

UNECE support for climate action



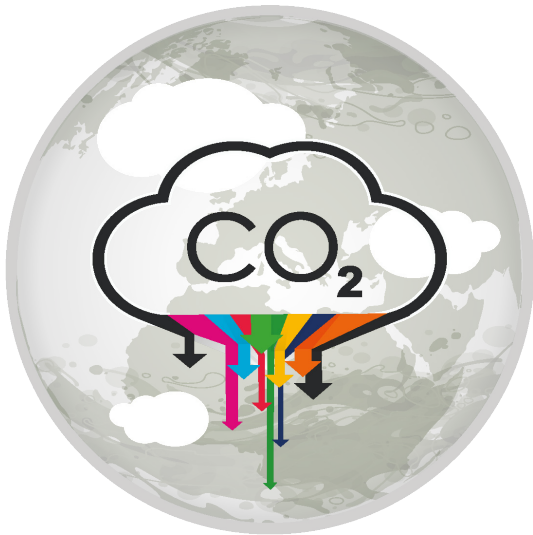
UNECE



UNECE support for climate action

- The UNECE region – stretching over North America right across Europe, covering the Balkans, the Caucasus and Central Asia – is a major source of greenhouse gas emissions, responsible for [34% of the world's CO₂ emissions from fossil fuel combustion](#). From wildfires to flooding, heatwaves and drought, the region is increasingly forced to deal with the impacts of climate change, on homes and livelihoods, on food and water, on infrastructure and on ecosystems.
- Faced with the climate emergency and to meet the objectives of the Paris Agreement and Sustainable Development Goals, CO₂ emissions need to be halved between now and 2030, both globally and in the region. UNECE member States are taking important climate action in key areas. Through its norms, standards, conventions and policy assistance, UNECE provides [practical tools to support countries' efforts for both climate change mitigation and adaptation](#).





Driving down emissions

- Action to tackle air pollution and reduce greenhouse gas emissions is mutually reinforcing. UNECE's [Air Convention](#) is a unique instrument that helps 51 countries work together for cleaner air on a broad regional basis, reducing emissions of key air pollutants by 40% to 80% in Europe and by 30 to 40% in North America since 1990. Its amended Gothenburg Protocol is the only international legally-binding agreement to tackle short-lived climate pollutants including black carbon – some 680 times more heat trapping than CO₂ – and targets key ground-level ozone precursors.
- As the United Nations platform for transport by road, rail and inland waterway and custodian of 59 UN Conventions, UNECE provides a [harmonized legal and regulatory framework to decarbonize mobility and transport](#). This includes facilitating the shift to more energy efficient and greener modes such as rail and inland waterways for long distance haulage and passenger journeys, and to further reduce their environmental footprint through measures such as regulatory provisions on pollution reduction for inland waterway transport.
- [UN vehicle regulations](#) and Global Technical Regulations developed at UNECE enable [harmonized measurement of fuel consumption and tailpipe CO₂ emissions](#) from cars and vans. These harmonized international standards also enable the widespread introduction of renewable and sustainable fuel sources for vehicles including electric, hybrid and hydrogen.
- Doubling the current level of cycling would reduce greenhouse gas emissions by 8 million tonnes of CO₂ equivalent with indirect economic benefits of €1.1 billion per year in the region. The first [Pan-European Master Plan for Cycling Promotion](#) provides a blueprint to help countries achieve this by 2030.
- Human-caused emissions of methane - with an instantaneous global warming potential 120 times higher than that of CO₂ - are rising, and must be reduced by 40-45% by 2030 to limit global temperature rise to 1.5°C. Readily available measures – of which half are in the fossil fuels sector – can reduce 2030 methane emissions by 30% if fully implemented. UNECE [guidance for methane management in the oil and gas sectors](#) and for both [operating](#) and [abandoned coal mines](#) can support concrete action now.



