

OzoNews

A fortnightly electronic news update on ozone and climate protection and the implementation of the Montreal Protocol brought to you by OzonAction

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GLOBAL

1. **2024: A year of global environmental leadership for the Multilateral Fund**

16 December 2024 - In 2024, the Multilateral Fund for the Implementation of the Montreal Protocol reaffirmed its role as a pivotal leader in global environmental stewardship. The year marked unprecedented advancements in phasing down hydrofluorocarbons (HFCs) under the Kigali Amendment and amplifying energy efficiency efforts across 123 developing (Article 5) countries. In total, the Executive Committee approved 396 projects, channeling over US\$175 million in funding - a testament to the Fund's progress in driving sustainable solutions and impactful global change.



Leading efforts in HFC phase-down and HCFC phase-out

The 94th and 95th Executive Committee meetings were crucial in advancing the phase-down of HFCs, with the adoption of funding guidelines for developing nations and tailored support for small and medium enterprises (SMEs) in transitioning to low-global warming potential (low-GWP) alternatives. In 2024, 84 projects, totaling US\$24 million, will contribute to the phase-down of HFCs. During the same period, 168 projects - the equivalent of more than US\$80 million - will contribute to phasing out HCFCs in developing countries.

Energising change, optimising efficiency

Energy efficiency initiatives gained significant momentum in 2024. A US\$100 million operational framework - supported by an additional US\$40 million revolving fund - was launched to enable countries to adapt strategies to their unique national circumstances. In the manufacturing sector, the framework sets guidelines and provides incentives for producing energy-efficient equipment, including freezers, air conditioning systems, compressors, and heat pumps. The funding is complemented by a US\$20 million investment agreed upon at the 91st meeting, which continues to support activities in the servicing sector. This flexible funding strategy showcases the Fund's commitment to improving energy efficiency and curbing HFC usage in Article 5 countries, in alignment with global climate action objectives.

Enhancing operations and gender inclusivity

To maximise its impact and optimise accountability, the Executive Committee conducted an external assessment that sparked discussions on refining an evaluation policy for the Fund, with decisions anticipated in future meetings. Simultaneously, the streamlining of reporting requirements will reduce administrative burdens and enhance monitoring effectiveness. The past year also saw significant progress in gender mainstreaming, with an increase in women's participation across projects.

A year of collaborative success and forward vision

By effectively combining regulatory measures, technical support, and innovative performance-based financing, the Multilateral Fund has reinforced its commitment to phasing out environmentally harmful gases under the Montreal Protocol. This approach not only fosters environmentally friendly solutions but

also boosts progress in energy efficiency and climate change mitigation. The accomplishments of 2024 vividly illustrate the Fund's innovative and adaptable strategies, setting a strong foundation for ongoing progress in HFC reduction and the promotion of green jobs worldwide. As we transition into 2025, the groundwork laid this year asserts the Multilateral Fund's leadership, upholding its legacy of international collaboration and meaningful environmental impact.

For more information, [visit our annual newsletter here](#)

Source: Multilateral Fund Secretariat, 16 December 2024

Image: Multilateral Fund Secretariat

2. Kigali Amendment Ratifications: An update



Phasing down climate warming refrigerants and adopting energy efficient technology at the same time in the cooling sector is an effective sustainable cooling strategy being pursued under the Montreal Protocol. Countries that ratify the Protocol's Kigali Amendment commit to this path of adopting sustainable cooling. If universally ratified and fully implemented, the Kigali Amendment will be a formidable climate action tool with the potential to avoid up to 1°C by the end of the century. In terms of remaining within the 1.5°C Paris Agreement target, this is a considerable contribution.

At their [combined 13th meeting of the Conference of the Parties to the Vienna Convention and 36th Meeting of the Parties to the Montreal Protocol \(COP13/MOP36\)](#) convened in Bangkok, at the end of October 2024, the Executive Secretary, Megumi Seki, of the Ozone Secretariat urged parties who have yet to ratify the Kigali Amendment to action and aim for universal ratification by the time of the Kigali Amendment's 10th anniversary since its adoption in October 2026.

Elizabeth Maruma Mrema, Deputy Executive Director of the United Nations Environment Programme, reiterated the call to action in her [opening statement to the high-level segment of the COP13/MOP36](#), promising UNEP's full support, both at political and technical level, towards reaching this goal.

At the time of COP13/MOP36, 160 out of 198 parties had ratified. This was soon to change as parties took note and finalised their submission documents. Kuwait, the Sultanate of Oman and Papua New Guinea deposited their instruments of ratification or approval on 4, 8 and 12 November respectively.

