UN EUROPE & CENTRAL ASIA

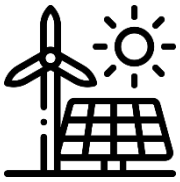
Issue-Based Coalition on Environment and Climate Change

Climate messages 2023

Climate policies and strategies

- Half of the countries in the region have undertaken preparatory work to support the development of financing strategies or investment plans or are in the process of doing so, in line with their national determined contributions (NDCs). In the programme countries[1], mainstreaming NDC into national climate change plans and strategies surpasses the global average, while the integration of NDC into national development plans and strategies is the opposite. The programme countries exhibit higher-than-global-average mainstreaming of NDC in sectoral plans, budgets, and subnational plans. The sectoral mainstreaming of NDC has improved from 18% to 44% since 2021.
- The programme countries lead in mobilizing domestic public and private finance compared to other regions. 87% of Eastern Europe, the Western Balkans, and Central Asia countries have enhanced adaptation measures in their revised NDCs. Agriculture, forestry, and water are the region's top three adaptation sectors across NDCs. For Mitigation, Adaptation, and Finance measure, report and verify (MRV) systems tracking NDC progress, the programme countries average lower than the global average. However, the RBEC average for the National GHG emission inventory is higher than the global average[2].
- Only 25% of the programme countries have prepared long-term low-emissions strategies (LT-LEDS) and submitted them to the UNFCCC (Bosnia and Herzegovina, Georgia, North Macedonia, Ukraine). Seven countries are developing their long-term strategies, including two countries with the LT-LEDS approved by the government but not yet submitted to the UNFCCC. Half of the countries also committed to achieving net zero or carbon neutrality in the long term perspective.

[1] Programme countries and territories cover Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Georgia, Kazakhstan, Kosovo* (all references to Kosovo shall be understood in full compliance with United Nations Security Council Resolution 1244), Kyrgyzstan, Montenegro, North Macedonia, Republic of Moldova, Serbia, Tajikistan, Türkiye, Turkmenistan, Ukraine, Uzbekistan.
[2] NDC Outlook Survey, UNDP (2023), unpublished data.



Energy

The energy sector is by far the most important emitter of GHGs in Europe, although the overall number of GHGs emitted decreased by about 27% between 1990 and 2017.[3] In Europe and Central Asia[4], renewable energy consumption has risen from 6% of total final energy consumption in 1990 to 15% in 2020.[5] Between 1990 and 2015, renewable electricity output in Europe and Central Asia increased from 16% of total electricity output in 1990 to 28% in 2015.[6] Among the Eastern Europe and Caucasus countries, fossil-fuel subsidies to producers and consumers remained stable at USD3 billion between 2010 and 2020.[7]

Between 2012 and 2019, about USD 1.6 billion in foreign aid was committed to support renewable energy development in Central Asia, mostly to Kazakhstan and Tajikistan.[8] However, the share of renewables in final energy consumption remains low for Kazakhstan[9] (1.7% in 2019) and is decreasing for Tajikistan[10] (from 61% in 2010 to 38% in 2019).

While benefiting from almost universal household electrification (99.4%), countries are characterized by high levels of energy intensity and inefficiency, especially in the building sector. Up to 96% of total primary energy supply comes from fossil fuels (coal, oil, and natural gas) – 16% higher than the global average – and reforms are needed to end decades of subsidized tariffs and distorted prices. Despite their high potential, renewable energy sources (other than hydropower) account for only 1.38 percent of the energy supply due to high initial investment costsand lack of competitiveness.

a) Develop and adopt a long-term climate-neutral national energy strategy in accordance with national priorities and carry its Strategic Environmental Assessment (SEA).
b) Reform fossil fuel subsidies provided to industry and households.
c) Establish an emissions trading scheme to incentivize emission reduction and reinvest possible revenues from such system in further climate mitigation or adaptation instead of them being absorbed into the State budget.
d) Introduce economic incentives for electricity produced from sustainable energy sources and to encourage the purchase of low carbon or carbon neutral technologies in the tariff, taxation and customs systems.
e) Elaborate and implement a grid modernization plan to increase energy efficiency, reduce losses in electricity transmission, align the grid with the targets and needs and accommodate increased generation of wind and solar energy.
f) Invest in research, innovation, skill development for young people in energy-related fields, in particular startup opportunities for energy generation, storage, efficiency.

