural sector modernization**  
Lower GHG emissions and per hectare water use, energy use and GHG emissions, Increase energy efficiency of GDP by 10 per cent between 2009 and 2013, Increase energy efficiency of GDP by 10 per cent between 2009 and 2013, Increase energy efficiency of GDP by 10 per cent between 2009 and 2013, Increase energy efficiency of GDP by 10 per cent between 2009 and 2013

**Regional actions**  
World Bank, ADB, Adaptation Fund, Other international sources

**Energy and emissions**  
Fastest growing economies and carbon emissions, Renewable energy installations and plans

**Policies and institutions**  
Uzbekistan has extensive environmental legislation, which covers to international negotiations and decisions. The Ministry of Economy in the UCM has been particularly responsible for climate change. The State Committee for Nature Protection is responsible for the implementation of the State Committee for Nature Protection. The State Committee for Nature Protection is responsible for the implementation of the State Committee for Nature Protection. The State Committee for Nature Protection is responsible for the implementation of the State Committee for Nature Protection.

### Impacts of climate change

**Uzbekistan scorecard**

- Country's share of global emissions
- Country's emissions per capita
- General climate action ambition
- Mitigation commitment
- Emissions reduction
- Decoupling from population growth
- Decoupling from economic growth
- Renewable energy prospects
- Adaptation action

**National climate policy actors**

**Policy leadership:** shared responsibilities between the Uzbek Hydrometeorological Service, Ministry of Economy and the Uzbek State Committee for Nature Protection

**UNFCCC focal point:** Hydrometeorological Service

**GHG inventory and projections:** Hydrometeorological Service

**GEF and GCF focal points:** Hydrometeorological Service

### Greenhouse gas emissions and projections for Uzbekistan

**Climate actions**

Uzbekistan is the only country in Central Asia where emissions have remained relatively stable since 1990. A slight increase around 2012 is attributable to a more stable economic situation after the dissolution of the Soviet Union, diversified industries, the growing use of natural gas as a fuel in the power and transport sectors, agricultural and forestry sector dynamics and population growth. Among greenhouse gases, emissions of CO<sub>2</sub> remained stable and then declined slightly by 2012 compared to 1990 or 2000. Emissions of NO<sub>2</sub> also declined as a result of decreases in the use of mineral fertilizers and increases in the application of organic fertilizers. Methane emissions increased almost consistently due to growth in the agriculture sector (emissions from livestock, manure) and in the population (waste). 82 per cent of all GHG emissions originate in the energy sector.

In Samarkand province, with ADB support, Uzbekistan is building the largest solar power plant in Central Asia (100 MW). The first stages of similar capacity are planned for Qashqadaryo and Namangan provinces by 2020. Recently, in the industrial city of Navoi, a PV panel plant will be built to serve the growing energy needs of the country. A wind power facility will be constructed in Navoi and several priority sites proposed. Large leveling of agricultural and several priority sites proposed. Large leveling of agricultural and several priority sites proposed. Large leveling of agricultural and several priority sites proposed. Large leveling of agricultural and several priority sites proposed.

**Climate finance**

Uzbekistan is a first phase participant in the Climate Adaptation and Mitigation Program for Aral Sea Basin (CAMMABS) financed by the Green Climate Fund and the World Bank. ADB provides support to renewable energy (including Samarkand solar), energy efficiency and transportation networks. The Adaptation Fund provides support via UNDP to climate resilience of farming communities in the drought-prone parts of Uzbekistan.

**Sources of information for the scorecard**

Uzbekistan's energy and emission data are based on national communication to UNFCCC, GEF, GCF, and other international sources. The data are based on national communication to UNFCCC, GEF, GCF, and other international sources. The data are based on national communication to UNFCCC, GEF, GCF, and other international sources.

**ARMENIA CLIMATE FACTS AND POLICY**

**9.8 MILLION TONNES CO<sub>2</sub>E**  
**3.2 TONNES PER CAPITA**

**2030 targets and INDC**  
 Mitigation: 2030 emissions (2010-2050) 15.4 tonnes per capita per year  
 Net-zero emissions by 2050  
 Adaptation: 2030 emissions (2010-2050) 15.4 tonnes per capita per year  
 Net-zero emissions by 2050

**CLIMATE ACTIONS**  
 GHG emissions: 2030 emissions (2010-2050) 15.4 tonnes per capita per year  
 Net-zero emissions by 2050  
 2013 concept for ensuring energy security programme since 2010  
 Small hydropower plant development programme since 2010

**CLIMATE FINANCE**  
 National incentives for renewables and energy efficiency  
 EBRD: Renewable Energy and Energy Savings Fund  
 WB: Sustainable Energy and Environment Partnership  
 Netherlands Development Finance Company (FMO), International Finance Corporation (IFC), KfW Development Bank  
 OeEB Development Bank of Austria

**Energy and emissions**  
 Energy and emissions: 2030 emissions (2010-2050) 15.4 tonnes per capita per year  
 Net-zero emissions by 2050

**Policies and institutions**  
 The Ministry of Nature Protection is the executive authority for climate change. It leads the Inter-agency Coordinating Council on Implementation of Energy and Environment Policy established in 2012. The Ministry of Nature Protection is the executive authority for climate change. It leads the Inter-agency Coordinating Council on Implementation of Energy and Environment Policy established in 2012.

**Climate actions**  
 Similar to many other countries with economies in transition, Armenia is in the process of restructuring its economy. The country's energy sector is also undergoing a major restructuring. The country's energy sector is also undergoing a major restructuring.

