

UNECE and Climate Change

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Introduction

We are the last generation with the ability to stop climate change. If we fail, it will be a historic mistake. But there is no single “silver bullet” that can address this challenge. We need to change behaviours through the right set of rules; we need to face and adapt to the impacts that cannot be avoided, in particular through better water management; we need incentives and solutions for more efficient use of resources, in particular in areas such as housing, energy and transport; we need to harness the still untapped potential of forests; we need good data to understand where we are so we can take informed decisions and design better policies; we need to develop new technologies that reduce the cost of climate change mitigation and facilitate the dissemination of existing ones. And we need to do this across multiple sectors in an open and transparent way that engages the public in finding solutions and taking action. All this is what we are already doing at UNECE, a driving force in combating climate change in the pan-European region where we transform global goals into practical solutions for climate change mitigation and adaptation.

[UNECE contributes to define a legal and regulatory framework that facilitates climate change mitigation](#): from the inclusion of black carbon and particulate matter in the revised Gothenburg Protocol of the Air Convention to the various regulations and standards reducing emissions and resource use. But climate change is an inescapable reality that will also require adaptation efforts. Extensive work has been carried out on climate change adaptation strategies for water management under the Water Convention. Infrastructure will play a major role in adaptation and UNECE has been engaged in assessing and offering solutions in transport.

Having the right data is the first step in understanding current trends and assessing the impact of any policies. UNECE has played an important role in developing appropriate climate change statistics, including through the release in December 2014 of *Recommendations on Climate Change-related Statistics*. The Kiev Protocol on Pollutant Release and Transfer Registers also provides a channel for collecting and making available information on pollutants. Our work on resource classification incorporates multiple dimensions and is helping not only governments but also investors to take more informed decisions.

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UNECE supports the development of policy frameworks that help countries to take action on climate change issues, including in relation to housing and forests. UNECE is also engaged in the assessment of policies and in providing recommendations in areas that have an impact on climate change, namely through its programme of Environmental Performance Reviews. We also contribute to better policymaking by carrying out studies that show the impact of different policy options in transport and other areas.

All these regulatory, standard-setting and policy advisory activities are carried out with the support of multi-stakeholder platforms, with the participation of representatives from governments, the business sector, academia and civil society. This is the way we work – but we also promote the general involvement of the public in environmental and climate change related matters through the Aarhus Convention.

Tackling the multiple challenges posed by climate change will require innovative approaches and innovative solutions. Technological change will open new policy options and reduce the costs of climate change mitigation and adaptation. Our pioneering work on carbon capture and storage facilitates the transition towards a carbon-free future. We are also engaged in innovative vehicle technologies and intelligent transport systems, which supports a “smarter” use and the shift away from fossil fuels.

The collective task ahead of us is huge. The costs of insufficient action are large. But the benefits go well beyond arresting climate change. A cleaner, safer, more resource-efficient world is within our reach. This is a work that admits no delays.



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Creating the regulatory framework to facilitate climate change mitigation

Improving air quality while fighting climate change

Poor air quality and climate change are closely linked. Burning fossil fuels releases both air pollutants and greenhouse gases. Thus, reducing air pollution from these sources will help to improve air quality and address climate change at the same time. Some air pollutants are also climate-relevant and thus known as short-lived climate pollutants (SCLPs), such as ground-level ozone (O₃) and black carbon, a component of particulate matter (PM). When black carbon deposits on ice and snow, it causes local warming and increases melting. In addition, fine particulate matter (PM_{2.5}) air pollution, of which black carbon also makes up a major part, is the leading environmental cause of poor health and premature death. The effects of air pollution are mostly being observed at the local level but a large volume of air pollutants are transported and can thus adversely impact far away regions. This is why international cooperation is crucial.

Reducing air pollution and mitigating climate change are increasingly being approached in a more integrated way. UNECE contributes to climate change mitigation through the [Convention on Long-Range Transboundary Air Pollution](#) (Air Convention), which sets emission targets for a number of key air pollutants. Much needs to be done but significant progress has already been achieved: parties to the Convention have reduced emissions of key air pollutants in Europe by 40% to 70% since 1990.

In 2012, Parties to the Convention broke new ground. The 1999 Protocol to Abate Acidification, Eutrophication and Ground-level Ozone (Gothenburg Protocol) was amended and became the first legally binding agreement containing obligations to reduce the broader spectrum of short-lived climate pollutants, notably fine particulate matter, including black carbon, and ground-level ozone precursors: nitrogen oxides and volatile organic compounds. This will further help in bringing about [co-benefits in the fight against climate change](#).