[3] https://www.eea.europa.eu/data-and-maps/daviz/ghg-emissions-by-aggregated-sector-5#tab-dashboard-02
[4] The United Nations Member States in the UNECE region, except for Canada, Israel, Malta and the United States of America.
[5] Renewable energy consumption (% of total final energy consumption) - Europe & Central Asia | Data (worldbank.org)
[6] Renewable electricity output (% of total electricity output) - Europe & Central Asia | Data (worldbank.org)
[7] https://www.oecd.org/environment/outreach/Policy-Highlights-Green-Economy-Transition-in-Eastern-Europe-the-Caucasus-and-Central-Asia.pdf , p. 7.
[8] REN21_UNECE2022_FullReport.pdf, pp. 113-114.
[9] Kazakhstan - Countries & Regions - IEA
[10] Tajikistan - Countries & Regions - IEA

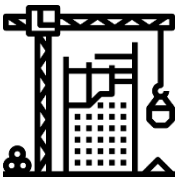
Spatial planning and regional development

Across Europe and Central Asia, only 29% of countries report existence of Multi-Hazard Early Warning Systems (MHEWS).[11] In Europe, Meteoalarm provides alerts to prepare for the impacts of extreme weather events such as heavy rain, heat waves, forest fires, snow or extreme cold. Additionally, the European Flood Awareness Systems (EFAS) sends out notifications to the national and regional authorities to prepare for a possible flood emergencies. More than 200 flood notifications and 500 flash-flood notifications were sent out per year by the EFAS.[12]

Nature-based solutions (NbS) have been identified in their potential to contribute to nationally determined contributions (NDCs) within both climate mitigation and adaptation commitments. Examples of NbS in agriculture contributing to NDC commitments exist in the region, including sustainable forest management in Türkiye and Kazakhstan, and pasture improvements through the restoration of degraded and overgrazed land in Tajikistan.[13]

a) Support local level emission reduction and adaptation measures, including disaster risk reduction (DRR) planning and the use of nature-based solutions, e.g., by integrating these into local development plans and programmes.
b) Implement water-sensitive land measures regarding drought and flood risk (e.g., managed aquifer recharging, afforestation, restoration of river beds and flows, and other nature-based solutions), and early warning systems and contingency plans.
c) Introduce incentives for sustainable agriculture diversification, water management, and ecosystem-based climate adaptation in rural settlements, paying special attention to economic diversification and implications for jobs.
d) Consider biodiversity and health in urban planning and development policies in order to preserve natural habitats and create additional green spaces;
e) Create safe and accessible infrastructure for active transportation, such as cycling lanes and walkways;
f) Increase the availability and accessibility of green spaces to provide youth with opportunities for physical activity, stress reduction, and connection with nature, improving mental and physical wellbeing, and engage youth as co-creators in planning, designing and development of urban and rural space.

[11] https://www.undrr.org/media/84088/download?startDownload=true, p. 19.
[12] (ibid.), p. 39.
[13] https://www.fao.org/3/cb4934en/cb4934en.pdf, pp. 33-35.



Housing and construction, retrofitting and renovation

Buildings in the EU are responsible for 40% of energy consumption and 36% of GHG emissions, mainly due to construction, usage, renovation and demolition.[14] A large share of the bloc's residential buildings were built before the first thermal standards were introduced in the 1970s, thus undercutting energy efficiency and GHG emission reduction targets, most notably in Belgium (59% of residential buildings built before 1970), Denmark (59%) and Slovenia (52%).[15] However, between 2005 and 2020, all EU27 except for Malta managed to reduce their GHG emissions from energy use in buildings, most notably Sweden (-68%), Slovenia (-55%), Denmark (-50%) and Greece (-50%). The lowest progress was shown in Luxembourg, Romania and Lithuania (-2% to -4%).[16]

Public buildings are one of the largest energy-consuming sectors in the Western Balkans, responsible for nearly **30-60%** of the region's final national energy consumption. With an estimated energy-saving potential ranging to about **50%**, various interventions could lead to these significant savings in energy consumption.