**Impacts of climate change**

- Sea level rise
- Salinization
- Heat stress
- Forest fires
- Wild fire
- Biodiversity loss
- Changes in the population
- Food security, livestock systems
- Displacement, losses and exploitation
- Oil conditions

**Armenia scorecard**

- Country's share of global emissions
- Country's emissions per capita
- General climate action ambition
- Mitigation commitment: Emissions reduction
- Decoupling from population growth
- Decoupling from economic growth
- Renewable energy prospects
- Adaptation action

**National climate policy actors**

- Policy leadership:** Inter-agency Coordinating Council on Implementation of Requirements and Provisions of UNFCCC
- UNFCCC focal point:** Ministry of Nature Protection
- GHG inventory:** Project based, UNFCCC Climate Change Programme Unit

**Greenhouse gas emissions and projections for Armenia**

Million tonnes

1990 1995 2000 2002 2004 2006 2008 2010 2012 2014 2016 2018 2020 2025 2030

Energy Industrial processes Agriculture Land use, land-use change and forestry Fugitive emissions

Projections are based on Armenia's 2018 National Communication and INDC. \* First aggregate Armenia contribution under INDC equals 611 million CO<sub>2</sub>e for the period of 2012-2030.

**Impacts of climate change**

Although Armenia's energy intensity is still high due to its high rate of energy losses and obsolete energy infrastructure, the energy intensity of GDP has declined by 50 per cent since 2000. Armenia has a strong role in energy supply. Armenia is the only country in South Caucasus to produce nuclear energy (31 per cent of energy supply in 2014). The share of renewable energy in electricity production is on the increase and it provides approximately one third of the country's needs in electricity.

The National programme for energy savings and renewable energy and Action plan identify specific activities in residential buildings, services, manufacturing, transport, and water sectors. The Renewable energy strategy (2011) aims for a 18 per cent share of renewables in total energy generation in the long term.

Armenia is planning to apply an ecosystem approach for adapting to climate change. The country has identified natural ecosystems, health, water, agriculture, energy, tourism, settlements and infrastructure, and tourism as priority sectors for adaptation. These form the basis for Armenia's adaptation strategy and national adaptation plan, which are still to be developed.

**Climate finance**

Armenia has established a revolving investment fund for climate change mitigation and adaptation. Environmental fees from companies using natural resources and having an impact on the environment maintain the fund. The country also applies a policy to promote and attract investment in renewable energy. Preferential tariffs are set for power generated by small hydropower plants, wind turbines and biogas units as well as small-scale cogeneration units.

The Renewable Energy and Energy Savings Fund – financed by the World Bank and GEF – implements loan and grant programmes, it promotes market development and the use of clean, efficient and affordable heating technologies, and supports energy efficiency upgrades in public buildings. The Fund has successfully carried heating systems in schools and has provided loans to small hydropower plants.

**Sources of information for the scorecard**

National statistics and information sources: Renewable Resources and Energy Efficiency Fund, Eastern Europe Energy Efficiency and Environment Partnership, Climate Change Information Centre. Third national communication (2015). First biennial update report under the UNFCCC (2016); INDC (2015).

EU ClimateEast project  
 Analytical materials and expertise of Zoi Environment Network, as well as Armenian organizations and experts

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## AZERBAIJAN CLIMATE FACTS AND POLICY

### POLICIES AND PROCESSES

**51.8 MILLION CO<sub>2</sub>e**  
**5.4 TONNES PER CAPITA**

**2010 targets**

- 20% reduction in GHG emissions
- 5.7 T per capita share of renewable energy in electricity
- 10% reduction in total energy consumption
- 10% reduction in the gas production system

**2020 targets and NDC**

- 35% reduction by 2020 compared to the base year
- 20% per cent share of renewable energy, water, hydropower and LULUCF
- Control sector: energy, oil and gas, agriculture, waste, transport and tourism

**Adaptation priorities**

- Development of measures for agriculture, forest, water resources, coastal zones, human health and tourism

**GHG inventory of all sectors and gases**

- First National Inventory Report to UNFCCC
- First National Inventory Report to UNFCCC
- Application of sectoral GHG accounting and verification (SACV) in preparation stages
- System of GHG emissions monitoring, reporting and verification (MRV) in preparation stages

**Energy and emissions**

**Fossil fuel energy infrastructure and carbon emissions**

- Oil refineries: Baku, Sumgait, Neftchala, Tartar
- Thermal power plants: GAZP, Azerigas, Azerigas-2, Azerigas-3, Azerigas-4, Azerigas-5, Azerigas-6, Azerigas-7, Azerigas-8, Azerigas-9, Azerigas-10, Azerigas-11, Azerigas-12, Azerigas-13, Azerigas-14, Azerigas-15, Azerigas-16, Azerigas-17, Azerigas-18, Azerigas-19, Azerigas-20, Azerigas-21, Azerigas-22, Azerigas-23, Azerigas-24, Azerigas-25, Azerigas-26, Azerigas-27, Azerigas-28, Azerigas-29, Azerigas-30, Azerigas-31, Azerigas-32, Azerigas-33, Azerigas-34, Azerigas-35, Azerigas-36, Azerigas-37, Azerigas-38, Azerigas-39, Azerigas-40, Azerigas-41, Azerigas-42, Azerigas-43, Azerigas-44, Azerigas-45, Azerigas-46, Azerigas-47, Azerigas-48, Azerigas-49, Azerigas-50, Azerigas-51, Azerigas-52, Azerigas-53, Azerigas-54, Azerigas-55, Azerigas-56, Azerigas-57, Azerigas-58, Azerigas-59, Azerigas-60, Azerigas-61, Azerigas-62, Azerigas-63, Azerigas-64, Azerigas-65, Azerigas-66, Azerigas-67, Azerigas-68, Azerigas-69, Azerigas-70, Azerigas-71, Azerigas-72, Azerigas-73, Azerigas-74, Azerigas-75, Azerigas-76, Azerigas-77, Azerigas-78, Azerigas-79, Azerigas-80, Azerigas-81, Azerigas-82, Azerigas-83, Azerigas-84, Azerigas-85, Azerigas-86, Azerigas-87, Azerigas-88, Azerigas-89, Azerigas-90, Azerigas-91, Azerigas-92, Azerigas-93, Azerigas-94, Azerigas-95, Azerigas-96, Azerigas-97, Azerigas-98, Azerigas-99, Azerigas-100