Regulations for cleaner vehicles

The transport sector is a significant source of greenhouse gas emissions, accounting for 14 per cent of the total. Around half of global emissions coming from inland transport and domestic aviation is generated in the UNECE region. And the demand for transport

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continues to grow, driven by expanding trade and increased personal mobility in the absence of appropriate public alternatives. It is clear that addressing climate change requires effective solutions for cleaner vehicles that can reconcile growing transport use with the need to reduce emissions.

UNECE has been contributing to climate change mitigation through different activities. In the framework of the [World Forum for Harmonisation of Vehicle Regulations \(WP.29\)](#), [it develops regulations increasing vehicles' energy efficiency and lowering emissions](#). Emission limits for gaseous pollutants have been reduced in the last decades by more than 95 per cent compared to the values established in 1970. Regarding particulate emissions, the levels are now much lower than those initially set up in 1990.

Effective regulations require appropriate measurements. WP.29 adopted in 2014 the Worldwide Harmonized Light-duty Test Procedure (WLTP), a new test cycle measuring engine emissions under conditions much closer to real driving conditions than the previous tests.



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Getting more for less: Resource efficiency supports climate change mitigation

Improving energy efficiency

Improving energy efficiency contributes to climate change mitigation by reducing the use of resources, which also increases competitiveness. The benefits of higher energy efficiency are large and go beyond climate change but progress remains below potential. Output per unit of energy in OECD countries is still around 40% higher than in the energy-intensive emerging market economies of Europe and Central Asia.

Benefits from higher energy efficiency can be reaped through the entire value chain, including not only consumption but also production, generation, transmission and distribution. Energy-efficiency projects often pay for themselves out of the savings made but there are barriers that prevent attracting the necessary investments, so appropriate action is necessary to unlock this potential. Many countries have started to implement energy efficiency policies but there is still a need to develop capacities in private and public sectors to identify, formulate, present and implement these projects.

UNECE recently published two studies that highlight best practices and incentives needed to stimulate and ensure successful energy efficiency policy outcomes. These publications – *Best policy practices for promoting energy efficiency* and *Analysis of national case studies on policy reforms to promote energy efficiency investments* – provide recommendations on measures that can catalyse new energy efficiency investments in countries and make significant improvements in energy efficiency in the UNECE region and beyond.

Promoting energy efficiency in housing

In the UNECE region, buildings are responsible for approximately one third of total final energy consumption and almost 40 per cent of CO₂ emissions from combustion. The majority of buildings that will exist in 2050 have already been built. It is, therefore, crucial to optimize the energy performance of existing residential buildings in order to reduce emissions and energy consumption. There are energy-efficient technologies that can reduce a building's energy consumption by 30 to 50 per cent without greatly increasing investment costs. Yet achieving energy efficiency in buildings remains a major challenge.

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To assist member States in improving the sustainability of their housing sector, UNECE developed an [Action Plan for Energy-Efficient Housing](#). This Action Plan lists a range of measures aimed at removing barriers to energy efficiency and progressively moving towards a low-energy and ultimately zero-energy and carbon neutral housing sector. As a follow up to this plan, the report on *Good Practices for Energy-Efficient Housing* provides some successful practical examples that can inspire action, in particular in transition countries.

In 2015, UNECE endorsed [The Geneva UN Charter on Sustainable Housing](#) – a non-legally binding document that aims to support member States as they seek to ensure access to decent, adequate, affordable and healthy housing for all. The Charter recognises that housing and human settlements need to become resilient to extreme weather events, including those caused by climate change. Housing should be planned, constructed and used in a way that minimizes environmental impact and promotes environmental sustainability.

Making trade easier saves resources

The continued growth of trade globally and the adoption of the *WTO Trade Facilitation Agreement* in November 2014 have stressed the need for more environmentally friendly trade practices. The [United Nations Centre for Trade Facilitation and Electronic Business \(UN/CEFACT\)](#) promotes trade and business processes that are more resource-efficient and therefore have smaller environmental footprints. These include initiatives such as the promotion of paperless trade, single window systems and advance cargo notifications that reduce transit time at borders.