In 2019 the buildings and construction sector accounted for 36% of final energy use. CO2 emissions from the operation of buildings have increased to their highest level yet at around 10 GtCO2, or 28% of total global energy-related CO2 emissions. With the inclusion of emissions from the buildings construction industry, this share increases to 38% of total global energy-related CO2 emissions.[17]

a) Fully exploit the potential for GHG emissions reduction from the housing sector, including through renovation, energy efficient building design, energy efficient lighting, heating and cooling systems.
b) Introduce carbon taxation for sectors such as housing and commercial, to incentivize the switch to more sustainable technologies, taking into account the needs of poor and vulnerable groups.
c) Create incentives to stimulate more carbon neutral energy sources, considering the concerns of poor and vulnerable parts of the population.
d) Introduce measures to stimulate changes towards low carbon or carbon neutral fuels and the use of better heating appliances in the housing sector.
e) Create incentives to promote insulation measures for residential and public buildings (e.g., funding programmes).
f) Invest in skills and jobs, including start-ups, for retrofitting and renovation projects for young people and in young researchers, engineers, and architectures to design and develop more sustainable, energy-efficient, and affordable housing.
g) Raise awareness on the benefits of using sustainable materials, energy-efficient designs, and eco-friendly building techniques.

[14] https://commission.europa.eu/news/focus-energy-efficiency-buildings-2020-02-17_en#:~:text=Collectively%2C%20buildings%20in%20the%20EU,%2C%20usage%2C%20renovation%20and%20demolition.
[15] https://www.euronews.com/green/2022/12/09/europes-energy-crisis-in-data-which-countries-have-the-best-and-worst-insulated-homes
[16] https://www.eea.europa.eu/ims/greenhouse-gas-emissions-from-energy
[17] UNEP, 2020 Global Status Report for Buildings and Construction: Towards a Zero-Emission, Efficient and Resilient Buildings and Construction Sector (Nairobi, 2020). Available at https://globalabc.org/sites/default/files/inline-files/2020%20Buildings%20GSR_FULL%20REPORT.pdf

Transport

The transport sector is the second biggest emitter of GHGs in Europe and its total emissions have risen by more than 15% between 1990 and 2015.[18] With road transport causing most of the transport emissions, among the EU27, the motorization rate is increasing for every single member state between 2001 and 2021.[19] Luxembourg, Poland, Italy, Cyprus, Finland, Estonia and Malta had more than 600 passenger cars per 1,000 inhabitants in 2021.[20] These numbers are significantly lower in Central Asia, where Kazakhstan, in 2016, leads with 242 registered cars per 1,000 inhabitants.[21] Compared to that, the number of passenger-kilometres travelled by train decreased in the Europe and Central Asia region by 3% between 1995 and 2019.[22]

However, there are large increases in the number of total passenger-kilometres travelled in some Central Asian countries like Uzbekistan (+73%) and Kazakhstan (+45%). Other countries in the region show a strong decline, most notably Tajikistan (-73%) and Kyrgyzstan (-60%).[23]

a) Encourage local authorities and other stakeholders to invest in better and less polluting public transport with lower greenhouse gas (GHG) emissions, more public transport lanes and safe walking and biking zones, especially in urban areas.
b) Adopt emission standards for vehicles and technical specifications; set up inspection and maintenance programmes to enforce emission control standards.
c) Prepare for infrastructure that accommodates the use of electric public transportation, electric cars and bicycles.
d) Invest public funds in greening the economy and use public investments to develop infrastructure with the lowest possible adverse environmental impact, to rehabilitate and conserve natural resources and to prioritize resilience in order to reduce the risk of displacement of people and enterprises.
e) Implement incentives for the use of public transportation, such as discounted fares for students and young people, to encourage a shift away from private car usage.

[18] https://www.eea.europa.eu/data-and-maps/daviz/ghg-emissions-by-aggregated-sector-5/#tab-chart_3
[19] https://ec.europa.eu/eurostat/web/products-eurostat-news/w/ddn-20230530-1
[20] https://w3.unece.org/PXWeb/en/CountryRanking?IndicatorCode=44
[21] https://ourworldindata.org/grapher/registered-vehicles-per-1000-people?region=Asia
[22] https://ourworldindata.org/transport
[23] (ibid.)