**Renewable energy infrastructure and plans**

- Hydropower: GAZP, Azerigas, Azerigas-2, Azerigas-3, Azerigas-4, Azerigas-5, Azerigas-6, Azerigas-7, Azerigas-8, Azerigas-9, Azerigas-10, Azerigas-11, Azerigas-12, Azerigas-13, Azerigas-14, Azerigas-15, Azerigas-16, Azerigas-17, Azerigas-18, Azerigas-19, Azerigas-20, Azerigas-21, Azerigas-22, Azerigas-23, Azerigas-24, Azerigas-25, Azerigas-26, Azerigas-27, Azerigas-28, Azerigas-29, Azerigas-30, Azerigas-31, Azerigas-32, Azerigas-33, Azerigas-34, Azerigas-35, Azerigas-36, Azerigas-37, Azerigas-38, Azerigas-39, Azerigas-40, Azerigas-41, Azerigas-42, Azerigas-43, Azerigas-44, Azerigas-45, Azerigas-46, Azerigas-47, Azerigas-48, Azerigas-49, Azerigas-50, Azerigas-51, Azerigas-52, Azerigas-53, Azerigas-54, Azerigas-55, Azerigas-56, Azerigas-57, Azerigas-58, Azerigas-59, Azerigas-60, Azerigas-61, Azerigas-62, Azerigas-63, Azerigas-64, Azerigas-65, Azerigas-66, Azerigas-67, Azerigas-68, Azerigas-69, Azerigas-70, Azerigas-71, Azerigas-72, Azerigas-73, Azerigas-74, Azerigas-75, Azerigas-76, Azerigas-77, Azerigas-78, Azerigas-79, Azerigas-80, Azerigas-81, Azerigas-82, Azerigas-83, Azerigas-84, Azerigas-85, Azerigas-86, Azerigas-87, Azerigas-88, Azerigas-89, Azerigas-90, Azerigas-91, Azerigas-92, Azerigas-93, Azerigas-94, Azerigas-95, Azerigas-96, Azerigas-97, Azerigas-98, Azerigas-99, Azerigas-100

### CLIMATE ACTIONS

**Paris agreement on climate change**

Azerbaijan ratifies the Paris Agreement on climate change on January 2017

**GHG emissions**

20% reduction of total GHG emissions in 2020 compared to 1990

**Energy-related actions**

Implementation of the State program for Alternative and Renewable Energy sources

**Industrial sector development**

Modernization and gas production technologies

**Climate finance**

**National energy sector investments by 2020**

US \$20 million in investment in energy production, distribution networks and transmission lines

**ADB**

US \$100 million for modernization of the Baku-Tbilisi-Azov Energy Corridor Company as renewable energy efficiency project (RUEP)

**CEF**

Climate policy development, GHG inventory and reporting under UNFCCC, energy efficiency in residential buildings, wind energy plan (NABAP)

**International Climate Initiative (Germany)**

Phase 1 and 2 of CI 6 in cooperation (NABAP)

### Energy and emissions

**Risk**

- Site and source areas increased due to land cultivation of limited areas
- Risk of floods
- Fire risks
- Landslides
- Melting

**Identifiable and not identified**

- Hotspots
- Hotspots
- Hotspots
- Hotspots

### Azerbaijan scorecard

- Country's share of global emissions
- Country's emissions per capita
- General climate action ambition
- Mitigation commitment
- Emissions reductions
- Decoupling from population growth
- Decoupling from economic growth
- Renewable energy prospects
- Adaptation action

**National climate policy actors**

**Policy leadership and UNFCCC focal point:** Ministry of Ecology and Natural Resources

**Coordinating advisory body:** State Commission on Climate Change

**GHG Inventory:** Climate Change and Coarse Centre of the National Hydrometeorological Department

### Greenhouse gas emissions and projections for Armenia

**Energy** **Industrial processes** **Agriculture** **Waste** **Land use, land-use change and forestry** **Conditional** **Unconditional**

Although Armenia's energy intensity is still high due to its high rate of energy losses and obsolete energy infrastructure, the energy intensity of GDP has declined by 20 per cent since 2000, partly due to Armenia's improved energy sector policies, imports and natural gas has a strong role in energy supply. Armenia is the only country in South Caucasus to produce nuclear energy (21 per cent of energy supply in 2014). The share of renewable energy in electricity production is on the increase and it provides approximately one-third of the country's needs in electricity.

The National programme for energy savings and renewable energy and Action plan identify specific activities in residential buildings, services, manufacturing, transport, and water sectors. The Renewable energy roadmap (2011) aims for a 18 per cent share of renewables in total energy generation in the long term.

Armenia is planning to apply an ecosystem approach for adapting to climate change. The country has identified natural ecosystems, health, water, agriculture, energy, human settlements and infrastructure, and tourism as priority sectors for adaptation. These form the basis for Armenia's adaptation strategy and national adaptation plan, which are still to be developed.

**Climate finance**

Armenia has established a revolving investment fund for climate change mitigation and adaptation. Environmental fees from users benefit natural resources and having an impact on the environment maintain the fund. The country also applies a tariff policy to promote and attract investment to renewable energy. Preferential tariffs are set for power generated by small hydropower plants, wind turbines and biogas units as well as small-scale cogeneration units.