Congratulations!

With these most recent ratifications the [total stands at 163](#) with 35 parties remaining.

The Montreal Protocol Ozone Secretariat, with support of UNEP, parties and partners, is committed to work with parties that have not ratified the Kigali Amendment to achieve the goal of universal ratification by the time of MOP38 in 2026, by providing information on the new obligations and benefits of the Amendment, identifying any potential assistance that parties may require and providing or helping to provide such support as may be necessary.

Source: [UNEP Ozone Secretariat](#), 28 November 2024

Image: UNEP Ozone Secretariat

3. UNIDO secures US\$ 28 million project funding to deliver climate solutions and protect the ozone layer



Montreal, December 2024 - Thirty-seven Member States of the United Nations Industrial Development Organization (UNIDO) will benefit from the US\$28 million in new funding secured from the Multilateral Fund for the implementation of the Montreal Protocol (MLF).

At its 95th Executive Committee meeting held in December 2024, the MLF approved numerous project proposals submitted by UNIDO on behalf of its member-states. The Committee meets twice a year, to discuss and decide on policies, procedures and guidelines of the Fund's operation and to approve investment and non-investment projects in developing countries. The earlier meeting in June approved approximately \$23 million, bringing the total UNIDO Montreal Protocol approvals to US\$51 million for 2024.

Projects approved this time relate to Hydrochlorofluorocarbons (HCFC) Phase-out and Hydrofluorocarbon (HFC) Phase-down plans in various countries, assisting countries in the preparation of national plans and inventories of controlled substances and chemicals under the Montreal Protocol. There were also projects aimed at introducing energy efficiency measures and promoting refrigeration technologies which use substances with low global warming potential (GWP), helping industries to leapfrog to climate-friendly production processes and stay competitive.

"UNIDO is at the forefront of accelerating innovation for climate action. As an implementing agency of the Montreal Protocol, our priority is to support industry to deliver innovative climate solutions and remain competitive," said Alois Mhlanga, Chief of Climate Innovation and Montreal Protocol division, who led the UNIDO delegation to the meeting. He also had meetings with various representatives from the member-states to review the implementation of projects in their countries and contributed to discussions on the future programming directions of the Montreal Protocol.

For more information: [Adnan Atwa](#), Head, Montreal Protocol Unit, UNIDO

Source: [UNIDO](#), 20 December 2024

Image: UNIDO

4. Newly-approved CCAC projects in the Cooling Sector

[Pathways to Stop Dumping of Climate-Harming Room Air Conditioners in Latin America and the Caribbean - \[CLG-24-004\]](#)

Under the Montreal Protocol, parties have adopted a decision to share responsibility in addressing the longstanding issue of dumping inefficient cooling equipment containing obsolete refrigerants. The project will conduct a region-wide RAC market study and a review of trade practices, policy landscapes, and other factors to gather detailed evidence on environmental dumping and the underlying factors that enable it in LAC.

The project seeks to spur action on the national level across the LAC region to increase availability of next-generation RAC technologies for consumers and to stop the dumping of inefficient and high-GWP technologies. It will support the adoption and strengthening of stop-dumping policies such as high-GWP refrigerant bans and more stringent performance requirements.

Furthermore, the project will support to regional efforts, including those of the CARICOM and the Central America Integration System (SICA), to inform regional policies that have been under development for several years, such as CARICOM's comprehensive Efficiency Labelling Scheme.

[Cote d'Ivoire - Complementing HFC mitigation and reducing cooling-related emissions by improving energy efficiency of cooling equipment in Cote d'Ivoire - CI-24-005](#)

This project aims to support Côte d'Ivoire leapfrog to superior cooling solutions, including innovative low – GWP refrigerants and modern, energy efficient (EE) cooling technologies for domestic refrigerators and room air conditioners, following a three-pronged integrated approach: 1. Enhancing stakeholders' capacity and systems, 2. implementation of key policy frameworks in accordance with international best practices, and regional ECOWAS standards/policies, and 3. Creating an exchange platform for strengthening the engagement and coordination among different efforts.

Specifically the project aims to:

- Strengthen relevant government stakeholders' capacity and systems to support the planning, programming and implementation of energy efficiency and SLCP related regulations/policies.
- The Government of Côte d'Ivoire endorses Minimum Energy Performance Standards (MEPS) and label policies regulating domestic refrigerators and air conditioners by the end of the project or soon after.
- Enable the Government of Cote d'Ivoire to adopt recommendations for Sustainable Public Procurement (SPP) best practices for refrigerators and room air conditioners by the end of the project or soon after.
- Enable the Government of Cote d'Ivoire adopts a Sustainable National Monitoring, Verification and Enforcement (MVE) framework.
- Strengthen national laboratories ability to verify compliance with updated standards and protocols by the end of the project.

