



United Nations

What UNECE does for you

Economic Commission for Europe

Issue N° 20 – 11 May 2009

UNECE works to combat climate change



Marco Keiner, Director of the Environment, Housing and Land Management Division, presents the activities that UNECE undertakes to combat climate change

What is climate change and how can it be combated?

Climate change is caused by human activity that alters the composition of the global atmosphere. It comes largely from the emission of greenhouse gases (GHG) such as carbon dioxide, nitrous oxide, methane and fluorocarbons. Countries can mitigate climate change by curbing their emissions of GHGs and enhancing carbon sinks. However countries must also focus on adaptation to reduce the vulnerability of their natural and human systems against climate change effects.

What role does UNECE play in combating climate change?

The United Nations Secretary-General has put climate change at the top of the UN agenda. As one of the five regional commissions, UNECE coordinates UN support for action on climate change at the pan-European level through the regional coordination mechanisms mandated by the Economic and Social Council in its resolution 1998/46 (annex III). As a convener of global, regional and national action on climate change, UNECE works closely with other organizations, for instance the United Nations Framework Convention on Climate Change (UNFCCC).

UNECE has spearheaded the region's efforts to achieve the targets of United Nations Millennium Development Goal 7 on environmental sustainability.

How are UNECE climate change activities organized?

At present, our climate change work is spread across a number of divisions. To support the UN system-wide coherence ("Delivering as One") in the area of the environment, UNECE is developing a comprehensive strategy for its climate change activities that will strengthen and streamline interdivisional cooperation.

Which UNECE legal instruments are relevant to climate change?

The Convention on Long-range Transboundary Air Pollution and its eight protocols, all in force, aim to cut emissions of major air pollutants that have harmful effects on the environment and human health. Several of these pollutants can also influence global warming directly or indirectly – for example through the formation of ozone, a GHG. Recent studies have highlighted

the economic and environmental co-benefits that are possible by addressing air pollution control and climate change mitigation in an integrated way.

The Convention is now revising its most recent protocol (the 1999 Gothenburg Protocol), which calls for cuts in the emissions of several GHGs. Parties have decided that climate change mitigation will be an important factor in agreeing new obligations to reduce their air pollution. The scientific work to underpin negotiations is taking this into account, for example by ensuring that emission calculations are based on current and projected energy use that meets climate policy targets.



The Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention) has an important focus on adaptation to climate change and is in the process of preparing a guidance document on water and adaptation. This is the first attempt by any convention to flesh out a climate change adaptation strategy in the water sector with an emphasis on transboundary issues. The Parties are expected to formally adopt the guidance at their next meeting in November 2009.

The Convention's Protocol on Water and Health, which aims to achieve sustainable management of water resources and reduce water-related disease, is also highly relevant to climate change adaptation. It establishes joint or coordinated surveillance, early-warning systems, contingency plans and response capacities and mutual assistance to respond to outbreaks of water-related disease, especially incidents arising from extreme weather events.

The Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention) promotes civic participation in environmental issues by ensuring that the public has proper access to the environmental information held by public authorities, to judicial or administrative proceedings and to redress and remedy. Broad

knowledge of environmental information is vital, as it can help to raise awareness about climate change issues and strengthen synergies between mitigation and adaptation needs. The Protocol on Pollutant Release and Transfer Registers (PRTRs) is the first legally binding international instrument on PRTRs, which compiles information on emissions of GHGs and other substances from industrial sources. Such information is widely recognized as an important foundation for climate change mitigation efforts.

Finally, the Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention) provides a framework for considering transboundary environmental impacts in national decision-making processes. The Protocol on Strategic Environment Assessment, not yet in force, will ensure that Parties integrate consideration of the environment into their plans at an early planning stage. This is in line with the conclusions reached at the high-level event "The Future in Our Hands" convened by the Secretary-General in September 2007, as well as the recommendation of the Intergovernmental Panel on Climate Change that climate change mitigation and adaptation be integrated into an overarching sustainable development strategy. For example, adaptation measures can be usefully included in land-use planning and infrastructure design.

What is UNECE doing to increase the use of renewable energy sources, new technologies and standards for reducing emissions from vehicles?