The Renewable Energy and Energy Savings Fund – financed by the World Bank and CEF – implements loan and grant programmes. It promotes market development and the use of clean, efficient and affordable heating technologies, and supports energy efficiency upgrades in public buildings. The fund has supported central-heating systems in schools and has provided loans to small hydropower plants.

An important milestone for Armenia was joining the Vienna Energy Efficiency and Environment Partnership (VEEP) agreement, which enables the country to access grant funds of €20 million. The funds are targeted for priority municipal energy efficiency and environmental projects, such as the rehabilitation of water and wastewater systems, solid waste management, street lighting and the insulation of public buildings. The first grant for energy efficient street lighting was signed in 2015.

International financial institutions – including EBRD, FMO, IFC, KfW, the World Bank and the Development Bank of Austria – have financed the establishment of lending organizations that provide credits for sustainable energy development to private businesses and entrepreneurs in Armenia.

Within the EU Climate4 project Armenia implemented a pilot on sustainable forest and pasture management for climate change mitigation and adaptation.

**Sources of information for the scorecard**

National strategies and information materials: Renewable Resources and Energy Efficiency Fund, Eastern Europe Energy Efficiency and Climate Investment Partnership, Climate Change Information Centre, Inter-Regional Communication (2015), First biennial update report under the UNFCCC (2016), NDC (2015).

EU Climate4 project

Analytical materials and expertise of Ziv Environment network, as well as Armenian organizations and experts.

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## BELARUS CLIMATE FACTS AND POLICY

### POLICIES AND PROCESSES

**89.3 MILLION tCO<sub>2</sub>e**  
**9.4 TONNES PER CAPITA**

**2020 targets**  
Reduce GHG emissions compared to 1990  
Reduce GHG emissions by 40% by 2020  
Reduce GHG emissions by 60% by 2025  
Reduce GHG emissions by 70% by 2030

**2030 targets and INDC**  
Reduce GHG emissions by 80% by 2030  
Reduce GHG emissions by 85% by 2035  
Reduce GHG emissions by 90% by 2040

**Adaptation strategy**  
Adaptation strategy for the most vulnerable sectors  
Adaptation strategy for the most vulnerable sectors  
Adaptation strategy for the most vulnerable sectors

**GHG inventory of all sectors and gases**  
National Inventory Report (NIR) 2017  
National Inventory Report (NIR) 2018  
National Inventory Report (NIR) 2019

**Energy and emissions**

Renewable energy contribution to total energy supply

Share of renewable energy in total energy supply

Share of renewable energy in total energy supply

### CLIMATE ACTIONS

**Paris agreement on climate change**  
Belarus ratified the Paris Agreement on climate change in September 2016

**GHG emissions**  
2017 total GHG emissions: 86 per cent below the 1990 level  
2018 total GHG emissions: 85 per cent below the 1990 level

**Energy-related actions**  
Energy efficiency in buildings and construction  
Energy efficiency in industry and other sectors  
Energy efficiency in transport and other sectors

**Adaptation actions**  
Adaptation strategy for the most vulnerable sectors  
Adaptation strategy for the most vulnerable sectors  
Adaptation strategy for the most vulnerable sectors

**Local initiatives**  
Initiatives on green economy development  
Initiatives on green economy development  
Initiatives on green economy development

### CLIMATE FINANCE

**National and international investments in a green economy**

**EBRD**  
Belarus Sustainable Energy Finance Facility (BSEFFF)  
US\$ 100 million for energy efficiency in 2019-2021

**EU**  
Energy efficiency, renewable energy, green economy, air pollution management

**GEF**  
Energy efficiency in residential buildings, energy development, green economy development

**UNEP**  
Climate change adaptation in the Neman River basin  
(GEF) energy efficiency in schools (EU)



#### Impacts of climate change



#### Belarus scorecard

- Share of global GHG emissions
- Emissions volume per capita
- Climate change targets
- Mitigation commitment
- Emissions reduction
- Decoupling from population growth
- Decoupling from economic growth
- Renewable energy prospects
- Adaptation action

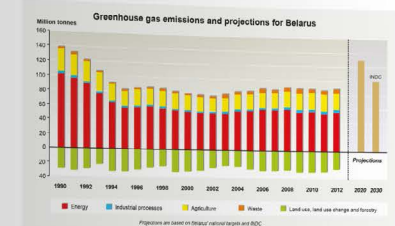
**National climate policy actors**

**Policy leadership:** Inter-agency Commission for transition to a green economy, Inter-agency Working Group on climate change under the Ministry of Natural Resources and Environment Protection

**UNFCCC focal point:** Ministry of Natural Resources and Environment Protection

**GHG inventory:** Research Centre "Ecology"

**Climate Technology network coordination:** Republican utility enterprise "Ecology Invest"



#### Climate actions

In September 2016 Belarus ratified the Paris agreement on climate change. In its INDC, Belarus aims for an unconditional reduction of GHG emissions by a minimum of 28 per cent of the 1990 level by 2020 (exclusive of LULUCF). By 2019 necessary legal prospects and a framework for implementing the commitment are to be developed.

The country managed to significantly reduce GHG emissions in the past, with relatively low marginal costs. In the period of 1990-2000 energy efficiency, energy saving and the promotion of renewables accounted for about 1.8 per cent of GDP, and in 2011, 2015, 3 per cent of GDP. The share of state budget funds in these investments was at least 30 per cent, while the rest was covered by external funding sources and aid. In one of the national energy efficiency development strategies for 2015-2020, the carbon intensity of the economy decreased by almost 70 per cent from 1990 to 2012. Still, significant steps remain to be taken to make Belarusian economy more energy efficient.