[Ghana - Deliver a training programme for the implementation of new regulations on cooling appliances and ozone-depleting substances \[GH-24-007\]](#)

This project aims to achieve the following by its completion:

- Strengthen the capacity of customs officials to enforce regulations for the importation of cooling appliances and ozone-depleting substances.
- Strengthen the capacity of Ghana's supervisory agencies (Customs, Energy Commission and Ghana Standards Authority) for Monitoring, Verification and Enforcement (MVE) of ozone depleting substances.
- Disseminate communications materials on Ghana's efforts to prevent the environmental dumping of inefficient cooling appliances with banned or soon to be banned refrigerant.

For more details contact: [CCAC](#)

AFRICA

5. **Amendment de Kigali: le Congo renforce ses mécanismes de protection de la couche d'ozone**

Les activités de mise en œuvre de la première tranche 2024-2025 de l'amendement de Kigali ont été lancées, le 18 décembre, à Brazzaville par la ministre de l'Environnement, du Développement durable et du Bassin du Congo, Arlette Soudan-Nonault, à la faveur d'un atelier sur la lutte contre les substances qui appauvrissent la couche d'ozone et réchauffent le climat.

Organisé en partenariat avec l'Organisation des Nations unies pour le développement industriel (Onudi), cet atelier vise l'élimination progressive à l'échelle nationale et mondiale de la production de substances qui appauvrissent la couche d'ozone tels que les chlorofluorocarbures, (HCF) et les hydrofluorocarbures, (CFC) à l'horizon 2040.

La rencontre a rassemblé les représentants des organisations nationales et internationales, les autorités publiques, les experts techniques, les partenaires financiers et les acteurs du secteur privé qui vont débattre de grandes lignes du projet et exposer la stratégie de la mise en œuvre pour les prochaines années.

Les projets prononcés lors d'une réunion montrent une fois encore que le Congo est pleinement engagé à respecter ses objectifs environnementaux. Le comité exécutif, les agences d'exécution telles que l'Onudi et le PNUE sont prêts à soutenir le Congo.

Les objectifs stratégiques présentés reposent, entre autres, sur la réduction progressive des HCFC : l'adoption des technologies alternatives respectueuses de l'environnement pour remplacer les HFC.

Ainsi, l'atelier du lancement officiel des activités de mise en œuvre de la première tranche 2024-2025 de l'amendement de Kigali au protocole de Montréal est un événement qui a marqué une étape importante dans l'engagement du Congo pour la préservation de l'environnement et la promotion de solutions durables à la protection de la couche d'Ozone.

Adopté en 2016, l'amendement de Kigali vise à réduire de manière progressive les hydrofluorocarbures (HCF), des gaz à effet de serre puissants utilisés principalement dans les systèmes de climatisation, de réfrigération et les aérosols. En ratifiant la convention de Vienne et le protocole de Montréal, le Congo réaffirme son serment à protéger la couche d'Ozone tout en contribuant à l'atténuation des effets du

changement climatique. « *L'amendement de Montréal initial, adopté en 1987, est actuellement contraignant pour 198 pays. Jusqu'à présent, il régit l'élimination progressive, à l'échelle mondiale, de la production de substances qui appauvrissent la couche d'ozone comme chlorofluorocarbures (CFC). Ceux-ci étaient principalement utilisés comme réfrigérant dans les réfrigérateurs, ainsi que comme gaz propulseurs dans les pulvérisateurs* », a déclaré l'ambassadeur de l'Allemagne au Congo, Wolfgang Klapper. [Lire la suite...](#)

Source: [Agence d'Information d'Afrique Centrale](#), Fortuné Ibara, 21 December 2024

6. **NEMA sets deadline for HCFC gas imports, phase-out to begin in 2026**

Starting January 1, 2026, the importation of hydrochlorofluorocarbons (HCFC) gases will be prohibited.

Importers of refrigeration and air conditioning gases have until the end of 2025 to legally import hydrochlorofluorocarbons (HCFC), as Kenya moves to comply with international environmental standards.

Starting January 1, 2026, the importation of HCFC gases will be prohibited.

The National Environment Management Authority (NEMA) issued this critical reminder to all importers, stressing that 2025 will be the final year for HCFC imports in the country, in line with Kenya's obligations under the Montreal Protocol.

In a statement released on Wednesday, NEMA confirmed that Kenya's importation of HCFC gases is set to cease in accordance with the Montreal Protocol and its subsequent amendments, which Kenya has ratified.