- Buildings account for 40% of CO₂ emissions through the energy services they require and around one third of the global consumption of materials. [Framework Guidelines for Energy Efficiency Standards in Buildings](#) developed by UNECE provide a set of principles to improve sustainability in the conception/design, construction, operation, maintenance, and decommissioning/recycling of buildings and their components. The Guidelines provide the basis for the High-Performance Buildings Initiative that seeks to improve health and quality of life while advancing decarbonization of the global buildings supply chain. The [#Housing2030](#) initiative launched by UNECE, UN-Habitat and Housing Europe, will further strengthen action, supporting decision-making by providing examples of climate policy tools that can help in the implementation of climate neutral and affordable housing solutions.
- As part of comprehensive [policy dialogue and cooperation to accelerate the region's sustainable energy transition](#), UNECE helps countries to develop national strategies on [energy efficiency](#), [renewable energy](#) and low-carbon development. Recent examples include Albania, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Georgia, Kazakhstan, Moldova, Russian Federation, Serbia, and Ukraine. With time running out and fossil fuels still accounting for over half of electricity generation in the region, a [UNECE technology brief](#) notes the potential role of nuclear power – which currently provides 20% of electricity generated in the region and 43% of low-carbon generation – to decarbonize the energy system and energy intensive industries, as part of a broader portfolio alongside deploying other sustainable low- or zero-carbon technologies.
- Coal-based infrastructure is at the heart of industrial complexes that include mines, power stations, steel production, other affiliated industries, and urban areas. The substantial industrial and urban ecosystems that have developed around coal facilities represent an important socio-economic and hence political barrier to diversifying away from coal mining. UNECE raises awareness of the need for adequate consideration of these issues, [calling on countries to support a just transition](#) through industrial modernisation to address short-term political drivers, notably employment in coal mining regions, that impede real action on climate change and energy for sustainable development.



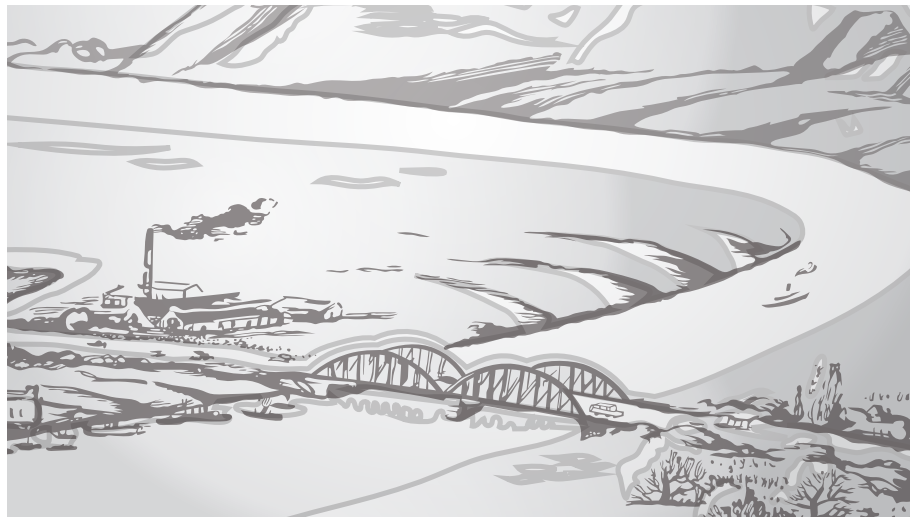


Supporting adaptation



- The [Water Convention](#) provides a global legal and intergovernmental framework for cooperation between countries on [climate change adaptation in shared basins](#), which are home to more than 40% of the world's population. Working together across borders is essential to strengthen resilience to water-related disasters including floods, droughts and storms, and helps access climate finance for adaptation efforts. The Water Convention helped to increase resilience to climate change in 5 major basins directly (Chu Talas, Dniester, Drin, Neman and North Western Sahara Aquifer System, with a total population of around 35 million persons). The Water Convention's global network of basins working on climate change adaptation has supported 13 additional basins to implement transboundary adaptation measures, strengthen capacities, share knowledge and support basins in accessing finance for climate change adaptation.
- However, increased commitments are needed in shared basins for climate change adaptation and to reduce climate-related disasters, according to the second [reporting exercise for SDG indicator 6.5.2 on transboundary water resources management](#), supported by co-custodians UNECE and UNESCO. In 2020-2021, climate change adaptation is referred to in less than a half of responses among the tasks and activities of the joint bodies responsible for transboundary cooperation and as an area of cooperation under operational transboundary arrangements (47% and 43% respectively). Around 70% of responses included disaster risk reduction (with a focus on floods and droughts).
- The UNECE-WHO/Europe [Protocol on Water and Health](#) can strengthen communities' resilience to the effects of climate change, including water-related disasters linked to extreme weather events, and water scarcity. Activities focus on building awareness, evidence and capacities, while also helping to set national targets towards increasing resilience of water supply and sanitation services.