Forests and peatlands play a major role in the absorption of GHG emissions in Belarus. Forest cover has increased by 4 per cent since 1990. Forest cover 0.68% of per cent in 2013 and reported to reach 1% per cent by 2020. At the same time, forestry has been identified as one of the most climate-resilient sectors, and a adaptation strategy for the agricultural sector is under development. The country is planning to draft a national framework for implementation of specific national adaptation measures.

#### Climate finance

Belarus finances climate change activities both through government programmes and through external donor funding. Reinvestment of the energy sector, including development of renewable energy, is identified as a national priority, and international agreements such as GEF, World Bank and UNDP support projects on energy efficiency both through grants and loans.

EBRD maintains a Belarus Sustainable Energy Finance Facility (BSEFFF) credit line, of which US\$ 50 million is aimed at renewable energy and energy efficiency in the private sector, and US\$ 50 million at reforms in housing and communal services. GEF supports a portfolio of energy-efficient housing development and wind energy, and the World Bank has been providing loans for improved energy efficiency for several years.

The European Union funds several energy efficiency, renewable energy, climate adaptation, waste management, green economy and environmental projects. The amount of EU funding in 2012-2020 is expected to reach €30 million. UNFCCC, through the Environment and Security Initiative, supported the preparation of a climate adaptation strategy for the transboundary Neman River basin.

**Sources of information for the scorecard**

Publications, strategies and legislation. The National Strategy for sustainable economic development for the period until 2030, the Law on alternative energy resources, the Energy Efficiency Concept, the State programme on energy savings, the State programme on environmental protection and sustainable use of natural resources for 2014-2020; State communication to UNFCCC, INDC.

Publications and materials of World Bank, EBRD, GEF, UNEP, UNDP and UNFCCC project.

Analysed materials and information provided by the Environment Network, and organizations and experts of the Republic of Belarus.

The publication has been prepared with the assistance of the Ministry of Natural Resources and Environment Protection of the Republic of Belarus. The editorial responsibility of the content and any errors therein lies with the Republic of Belarus.

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## GEORGIA CLIMATE FACTS AND POLICY

### POLICIES AND PROCESSES

**Policy framework**  
Commitment for regional development for 2010-2020  
Climate Change Strategy 2007-2020  
EU Georgia Association agreement  
EU Georgia Association agreement  
2009 targets and INDC  
Intentional reduction of GHG emissions by 10 per cent below the business as usual (BAU) scenario by 2020  
Contribution to reduction of GHG emissions by 25 per cent below BAU for 2030 with international financial support

**Adaptation policies**  
Agriculture, forests, coastal zones, early warning system for climate-related extreme events

**GHG inventory of all sectors and gases**  
Third national greenhouse gas inventory for 2013  
First national greenhouse gas inventory for 2008  
National inventory report for UNFCCC

### CLIMATE ACTIONS

**GHG emissions and energy efficiency**  
Low emission development strategy for 2014-2020  
National energy efficiency action plan 2014-2020

**Adaptation Initiatives**  
Adaptation of crops and climate drought and forest response plans, irrigation management, coastal zone protection, agriculture, forests

**NAMAs**  
Co-financing energy efficient schools, low carbon buildings, urban transport sector

**Local initiatives**  
Sustainable energy action plan established in 10 cities  
Adaptation of crops and climate drought and forest response plans, irrigation management, coastal zone protection, agriculture, forests

### CLIMATE FINANCE

**EU**  
Rehabilitation of the Engur hydropower plant  
Sustainable pasture management (Sustainable pastures, climate resilience of forest ecosystems)

**EBRD**  
Over US\$100 million for Dnestri hydropower plant (with carbon offsetting through rehabilitation and fuel efficiency)

**Eastern Europe Energy Efficiency and Environment Partnership (E3P)**  
Energy efficiency projects

**GEF**  
Sustainable transport in Batumi and Ajara cities, renewable energy, climate resilience of agriculture, forest and parks

**USAID**  
Low carbon development strategy  
Implementation of climate change adaptation and mitigation at local and national levels  
Forest management technologies

**UNDP - Adaptation Fund**  
Climate security and food management

### Energy and emissions

**Renewable energy installations and plans**

**Climate actions**  
The dissolution of the Soviet Union and the collapse of the centrally planned economy in the early 1990s caused a significant reduction in national GHG emissions with the lowest level recorded in 1992. Georgia's GHG emissions peaked in 2008 at 10.5 million tonnes CO<sub>2</sub>e, 53 per cent of the 1990 emissions level of 19.8 million tonnes CO<sub>2</sub>e.

Georgia largely depends on imported energy resources and 60 per cent of total energy consumption comes from fuels for electricity generation. Georgia relies heavily on hydropower for electricity production and plans to expand the country's non-renewable energy production and power generation capacity, and small hydropower plants (over 100 MW), modern, and small hydropower plants, which are already in development and construction phase. Georgia is also actively developing and modernizing energy infrastructure at solar, wind, geothermal and biomass energy sectors. EU targets on energy security, climate change and mitigation are addressed in the NDC. Georgia plans to introduce renewable energy resources for 15 per cent below BAU emissions in 2030. The NDC also includes a reduction in emissions intensity per unit of GDP of approximately 10 per cent from 2013 to 2030. The NDC also includes a reduction of emissions intensity per unit of GDP of approximately 43 per cent from 2013 to 2030.

### Policies and institutions

The Ministry of Environment and Natural Resources Protection (MENRP) is the main coordination body for climate change. Within the MENRP, the Climate Change Service (CCS) is the main implementation body for the National Environmental Agency (NEA) and the Ministry of Environmental Protection and Forestry (MEPF). The CCS is responsible for the development and implementation of the National Energy Efficiency Action Plan (NEEAP) for 2014-2020 and the National Inventory Report for 2013-2014 to UNFCCC.

