



TOGETHER
for a sustainable future

OCCASION

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EMERGING COMPLIANCE REGIMES DIVISION

The Emerging Compliance Regimes (ECR) Division develops new programmatic approaches related to coordinating and focusing UNIDO's technical cooperation service delivery to help Member States meet the obligations imposed by a growing number of new environmental compliance regimes.

Several agreements, conventions and protocols are currently being discussed by the international community to take advantage of increased knowledge and new pollution control technologies. These also strive for the vigorous enforcement of current environmental regulations and standards. New and emerging international environmental compliance regimes are being discussed or are about to enter into force targeting such chemicals and compounds as mercury, hydrofluorocarbons (HFCs), nitrous oxide emissions in agriculture, and methyl bromide.

The ECR Division helps proactively engage UNIDO and its Member States with the requirements expected to result from new compliance regimes. This is done by developing project implementation methodologies and approaches to build up and further increase UNIDO participation in sustainable industrial development activities, particularly on environment-related, non-energy issues. At the same time, the Division implements activities of a learning or innovative nature, both in terms of project aim as well as funding approach. These focus on activities in yet uncovered sectors of industry, or sectors where more innovative approaches are needed.

The ECR Division furthermore designs, implements and contributes to national phase-out plans for ozone-depleting substances (ODS), as well as sector phase-out plans, which include the fumigant, solvent, process agent and production sectors. The Division also plans, develops, coordinates and implements technical cooperation programmes and projects related to obsolete ODS and other chemicals within the framework of applicable conventions. The ECR Division thereby helps to more effectively steer UNIDO's activities aimed at risk reduction and facilitation of sound gas and chemical management that reduces pollution releases to the atmosphere, water and soil.

The Division further assists developing countries to acquire available environmentally-friendly technologies and adopt them within recipient industries to fully comply with emerging environmental compliance regimes. This is achieved through cooperation on technical issues related to industry guidelines, conducting assessments, risk management and encouraging best practices, among other activities.

Minamata Convention

The objective of the Minamata Convention – which is currently pending ratification – is to protect human health and the environment from anthropogenic emissions and releases of mercury and mercury compounds. The Convention will do so by, inter alia, banning new mercury mines and phasing out existing ones, as well as banning the production, export, and import of a range of mercury-containing products by 2020.

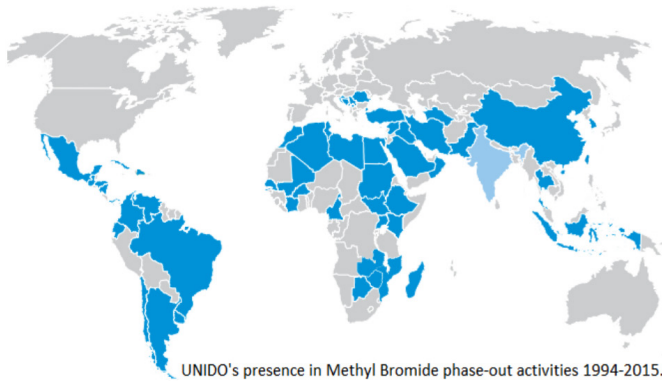
The Convention also includes the phase-out or reduction of manufacturing processes using mercury or mercury compounds and control measures on releases to land, air or water. Specific articles are dedicated to mercury wastes and contaminated sites as well as the establishment of national action plans for the artisanal and small scale gold mining (ASGM) sector.

The ECR Division will assist developing countries to comply with the Minamata Convention by launching assessments of the material flow of mercury in the country and the national capacity to implement a strategy to reach compliance. Furthermore, the Division assists Parties in preparing national action plans for the Minamata Convention.



Methyl Bromide

Methyl bromide is one of the ODS included in the Montreal Protocol. The compound is mainly used for fumigation in soil, storage, structures and pre-shipment, and quarantine purposes. While addressing most methyl bromide uses, the Montreal Protocol does not cover its use for quarantine and pre-shipment (QPS) treatments. Methyl bromide fumigation is often a preferred treatment for certain types of perishable and durable commodities in trade worldwide.



On the basis of UNIDO being the leading implementing agency in the elimination of methyl bromide under the Montreal Protocol, and using its strong capacity in international trade, the ECR Division is currently working on identifying potential alternatives for treatments for quarantine and pre-shipment purposes.



Hydrofluorocarbons (HFCs)

HFCs are powerful greenhouse gases that exacerbate climate change. HFCs, used primarily in air conditioning and refrigeration, can have up to 10,000 times the global warming potential of carbon dioxide. As such, parties to the Montreal Protocol have been discussing a possible amendment of the Protocol, and are expected to agree on an HFC phase-down.

In light of this trend, the ECR Division is assisting developing countries in conducting national surveys to investigate uses and identify suppliers and regulations on the use of HFC, and when possible to estimate emissions.

UNIDO is avoiding the use of HFCs as replacement for hydrochlorofluorocarbons (HCFCs) when feasible; encouraging HFC alternatives within developing countries by establishing demonstration projects as the most effective way to showcase low-global warming potential (GWP) technologies. Furthermore, the ECR Division is supporting innovative approaches to bring together the funding mechanisms of the Montreal Protocol and the Global Environmental Facility.

Nitrous Oxide (N₂O): Most forgotten GHG

Nitrous oxide (N₂O) is a greenhouse gas with a global warming potential nearly 300 times higher than carbon dioxide almost 13 times higher than methane. It is by now also the most significant ozone-depleting chemical emitted to the atmosphere.

N₂O mainly stems from agriculture, industry, biomass burning and indirect emissions from reactive nitrogen (Nr) leaching, runoff and atmospheric deposition. Of these, emissions from agricultural soil dominate; increased use of nitrogenous fertilizers and manure inputs drive emissions growth. It is expected that as long as the world population increases and, consequently, the need for food production, both agricultural land area and N₂O emissions are likely to continue to rise. The situation worsens if such projections also take account of potential increases in the demand for bioenergy.

The ECR Division addresses N₂O, particularly those emitted from agro-industrial production, which is currently included in the Kyoto Protocol but not actively addressed yet. It is expected that given the importance and relevance of the subject, the international community will, in the near future, establish control measures to mitigate not only N₂O emissions but also the nitrogen cycle, which is affecting soils and water resources.

In this context, the ECR Division is establishing a program to devise the best methodology to estimate agricultural N₂O sources, and to plan activities and possible interventions to overcome the challenges of projecting and mitigating emissions in the coming decades.

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