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Taking action for climate change adaptation

Building resilience through better water management

Water is the main channel through which climate change influences ecosystems and thus the livelihood and well-being of societies. Water-related disasters are the most destructive of all natural disasters. Since 1992 floods, droughts and storms have affected 4.2 billion people (95% of all people affected by disasters) and caused US\$ 1.3 trillion of damage (63% of all damage). But disasters respect no borders and floods often have transboundary consequences.

Transboundary cooperation will become even more crucial than today. Due to climate change, extreme precipitation events will very likely become more intense and more frequent by the end of this century. At the same time, droughts and low flows are expected to increase in number and become more severe. Many transboundary basins are particularly vulnerable to these changes. Building resilience becomes a major issue as climate change affects water quantity and quality, water temperature, water-related ecosystems and the magnitude and occurrence of extreme weather events such as floods and droughts.

[The UNECE Convention on the Protection and Use of Transboundary Watercourses \(Water Convention\)](#) helps countries in shared river basins to jointly adapt to climate change, making them more resilient to disasters and water scarcity. This includes developing some of the first transboundary adaptation strategies worldwide. Over 20 million people in the basins of the [Dniester](#), [Neman](#), [Chu-Talas](#) and other rivers will benefit from these strategies supported by UNECE. More than 30 basins covering more than 30% of earth's ice-free land surface have exchanged experiences on adaptation in the Convention's network.

The UNECE Water Convention addresses climate change adaptation in a comprehensive way by working at the policy and institutional levels as well as implementing concrete adaptation activities on the ground. This unique legal and intergovernmental framework facilitates the establishment of sustainable river basin organizations and supports mechanisms for climate change adaptation.

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The Water Convention, in partnership with the International Network of Basin Organizations (INBO), has also created a Global platform for exchanging experience on water and adaptation to climate change in transboundary basins and a Global network of basins working on climate change adaptation. Currently the network includes basins from all over the world, such as Chu-Talas, Congo, Dniester, Mekong, Niger, North-Western Sahara Aquifer System, Rhine and Senegal.

Five pilot projects (“Dauria going dry”, Chu-Talas, Dniester, Neman and Sava basins), most of them implemented in the framework of the Environment and Security Initiative (ENVSEC), have strengthened the capacity of the riparian countries and basins to adapt to climate change, by developing transboundary climate change impact and vulnerability assessments, strategic frameworks for basin adaptation and implementing adaptation measures. The Dniester basin is currently one of the most advanced in the world regarding inter-state adaptation to climate change.

Environmental assessments for climate change adaptation

When planning, we need to think ahead. And climate change is one of the factors that need to be brought into the picture. [The Protocol on Strategic Environmental Assessments \(SEA\) to the Espoo Convention](#) provides a mechanism for integrating climate change considerations into sectoral development plans and programmes, and thus increasing adaptive capacity. It requires the introduction of measures to prevent, reduce or mitigate adverse effects related to climate change.

Increasing the readiness of transport for climate change adaptation

Climate change can have serious implications for transport. Sea level rise, storm surges and waves are likely to induce major coastal impacts, including transient and permanent flooding of airports, roads, rail lines and tunnels. Flooding from extreme rainfalls/downpours, as well as other associated extreme events will increase the risks of disruptions or delays in transportation. Advance action is therefore required. In its comprehensive study of climate change impact and adaptation for inland transport, UNECE presented policy-oriented recommendations to improve the long-term sustainability of transport infrastructure with an emphasis on international connections. It also included best policy practices on transport network resilience against climate change impacts.



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Better information leads to better decisions

Statistics: the numbers that matter

Sound and relevant policy choices require high quality data on all aspects of climate change; on greenhouse gas emissions, on the drivers and impacts, and on adaptation and mitigation efforts. National statistical offices are the stewards of socio-economic and environmental information relevant to these data needs. However, existing data were not originally designed for analysis of climate change and its impacts. Therefore, they need to be fine-tuned for this purpose. UNECE has played a central role in harnessing the expertise of the statistical community to develop concrete measures to improve climate change related data by providing a platform for different actors to meet and take action.

In 2014, UNECE published the [Conference of European Statisticians Recommendations on Climate Change-Related Statistics](#), adopted by more than 60 countries and a number of international organizations. These were the first ever recommendations aimed at improving official statistics to support climate change analysis. The work also brought together statisticians and the climate community, and outlined a clear role for national statistical offices.