The Ministry for regional development and sustainable development and climate change adaptation and low carbon development strategy (MRC) is a key institution in the implementation of Georgia's climate change adaptation and low carbon development strategy. The MRC is responsible for the development and implementation of the National Energy Efficiency Action Plan (NEEAP) for 2014-2020 and the National Inventory Report for 2013-2014 to UNFCCC.

The MENRP has developed a roadmap for EU approximation in climate change adaptation and low carbon development strategy. The roadmap is a key instrument in the implementation of Georgia's climate change adaptation and low carbon development strategy. The roadmap is a key instrument in the implementation of Georgia's climate change adaptation and low carbon development strategy.

### Impacts of climate change

Sea level rise and coastal erosion, increased risk of flooding, reduced agricultural productivity, increased risk of forest fires, increased risk of drought, increased risk of water scarcity, increased risk of soil erosion, increased risk of landslides, increased risk of avalanches, increased risk of forest fires, increased risk of drought, increased risk of water scarcity, increased risk of soil erosion, increased risk of landslides, increased risk of avalanches.

### Georgia scorecard

**Country's share of global emissions**  
Country's emissions per capita  
Country's climate action ambition

**National climate policy actors**  
Policy leadership: Ministry of Environment and Natural Resources Protection (MENRP)  
UNFCCC focal point: Climate Change Service of the MENRP  
GHG inventory: Climate Change Service of the MENRP  
Climate technology network coordination: Government Coordination Committee on Low emissions development strategy

**Mitigation commitment:**  
Emissions reduction  
Decoupling from population growth  
Decoupling from economic growth  
Renewable energy prospects

**Adaptation action**

### Greenhouse gas emissions and projections for Georgia

2013 to 2030. The 20 per cent reduction below the BAU scenario would also require that Georgian GHG emissions by 2030 remain 40 per cent below the 1990 levels.

Georgia is currently drafting a National energy efficiency action plan, which can have significant mitigation potential. In addition, the voluntary reduction of GHG emissions by Georgian cities that have joined the Government of Mayors will contribute further to pre and post-2020 mitigation in the country.

Georgia is seeking to prioritize adaptation measures and is identifying associated financial needs (economic and external). Sea level rise impacts are projected to result in multiple negative consequences in the coastal zone of the country. The second Technology needs assessment recommends a combination of technology needs assessment and a combination of technology needs assessment to prevent significant damage by rising levels of the Black Sea. In the absence of adaptation measures, losses in the tourism sector alone are estimated at US\$ 2 billion by 2030. For the agricultural sector, planned adaptation measures include development of emergency response plans for drought and flood, improved irrigation management and implementation of site-specific anti-erosion measures, and the establishment of information centres that provide guidance on adaptive agriculture.

### Climate finance

Accessing adaptation funding is crucial for Georgia. Economic losses in the absence of adaptation measures for 2021-2030 are estimated at US\$ 10-12 billion, while adaptation measures for the preparation of Georgia's NDC. The EU, EBRD and GEF by the preparation of Georgia's NDC. The EU, EBRD and GEF provide significant funding for hydropower development, renewable energy and energy efficiency. Georgia is also a participant in the Eastern Europe Energy Efficiency and Environment Partnership. Several donors such as the Adaptation Fund, EU and USAID fund climate resilience and adaptation measures.

**Sources of information for the scorecard**  
National climate-related reports: NDC, Third national communication, GHG National Inventory Report, Roadmap for EU approximation in environment and climate action, EU Climate Change project  
Analytical materials and reports of Joint Environment Network, as well as Georgian organizations and experts  
This publication has been prepared with the support of the European Union. The views of the authors do not necessarily reflect those of the European Union. The design and layout are the responsibility of the authors.

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## UKRAINE CLIMATE FACTS AND POLICY

### POLICIES AND PROCESSES

**Ukraine - 2020 Sustainable development strategy**  
 Building competitiveness and innovation, increasing energy resources with a goal of building GDP growth rate of 60 per cent by the year 2020.  
 Associated with a green transition, increasing energy efficiency and climate policy development, including a green transition (GTC) initiative, energy saving scheme.

**Association Agreement between Ukraine and the European Union**  
 Energy efficiency and climate action. Renewable energy 11 per cent by the year 2020. Energy efficiency 100 per cent by 2020. Energy saving of 8 per cent of average final energy consumption.

**Energy plans and goals**  
 Plans for reduction of methane and other emissions (including methane gas venting) and energy efficiency. The 2020 target is to reduce greenhouse gas emissions by 100 per cent compared to 1990 level.

**Taxes and tariffs**  
 From 1 April 2016, the 2016-2017 energy tax rate is 100 per cent compared to the 1990 level.

**2020 Climate Policy Goals**  
 2020 GHG emissions: 100 per cent compared to 1990 level. GHG emissions: 100 per cent compared to 1990 level.

**2030 Goals and Intended Nationally Determined Contribution (INDC)**  
 2030 GHG emissions: 100 per cent compared to 1990 level. GHG emissions: 100 per cent compared to 1990 level.

**GHG emissions inventory and reporting**  
 National inventory of GHG emissions. National inventory of GHG emissions. National inventory of GHG emissions.

### CLIMATE ACTIONS

**Paris Agreement on Climate Change**  
 Ukraine is a party to the Paris Agreement on Climate Change in September 2016.

**Paris Agreement on Climate Change**  
 Ukraine is a party to the Paris Agreement on Climate Change in September 2016.

**Energy Efficiency**  
 Energy efficiency is a key priority for Ukraine. Energy efficiency is a key priority for Ukraine.

**Development of legal and scientific grounds for climate adaptation**  
 Development of legal and scientific grounds for climate adaptation. Development of legal and scientific grounds for climate adaptation.