Importers of these gases are urged to apply for their annual import licenses for the year 2025 from NEMA. Applications should be submitted through the Kenya Electronic Single Window System, with the final deadline for submission set for February 28, 2025.

"The year 2025 will be the last year allowed for Kenya to import HCFC under the Montreal Protocol. Importers are hereby reminded that the phase-out date for importation of HCFC for Kenya is 1st January 2026," NEMA said.

Montreal Protocol

The Montreal Protocol, which seeks to protect the ozone layer by phasing out substances harmful to it, has long been central to Kenya's environmental policies.

Under this international agreement, Kenya is allowed to import a maximum of 171.6 tonnes of HCFC in 2025, following a strict quota system.

Importers who continue to bring in HCFC gases after the deadline without a valid license will be in violation of the law under the Environmental Management and Coordination (Controlled Substances) Regulations, 2007.

These regulations govern the management of controlled substances, including their trade and use, and are key to ensuring compliance with the Montreal Protocol.

"Importation of these substances without a valid license shall be an offence under the Environmental Management and Co-ordination (Controlled Substances) Regulations, 2007," the statement clarified.

HCFCs, a widely used compound in refrigeration and air conditioning, have come under increasing scrutiny due to their detrimental impact on the environment.

These gases have been linked to the depletion of the ozone layer, which serves as a shield against harmful ultraviolet radiation from the sun.

Globally, efforts are underway to find alternatives to HCFCs. South Korea, for example, has made strides in developing new refrigeration technologies that do not rely on harmful gases.

Researchers are now exploring systems that utilise air as a refrigerant, capable of achieving temperatures as low as -60 degrees Celsius an innovation that could revolutionize cooling systems in the near future.

Source: [The Eastleigh Voice](#), 18 December, 2024

Image: The Eastleigh Voice

7. **Djibouti Customs takes final Steps towards the implementation of HS 2022**

18 December 2024 - Building on several support activities towards the implementation of the 2022 version of the Harmonized System for Djibouti Customs, the World Customs Organization (WCO) under the auspices of the EU-WCO Programme for Harmonized System in Africa (HS-Africa Programme), funded by the European Union, held a follow up workshop from 25 to 28 November 2024 in Djibouti, Djibouti.



The workshop was led by WCO experts in concerted efforts and focus on completing the transposition process for the 2022 Djibouti national tariff. It was attended by Tariff experts from Djibouti Customs who had participated in the first assistance mission in May 2024 and were involved in the revision and implementation process.

In his opening remarks, Mr. Simon MBIRATHU, Secretary General of the Djibouti Ministry of Budget, expressed sincere gratitude and appreciation to the WCO and the European Union for the support provided to his administration in validating the transposition of the national tariff from the 2017 to 2022 version. He emphasized the importance of the HS in international trade and the need to update to latest versions for correct commodity classification. He further stated that the implementation of HS 2022 marked a new stage in optimizing commodity classification by the Djibouti Customs administration in the context of the tax reforms undertaken by the Djibouti authorities, the modernization of the management system and the simplification of procedures.

To start the sessions, the Djibouti Customs presented the methodology adopted in the transposition phase making available a word file of the Djibouti HS 2017 national tariff, based on the French version of the COMESA 2017 Common Nomenclature. During the workshop, participants were divided into two groups, each led by the WCO expert to examine the document and ensure that it was accurately updated with the WCO HS 2022 amendments. Some discrepancies were identified and tackled to ensure an accurate and correct structure. In addition to the hands-on work done during the workshop, the WCO experts requested and emphasized the need for Djibouti Customs to further examine the national subdivisions in detail to avoid any inconsistencies.

As Djibouti moves forward with the completion of the implementation process following the validation work, the Customs administration plans to establish a series of follow-up activities with final implementation and adoption envisaged in February or March 2025, at the latest.

At the end of the workshop, advisor Mr. Abdourahman Aouad IZZI expressed appreciation on the support of the WCO and the European Union for the work so far conducted in Djibouti to assist with the implementation of HS 2022 assuring that internal working meetings would be set up to complete the process.

Contact: wcoHSAfrica@wcoomd.org

Source: [World Customs Organization](#), 18 December 2024
Image : World Customs Organization

8. Gaz à effet de serre : l'Amendement de Kigali, un pilier pour intensifier la protection de la couche d'Ozone

Brazzaville a accueilli le 18 décembre 2024, le lancement officiel des activités de mise en œuvre de la première tranche 2024-2025 de l'amendement de Kigali, un événement marquant pour la protection de la couche d'ozone au Congo. Sous l'égide de la ministre de l'Environnement, du Développement durable et du Bassin du Congo, Arlette Soudan-Nonault, cet atelier a été organisé en partenariat avec l'Organisation des Nations Unies pour le développement industriel (Onudi).