- From road and rail networks to ports, airports and inland waterways, critical transport resources are facing unprecedented threats from a climate which is already changing. For instance, over 60% of EU seaports may be under high flood risk by 2100, causing disruptions to operations and damages to port infrastructure and vessels, especially along the North Sea coast, where the traffic of over 500 ports accounts for up to 15% of the world's cargo transport. UNECE is leading pioneering work to [map key risks and hotspots, and to build resilience of transport infrastructure and operations](#) in the region by identifying the most suitable and cost-effective adaptation measures.
- Increasingly frequent and intense extreme weather events such as floods and heavy storms bring heightened risks of Natural Hazards Triggering Technological Disasters (called Natech accidents). The [UNECE Convention on the Transboundary Effects of Industrial Accidents](#) helps countries to prevent such accidents and to prepare for and respond to them, should they occur, focusing on transboundary aspects. Support includes guidance development, capacity building and by contributing to projects and workshops. [Words into Action guidelines on man-made/technological hazards](#), prepared together with other international organizations, contain a dedicated section on Natech risk reduction. Cross-sectoral guidance which addresses aspects on Natech risks has also been prepared under UNECE's auspices, e.g. on [land-use planning](#).
- Together with the [Convention on the Protection and Use of Transboundary Watercourses and International Lakes](#), the two UNECE instruments provide a legal framework for addressing the risk of transboundary water pollution arising from industrial accidents, including those caused by Natech events. Their [Joint Expert Group on Water and Industrial Accidents](#) developed sector-specific guidance materials such as safety guidelines and good practices for [oil terminals](#), [pipelines](#) and [tailings management facilities](#). It also developed checklists, such as on [transboundary contingency planning](#), and supports countries in their application.
- To [help local governments better withstand shocks and stresses](#), including in relation to climate change, UNECE – together with UN Regional Commissions, UN-Habitat and the UN Capital Development Fund – is supporting 16 cities globally to design, implement and monitor sustainable, resilient and inclusive COVID-19 economic and financial responses, recovery and rebuilding plans. In the UNECE Region these include Tirana (Albania), Bishkek (Kyrgyzstan), and Kharkiv (Ukraine).





Harnessing environmental action and nature-based solutions



- [Environmental Performance Reviews \(EPRs\)](#) and the [Protocol on Strategic Environmental Assessment](#) help countries to integrate climate change measures into policies and planning. The fourth cycle of EPRs strengthens the in-depth assessment of climate change impacts on priority sectors, mainstreaming climate adaptation, and greenhouse gas mitigation. EPRs have been conducted for some 25 countries to date.
- The UNECE region is home to 42% of the world's forests, accounting for a net biomass carbon sink worth 433 million tonnes of carbon per year, and a living biomass carbon stock in forest land worth about 93 billion tonnes. UNECE/FAO provide wide-ranging support for the [protection and sustainable management of these precious forest resources](#). Among many areas covered are [mobilizing science and policy expertise on boreal forests](#), which are [the world's largest terrestrial carbon storehouse](#); promoting the use of wood in construction, which offers a material with carbon emissions 40% lower than concrete and 30% lower than steel; and advancing the [sustainable use of wood energy](#) – the leading source of renewable energy in the region, accounting for 35.4% of renewable energy supply for 31 countries.



- UNECE has already supported six countries in the Caucasus and Central Asia (Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan) in their commitment to restore around [3 million hectares](#) of degraded land by 2030 under the Bonn Challenge. At a [Ministerial meeting on 12 October 2021](#), countries in Eastern and South-Eastern Europe have committed to restore more than 4 million ha of land by 2030 in contribution to the UN Decade on Ecosystem Restoration.
- Tree planting in urban areas can unlock important benefits: a single tree can store up to 150 kg of CO₂ per year, while trees also regulate urban temperatures, help limit erosion and flooding, and contribute to biodiversity. Over 20 cities have already pledged to plant some 11 million trees as part of the [Trees in Cities Challenge](#) launched by UNECE and Mayors in 2019.



预览已结束，完整报告链接和二维码如下：

https://www.yunbaogao.cn/report/index/report?reportId=5_322