**Local authority initiatives**  
 Local authority initiatives. Local authority initiatives.

**CLIMATE FINANCE**  
 State budget. External sources. International programmes and organizations that provide climate grants and lending.

**Energy and emissions**  
 Fossil fuel energy production and carbon emissions. Renewable energy production and carbon emissions.

**Policies and institutions**  
 The most active responsible for the research and implementation of energy and climate policy is the Ministry of Energy and Coal Industry. The Ministry of Energy and Coal Industry is responsible for the research and implementation of energy and climate policy.

## Impacts of climate change

**Ukraine scorecard**

- Country's share of global emissions
- Country's emissions per capita
- General climate action ambition
- Mitigation commitment
- Emissions reductions
- Decoupling from population growth
- Decoupling from economic growth
- Renewable energy prospects
- Adaptation action

**National climate policy actors**

**Policy leadership** – Ministry of Ecology and Natural Resources

**Coordinating advisory body** – Interdepartmental Commission for compliance with the UNFCCC

**Key authorities** – Ministry of Energy and Coal Industry; Ministry of Economic Development and Trade; Ministry of Regional Development, Construction and Housing; Ministry of Environmental Protection, Energy Efficiency and Energy Saving; State Agency for Energy Efficiency and Energy Saving

**GHG Inventory** – State-owned National Center for GHG inventory

**Scientific coordination** – National Academy of Sciences Coordination Council for UNFCCC Issues

## Greenhouse gas emissions and projections for Ukraine

**Climate actions**

**Sponsored projects include:**

- Establishment of institutional and technical capacities for an emissions trading scheme
- Support for MRV
- Development and implementation of climate change mitigation and adaptation policies and plans
- Assessment of climate change and security in Eastern Europe, Central Asia and the South Caucasus
- Municipal energy audits (assistance in identifying and implementing low-carbon development strategies)

**Climate finance**

Public funding covers the preparation of international climate reports, the development of related legislation, draft regulations of the Cabinet of Ministers, ministries and institutions, and coordination of the development and implementation of sectoral policies, plans and programmes, and implementation of sectoral policies, plans and programmes. The budget also funds the National Center for GHG inventory and the national electronic registry of carbon units.

**Sources of information for the scorecard**

Least articles of Ukraine and regulations of the Cabinet of Ministers, decrees and resolutions, acts of sectoral strategies, plans and programmes.

Electronic inventory of resources and institutions of Ukraine, the UNFCCC, the World Bank, UNEP, IAEA, UNFCCC, adaptation programmes and projects, international projects and programmes, NDCs and adaptation documents.

The National Center of atmospheric, hydrological and climate observations in Ukraine, the 8th National Communication of Ukraine on Climate Change, the 1st National Communication of Ukraine on Climate Change, the 1st National Communication of Ukraine on Climate Change, the 1st National Communication of Ukraine on Climate Change.

Cartographic materials from international sources, the State Service for Geodesy and Cartography of Ukraine, the Ukraine Hydrogeological Institute of the National Academy of Sciences, the Ukrainian Research Institute of Geodesy and Cartography.

Analysis, synthesis and expertise of the Environmental Protection Agency and other Ukrainian organizations and experts.

The project has been prepared with the assistance of the European Union. The content is the sole responsibility of the authors and does not necessarily reflect the views of the European Union.

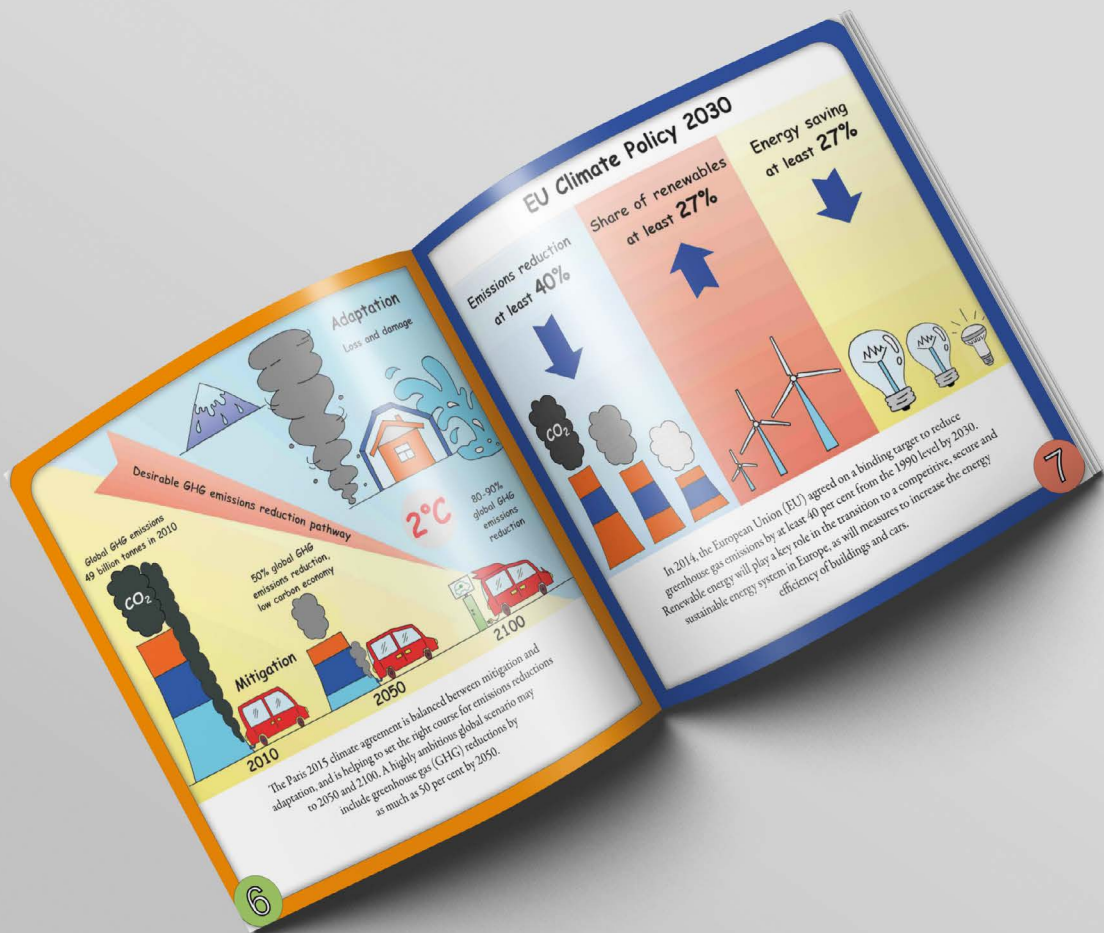
The designations employed and the presentation of the material do not imply the endorsement of any official institution concerning the development of an emissions trading system, climate change adaptation strategies and related plans and programmes.