UNECE is continuing this work by providing a forum for producers and users of climate change-related statistics to discuss how to improve the use of official statistics for measuring the cost and impact of climate change and its mitigation and adaptation policies, and for calculating greenhouse gas emissions. UNECE is also developing a key indicator set for climate change that is in line with the SDGs, internationally comparable, and available to all countries around the world. A proposal on the final indicator set is expected in 2016.

Mapping out resources

Ensuring reliable and affordable supplies of energy with no adverse effect on climate is a challenge. Strong, reliable and lasting international standards such as the [United Nations Framework Classification for Fossil Energy and Mineral Reserves and Resources \(UNFC\)](#) helps us understand where we are by mapping the energy resources we have.

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UNFC is the only system that includes consideration of commercial, social and environmental impacts as well as project feasibility and technical uncertainty. It allows a direct comparison of projects based on fossil fuels such as oil, gas, coal with their no-carbon or low-carbon alternatives such as uranium or renewable energy resources. Many countries around the world are looking to apply the system nationally for the evaluation, classification, exploration, exploitation and investment in energy and mineral resources.

UNFC helps adding the renewable energy resources to the world's primary energy supply inventory, enabling us to better map and utilize these zero-emission energy resources. Important work is underway for renewable energy projects, starting with geothermal energy and bioenergy, as well as for underground storage of CO₂ for carbon capture and storage projects. A standardized system of classifying and comparing energy production from all types of projects will facilitate efficient allocation of investments among competing energy projects and accelerate the transformation of the global energy system towards a carbon-neutral system.

Tracking the sources of greenhouse gas emissions

Greenhouse gas emissions (GHG) can be traced back to their source through Pollutant Release and Transfer Registers (PRTRs). The UNECE [Protocol on PRTRs to the Aarhus Convention](#) requires governments to collect reports by industry and on a facility-by-facility basis and share this information online with the public. The Protocol on PRTRs is open to accession by all UN Member States.

The data, which is made available on the Internet, includes all substances covered by of the UNFCCC and Kyoto Protocol and can thus help countries meet the objectives of UNFCCC. Data of national pollutant registers supplements information needed to calculate national GHG inventories and can also be used to cross-check data derived from other sources and help identify gaps. In addition, this information can raise public awareness of major emitters of greenhouse gases and contribute to the demand for improved environmental performance from industry and other sources. Making emission data publicly available is already a powerful incentive for polluters to invest voluntarily in reducing their emissions.

Developing new measurement methods in transport

UNECE has carried out extensive work on technologies reducing harmful effects of diesel internal combustion engines, primarily concerning particulate matter. But good measurement is a precondition for being able to effectively monitor emissions. A group on *Particle Measurement Programme* was established to develop a new particle number measurement method and to deal with devices required for the measurement of different size particles. The evolution of regulatory instruments on emissions of local pollutants led to limit values for PM emissions of light vehicles that are today more than 30 times lower than 2 decades ago.

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Contributing to better policies

Supporting the transition towards carbon-neutral economies

One of the most urgent challenges facing countries across the world is how to boost growth, increase access to energy and improve food security while also combatting global warming. This implies evolving to a new sustainable economic model, departing from “business as usual” and redirecting consumption habits, investments, innovation and trade towards sustainable economic progress that is socially inclusive, decoupled from environmental degradation and carbon neutral.

We now have the science, technology, social and economic analyses to support the transition to an inclusive, green, low carbon economy. However, the changes we need are complex, as they are far reaching and interlinked. Transition strategies can succeed only if addressed in a systematic, whole-economy, whole-society level.

UNECE, in partnership with UNEP is assessing green economy approaches in the pan-European region in order to develop a strategic framework to facilitate the green transition in countries of the region. The strategic framework will equip them with a common vision and set of objectives, and a mix of voluntary actions to inspire national policies and strategies, facilitate the exchange of good practices, and advance cooperation. It will be tabled for adoption at the Environment for Europe (EfE) Ministerial Conference in Batumi, in June 2016.

Environmental Performance Reviews

Addressing climate change requires substantive, policy and legal analysis, with a particular focus on measures of adaptation and mitigation. UNECE Environmental Performance Reviews (EPR) assist countries in improving their environmental policies, management and performance. EPRs assess the progress a country has made in reconciling its environmental and economic targets and in meeting its international environmental commitments. EPRs also promote information exchange among countries on policies and experiences; help integrating environmental policies into economic sectors; promote greater accountability to the public and strengthens cooperation with the international community.