Agriculture, aquaculture and forestry

This primary sector is an important part of the region's economies, most notably in Tajikistan (27% of GDP), Uzbekistan (25%) and Albania (21%).[24] Although declining by roughly 20% between 1995 and 2015, agriculture is still one main source of emitted GHGs in Europe.[25] The EU27's trends on agricultural emissions differ largely: countries like Malta, Croatia, Greece and Romania were able to reduce their emissions by over 10%, while Estonia, Latvia and Bulgaria show emissions rising by more than 20% between 2005 and 2020.[26] Regarding forestry, the volume of wood and the weight of carbon stored in the biomass of European forests have grown by 50% over the last 30 years.[27] However, the condition of these forests is deteriorating as mean foliage loss of trees increased at 19% of monitoring plots.[28] Romania (12,8%) and Portugal (10,6%) show a large share of damaged forest area.[29]

To combat desertification and enhance carbon sinks, several countries have set targets for forest landscape restoration in the framework of the Bonn Challenge in the Caucasus and Central Asia (e.g., Kyrgyzstan: 83,000 hectares of forest by 2025; Armenia: 266,500 hectares by 2050).[30]

a) Integrate adaptation, mitigation and just transition measures into agriculture policies and strategies.
b) Implement a just transition programme for the adaptation and mitigation of forestry use to climate change, including to halt deforestation and incentivize afforestation.
c) Stimulate measures such as tillage and modern manure management in fields, managed fertilizer use, and reduced energy consumption in the agriculture sector to minimize GHG emissions and reduce health impacts.
d) Improve the awareness of farmers about climate change mitigation and adaptation measures, including by investing in the skilling, upskilling and reskilling of workers.
e) Develop and implement an inclusive action plan on adaptation to climate change in the agricultural sector, taking into consideration the relevant agroecological conditions and focusing on sustainable land and water management in changing climate conditions.
f) Ban environmentally harmful subsidies and financial flows and realign investment in nature-based solutions.
g) Integrate education on sustainable farming practices and environmental stewardship into curriculums.

[24] https://w3.unece.org/PXWeb/en/CountryRanking?IndicatorCode=6
[25] https://www.eea.europa.eu/data-and-maps/daviz/ghg-emissions-by-aggregated-sector-5#tab-dashboard-02
[26] https://www.eea.europa.eu/ims/greenhouse-gas-emissions-from-agriculture
[27] https://foresteurope.org/wp-content/uploads/2016/08/SoEF_2020.pdf, p. 16
[28] https://foresteurope.org/wp-content/uploads/2016/08/SoEF_2020.pdf, p. 17
[29] https://w3.unece.org/PXWeb/en/CountryRanking?IndicatorCode=321
[30] https://unece.org/fileadmin/DAM/timber/meetings/2019/20191216/Forest_Landscape_Restoration_in_Central_Asia_and_the_Caucasus.pdf

Industry

After energy and transport, industry is the third biggest source of GHGs in Europe. In many countries across the Europe and Central Asia region, industry contributes at least one fifth to the respective GDP: Azerbaijan (55%), Norway (48%), Ireland (41%) show the highest numbers, followed by Kazakhstan (32%), Belarus (31%), Poland (28%) and Czechia (27%).[31] European and Central Asian economies show large differences in their CO2-intensity per unit of GDP, with Turkmenistan (0.63kg CO2 per unit GDP), Uzbekistan (0.44kg), Bosnia and Herzegovina, and Kazakhstan (both 0.43kg) among the most carbon-intensive industries. Emission reductions from the industrial sector can significantly contribute to the achievement of national emission targets. Practice in Europe shows that cost increase per ton of CO2 covered by the EU ETS stimulated the sector's emissions decline by more than 35% between 1990 and 2017.[32]

a) Establish national emission-reduction goals in industrial processes and waste management.
b) Adopt policies and economic incentives to ensure high energy-efficiency standards for industry as well as for efficient equipment.
c) Promote the incorporation of climate-related risks into the corporate governance, strategic planning, climate reporting, due diligence in investments, supply chain management and procurement of major state-owned entities.
d) Address GHG emissions from the waste sector through an integrated approach.
e) Assess and address the impacts of extreme weather events on the industrial and mining sectors, to prevent, prepare for and respond to accidents caused by these events.
f) Support initiatives that foster collaboration between industry and educational institutions to provide training and mentorship programs for young people interested in pursuing careers in green industries and technologies.

[31] https://w3.unece.org/PXWeb/en/CountryRanking?IndicatorCode=11
[32] https://www.eea.europa.eu/data-and-maps/daviz/ghg-emissions-by-aggregated-sector-5/#tab-chart_3

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Issue-based Coalition on Environment and Climate Change

A regional UN platform supporting UN Country Teams through knowledge and policies on environment and climate change to help catalyze action by Member States on the 2030 Agenda.