### 3. Addressing climate change – European Union and Central Asia.

A cartoon summary. ([English](#), [Russian](#))







### Expected progress of the EU 20-20-20 climate by 2020

20% 24% 21%

EU Climate Policy 2020

Emissions reduction

Share of renewables

Energy saving

The EU is on track to meet its targets for emission reductions and the share of energy produced from renewable resources while maintaining growth in its gross domestic product. The 20-20-20 targets represent an integrated approach to climate and energy policy designed to combat climate change, increase energy security, strengthen competitiveness and create jobs.

### EU Emissions Trading System

EU Emissions Trading System

The EU Emissions Trading System works on the "cap and trade" principle: companies can receive or buy emissions allowances that they can trade with one another as needed. They can also buy limited international credits from emissions saving projects around the world. The system covers 11 000 emitters in 31 countries with up to 45 per cent of total emissions.

### EU Effort Sharing Decision on Emissions Reduction

-10%

The EU Effort Sharing Decision establishes binding national GHG emissions targets for 2020 that will collectively reduce emissions in the transport, building, agriculture and waste sectors by 10 percent from their 2005 levels. Wealthier countries will reduce emissions, while others are still allowed to maintain or temporarily increase emissions in these sectors because their relatively higher economic growth is likely to entail higher emissions.

### Carbon capture and storage (CCS)

Carbon capture and storage (CCS)

The EU climate strategy for 2050 includes a proposal to meet emissions targets by using carbon capture and storage together with significant reductions related to stricter emission standards for new cars.

### Estimated savings from investments in energy modernization, 2021-2025

600 billion

300 billion

EU

Europe studied the socioeconomic and environmental feasibility of its climate ambitions and determined that climate investments are essential for reducing health impacts and air pollution. Investments in energy efficiency, renewable energy systems and fuel savings will produce savings of €300 billion (compared with no action) in the medium term.

### EU adaptation priorities

- Urban areas and health
- Coastal areas and Fisheries
- Agriculture and forestry
- Disaster risk reduction
- Biodiversity and water management
- Infrastructure

The EU strategy on adaptation to climate change covers a broad range of priority sectors and themes, and aims to reduce the vulnerability of sectors, systems, people and assets. Cross-border climate change impacts call for EU-wide and transnational approaches, but the strategy also pays significant attention to local action plans and urban areas.

Climate change damage in some areas and sectors is likely to lead to extreme weather events and migration, but it may also offer opportunities for transformative development pathways, and the prospect for grave consequences may become a motivation for climate-resilient economic growth.

2000	10 billion
2010	50 billion
2020	100 billion

Climate change financing is expected to reach US \$100 billion per year by 2020. Governments and the private sector make investments, loans and grants and facilitate technology transfers, while international development banks and the financial mechanisms of the UNFCCC — the Green Climate Fund, the Global Environmental Fund and the Adaptation Fund — encourage global actions.





**KAZAKHSTAN**



Kazakhstan's mountain areas in the south-east and grain-producing areas in the north are particularly vulnerable to climate change, and water level fluctuations in the Caspian Sea may expose coastal infrastructure. Growing traffic in large cities adds to congestion and contributes to poor air quality. Climate initiatives include investments in renewable energy and a national carbon emissions trading system. Kazakhstan has also organized Astana EXPO 2017 with a focus on energy for the future.

**KYRGYZSTAN**



Climate change in Kyrgyzstan is aggravating the environmental problems associated with mining and the overuse of pastures, and is threatening the country's biodiversity and water sources. Mountain ecosystems and Issyk-Kul Lake are vulnerable, as are hydropower production, mining at high elevations and cultivated agriculture. In some places, warming temperatures and changing conditions threaten the safety of hazardous waste sites.



**TAJIKISTAN**



With abundant hydropower and a largely rural population, Tajikistan has the lowest GHG emissions in the region, but faces the most serious impacts and consequences of climate change. Flooding, heatwaves, crop failures and loss of biodiversity are key concerns. While Tajikistan has not yet developed comprehensive climate legislation, it is a regional pioneer in adaptation planning, including local projects and climate-proofing of infrastructure.

**TURKMENISTAN**



Most of Turkmenistan's energy and industry rely on the country's plentiful gas reserves, and with the lowest population density in the region, Turkmenistan's per capita emissions are high. But the country is investing in modern technologies, afforestation, energy efficiency in residential construction and responses to climate risks in agriculture. The protection of water, health and agriculture are adaptation priorities.



#### 4. Inputs to meetings and workshop

Adaptation and mitigation priorities of Central Asia and cooperation with the EU in support of future climate action in the region. Leaflet for the side event at Paris COP 21