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UNECE reviews national climate change policies as part of its [EPR Programme](#). For example, climate change was recognized as a priority by Montenegro and Serbia in 2014 and the reviews included tailor-made recommendations.

Enhancing the contributions of forests to climate change adaptation and mitigation

Forests are one of the major reservoirs of carbon and their role could be further enhanced. In addition, the use of wood helps mitigate climate change in many ways. Compared to other materials, wood requires less energy to be extracted, processed and transported. It is perceived as a better insulator than other construction materials.

Wood is also seen as a source of clean energy, if appropriately managed and if using appropriate filters. In the UNECE region, the use of wood for energy continues to grow at almost a 5 per cent rate annually (2011 - 2013) and currently accounts for about half of all renewable energy.

Monitoring the state of forests and the use of wood products is the first step in understanding current trends and assessing the impact of any climate related policies. The UNECE/FAO work monitors the amount of carbon stored in forest pools, helps member States in developing evidence-based policies for sustainable forest management and communicates information on the products and ecosystem services, including mitigation of climate change, provided by forests. Existing policies encouraging the reduction of carbon emissions are monitored and reported in the [Forest Products Annual Market Review](#).

New initiatives have been launched. [The Rovaniemi Action Plan for the Forest Sector in a Green Economy](#), adopted in 2013, describes how the forest sector can make a contribution to mitigation and adaptation of climate change through substituting wood for non-renewable materials, promoting efficient use of wood raw material and storage of carbon in wood products and improving the forest capacity to manage risks related to changing climate.

Understanding the climate mitigation impact of different transport policy options

UNECE, in cooperation with the other four UN Regional Commissions, has developed a tool, [For Future Inland Transport Systems \(ForFITS\)](#), which compares the future impacts of different transport policy interventions on CO₂ emissions. This tool has facilitated the regular engagement of UNECE in policy dialogue with governments and municipalities. Pilot cases have been run in many countries, including in Ethiopia, Thailand, France, Montenegro, Chile and Tunisia. The feasibility to include new modules in the ForFITS model dealing, for instance, with Non-Road Mobile Machinery is currently being evaluated. The results of this project could be of particular interest to countries with significant agriculture and mining sectors.

Looking at linkages: health, transport and the environment

Addressing climate change can have multiple co-benefits. Active forms of transport, such as cycling and walking, reduce pollution and emissions but also bring significant health benefits. [The Transport Health and Environment Pan-European Programme \(THE PEP\)](#), jointly serviced by UNECE and WHO Europe, looks at these linkages and promotes sustainable urban mobility and transport, including public transport and non-motorized modes.

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Setting platforms for multi-stakeholder policy dialogue and engagement

In all our areas of activity, we engage with multiple partners – governments, business, academia and civil society at large. Our products – conventions, guidelines, policy advisory work, standards and regulations – are the result of participatory approach. We do this in our internal work but we also facilitate effective public participation in environmental matters, which results in better decision-making as well as greater ownership and buy-in by citizens. People's legal rights to information and participation, as enshrined in the [Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters \(the Aarhus Convention\)](#) greatly contribute to addressing the challenge of climate change.

The Aarhus Convention provides a model of good environmental governance. As environmental sustainability needs the involvement of all actors, the Aarhus Convention recognises the important roles of citizens and enables an active involvement of NGOs. The Convention also provides a solid framework for furthering transparency in climate change-related decision-making at international level. It is open to accession by all UN Member States.

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Renewable energy: Integrating progressively into future energy systems

Renewable energy technologies have multiple benefits: reducing the carbon footprint of the energy sector, improving energy security by diversifying the energy mix, encouraging innovation and high-tech manufacturing, and fostering energy access in rural and remote areas. The UNECE region has enormous potential for further renewable energy deployment in hydro, wind, biomass, solar, geothermal, and ocean, though the resources are not evenly distributed. Renewable electric generating capacity in the region amounted to 652.7 GW in 2011, or 48% of global renewable capacity (1,364 GW), and 25% of total regional power generation capacity.

The continuing decline in the cost of photovoltaic technology will drive a surge in investment in solar technologies. Cheaper technologies will open new opportunities for consumers and businesses to generate their own electricity, to store it using batteries and – in many parts of the world – to access power for the first time. But wider uptake of renewables requires addressing barriers to fair competition with conventional technology without resorting to long-term subsidies, implementing stable long-term energy policy frameworks, and deploying appropriate financial mechanisms.