The UNECE World Forum for Harmonization of Vehicle Regulations recently outlined a possible strategy for the automotive sector to shift from using fossil energy to using hydrogen and electric energy, a move that would contribute to the abatement of emissions. The strategy encompasses improved energy efficiency and the use of sustainable biofuels, through plug-in hybrid and electric vehicles.



The World Forum has also adopted amendments to UNECE Regulations to limit maximum admissible vehicle emissions for various gaseous pollutants and particulate matter. These amendments have resulted in substantial abatement of the emissions limits for new vehicles. Moreover, the UNECE Regulations were amended to include electric and hybrid vehicles with engines fuelled with liquefied petroleum gas or compressed natural gas. The World Forum is also considering new measures such as a common methodology and measurement method to evaluate environmentally friendly vehicles, hydrogen and fuel cell vehicles; the use of biofuels; engine management; intelligent transport; and tyre-pressure monitoring systems and tyres with low rolling resistance. Once consensus is reached, many of these measures are likely to be added to the UNECE Regulations.

The World Forum has likewise recognized that further reduction of emissions requires that cleaner fuel be available to consumers. As the lack of harmonized fuel-quality standards hampers the development of the new vehicle technologies, the Forum is committed to developing a necessary standard for market fuel quality as well as to enabling vehicles to use fuels that minimize vehicle emission levels.

The Transport Health and Environment Pan-European Programme (THE PEP) promotes more sustainable transport patterns and a better reflection of environmental and health concerns in transport policy. In particular, THE PEP promotes sustainable urban transport, including alternative modes of transport, in the region.

As the UNECE region is energy rich, what does UNECE do to promote energy efficiency policies and investment in energy efficiency?

Our Energy Efficiency 21 (EE21) programme promotes energy efficiency in member States as well as efforts to reduce their GHGs. The Financing Energy Efficiency Investments for Climate Change Mitigation project is supporting the creation of a privately managed equity fund with private and public sector partners. The fund will target energy efficiency and renewable investment projects in 12 UNECE countries. Outreach activities to other regional commissions in the context of energy efficiency for climate change mitigation are organized under the Global Energy Efficiency 21 project. Investment in energy efficiency is also emerging as one of the key options for policymakers and executives of energy industries to mitigate energy security risks and contribute to climate change mitigation. This perspective is reflected in the Energy Security Dialogue promoted at UNECE.

The Energy programme also promotes the recovery and use of methane gas from coal mines to minimize GHG emissions, and reviews prospects for cleaner electricity production from fossil fuels, including through incentives to invest in cleaner electricity production.

With its high GHG emissions and its significant potential for energy-saving measures, can the housing sector also play a role in climate change mitigation?

UNECE has a programme that aims to achieve maximal energy efficiency in the region's housing. Particularly in some parts of the region, progress has been hampered by low innovation capacity, outdated building codes and a lack of know-how about how to improve the thermal efficiency of buildings. UNECE is working to overcome these obstacles by promoting green building and by helping countries to embrace the latest energy-efficient construction techniques.

Are there other examples of cross-sectoral projects related to climate change?

Concerns over climate change have focused attention on exploring the possibility of replacing fossil fuels with alternative energy. Since 1998, UNECE has been running a major cross-sectoral project aimed at strengthening sustainable biomass supply derived from agro- and wood residues, whose use is an important alternative to the use of (food) crops for fuel. The project is helping to improve the logistics chain of biomass trade from producer to end-user. It also allows for the exchange of good practice in the private sector and explores integrative approaches that take into account environment, energy, trade and transport issues.

What does UNECE do to strengthen monitoring and assessment systems?

The region possesses vast areas of forest that have a vital role to play in climate change efforts. Forests sequester carbon from the atmosphere as they grow, thereby offsetting a significant portion of greenhouse gas emissions. Wood products are a store of carbon, keeping it from release to the atmosphere. Energy from wood can substitute for fossil energy, thereby reducing greenhouse gas emissions. UNECE work contributes to policy monitoring by reporting on qualitative indicators of sustainable forest management. We are currently developing a database on forest sector policies and institutions.

UNECE is also planning to improve and integrate emission statistics in the regular production and dissemination process of official national statistics. The goal is to consolidate the vast data resources in compiling emissions inventories.

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