In the past years, investments have been decreasing in several UNECE countries. They still lag behind the considerable advances achieved globally, although the region is highly promising for deployment of any kind of renewable energy technology.

UNECE provides a collaborative platform among its member States to exchange information, best practices and lessons learned about renewable energy deployment to attract further investment in renewable sources and other low-carbon technology. UNECE is working to increase the share of renewable energy in the global energy mix. Missing data is a major challenge, and UNECE has partnered with the [Renewable Energy Policy Network for the 21st Century \(REN21\)](#) and the International Energy Agency (IEA) to close data and information gaps, document the current status of renewable energy in the region and contribute to tracking systems on future progress in the region. Work on development of best practice guidance and standards has been initiated.

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Carbon capture and storage: a technological challenge already solved

If the world is to succeed in constraining CO₂ emissions to levels consistent with a less than 2°C rise in global temperatures, then Carbon Capture and Storage (CCS) will need to contribute about one-sixth of needed CO₂ emission reductions in 2050, and 14 per cent of the cumulative emissions reductions between 2015 and 2050 compared to a business-as-usual approach. It is the only technology option other than energy efficiency and shifting the primary energy mix to lower carbon fuels that can deliver net emissions reductions at the required scale. The *IPCC Fifth Assessment Synthesis Report* estimated that without CCS the cost of climate mitigation would increase by 138%.

Global CO₂ storage levels of at least one billion tonnes per year by 2030 need to be in place, and more thereafter. Delivering such an outcome will require collective commitment by governments and industry alike to fund CCS demonstration projects and development efforts in power and industrial applications at levels commensurate with the required abatement outcomes. Ensuring the availability of CCS will require regulatory and legislative support at all levels of government and international cooperation at project level so the necessary financing can be unlocked.

In order to facilitate this transition, UNECE developed [Recommendations on CCS](#) and on carbon capture, utilisation and storage (CCUS), which were endorsed by its 56 member States in November 2014. These were submitted to UNFCCC before the COP20 in Lima and were well received. Policies on CCS/CCUS should have parity with other no carbon/low carbon technologies regarding their climate mitigation potential, commensurate with the state of technological and infrastructure development. Governments should consider a broad array of fiscal instruments to encourage CCS/CCUS until carbon is properly and adequately priced. Capturing and storing CO₂ from all industrial sectors will be essential to reach climate goals. CCS/CCUS deployment will accelerate if governments work together to financially sponsor demonstration projects. Developed countries should be encouraged to invest in CCS/CCUS in developing countries. CCS developments need to be monitored and tracked globally so best practice guidance on CCS can be developed and disseminated.

Coal mine methane: a problem that can be eliminated

Methane is the second most important greenhouse gas. Destroying one tonne of methane is equivalent to destroying 25 tonnes of carbon dioxide in terms of climate change mitigation impact. Extraction, processing and transportation of coal releases methane. This makes the coal industry one of the largest sources of anthropogenic methane emissions.

One of the more effective near-term options to address this problem is the capture and use of methane from coal mines. This not only mitigates climate change, but delivers other important co-benefits including improvement of mine safety and productivity, localized energy production, and improvement in local/regional air quality. In addition, such projects can result in positive cash flows to the mine and serve as catalyst for investment.

UNECE promotes the reduction of greenhouse gas emissions from coal mines by developing and disseminating the [Best Practice Guidance for Effective Methane Drainage and Recovery in Coal Mines](#). UNECE and Poland are establishing an International Centre of Excellence, to be operational in 2016, to collect and disseminate best practices in sustainable methane management in coal mines.

Innovative solutions for transport

Replacing fossil fuels in transport by cleaner combustible sources is a major issue in the fight against climate change. The World Forum for Harmonization of Vehicle Regulations is engaged in the development of specifications for hybrid, electric, hydrogen and fuel cell vehicles. But innovation concerns not only new technological solutions. Eco-driving and better traffic management may be very cost-effective in obtaining a short-term substantial CO₂ reduction in the existing vehicle fleet. UNECE work promotes best practice sharing on innovative technologies and solutions such as [Intelligent Transport Systems \(ITS\)](#) through analytical activities and policy dialogue. ITS improve the efficiency of road transport by avoiding congestion and smoothing traffic flows, thus reducing vehicle generated GHG emissions. In this way, ITS can make an important contribution to the necessary shift towards environmentally friendly modes of transport.