Cet atelier visait à discuter des stratégies pour éliminer progressivement les substances qui appauvrissent la couche d'ozone, notamment les chlorofluorocarbures (CFC) et les hydrofluorocarbures (HFC), d'ici 2040. La rencontre a rassemblé des représentants d'organisations nationales et internationales, des autorités publiques, des experts techniques, ainsi que des acteurs du secteur privé, tous unis par l'objectif commun de protéger l'environnement.

Les projets présentés lors de cet événement témoignent de l'engagement du Congo à respecter ses objectifs environnementaux. Le comité exécutif et les agences d'exécution, telles que l'Onudi et le Programme des Nations Unies pour l'environnement (PNUE), se tiennent prêts à soutenir ces initiatives.

Parmi les objectifs stratégiques figurent la réduction progressive des HFC et l'adoption de technologies alternatives respectueuses de l'environnement. L'amendement de Kigali, adopté en 2016, vise à réduire de manière significative la production de ces gaz à effet de serre, utilisés principalement dans les systèmes de climatisation et de réfrigération. [Lire la suite...](#)

Source: [AfriVe](#), by Patricia Angonemane, 21 December 2024

9. Transition climatique : la Tunisie en pointe dans la lutte contre les gaz nocifs pour la couche d'ozone



Réfrigérateurs, climatiseurs, pompes à chaleur et autres équipements nécessaires à la fabrication et au stockage des médicaments, fonctionnent aux gaz fluorés. Ces substances ont un impact fort sur le réchauffement climatique et sont responsables de l'appauvrissement de la couche d'ozone, qui protège les êtres vivants des rayons ultraviolets (UV) cancérigènes.

Des démarches sont en cours, aux échelles nationale, régionale et internationale, pour réduire l'usage des gaz fluorés et les substituer par des solutions plus respectueuses

du climat. Or, cette mue nécessite un accompagnement de l'industrie du froid à travers des formations et des campagnes de sensibilisation.

Selon le Coordinateur de l'unité nationale d'ozone à l'Agence Nationale de Protection de l'Environnement (ANPE), Youssef Hammami, la Tunisie a réussi à éliminer, totalement, les substances nocives à la couche d'ozone, suivantes : les chlorofluorocarbures (CFC), le Bromure de méthyle utilisé dans le secteur de fumigation des dattes et les Halons (secteur de lutte contre les incendies).

Mis en œuvre par l'ONUUDI et le PNUE, en étroite collaboration avec l'Unité nationale de l'ozone de l'ANPE en Tunisie, le protocole de Montréal, cadre international crucial pour la protection de la couche d'ozone, a permis une réduction significative de 55% de l'utilisation des hydrochlorofluorocarbures (Hcfc) en Tunisie,

avec des émissions passant de 723 t en 2022 à 325 t, actuellement. L'ambition du pays est de réduire de 80% les Hfc, le 1er janvier 2045.

Zouhaier Landoulsi, ingénieur et expert en équipements de réfrigération, de climatisation et de pompes à chaleur (RACHP), a souligné l'urgence de former les techniciens sur les bonnes pratiques de manipulation sécurisée des fluides frigorigènes naturels et inflammables. Il a recommandé la mise en place d'un cadre réglementaire adéquat pour bien se préparer à la mise en vigueur de la réglementation européenne concernant les gaz utilisés dans la frigorification et la climatisation et à l'application de la taxe carbone aux frontières.

L'UE, premier marché d'importation et d'exportation pour la Tunisie, a amélioré le contrôle et la mise en œuvre du règlement sur les gaz fluorés, et en particulier du système de quotas de HFC. Le nouveau système adopté alloue aux entreprises qui opèrent sur le marché européen, une quantité spécifique de HFC pouvant être mis sur le marché chaque année et calculée en tonne équivalent CO2. Cette démarche qui s'inscrit dans le cadre du mécanisme d'Ajustement Carbone aux Frontières dit "MACF", devrait être appliquée effectivement à partir de 2026.

Déjà, le coût des fluides de recharge a été majoré, en 2025, en fonction des taxes de ces fluides (augmentées, progressivement, chaque année), calculées sur la base de leurs équivalents en CO2. La taxe carbone à la frontière fixée à 15 € / teq CO2 en 2025, devrait atteindre 30 € / teq CO2, en 2045.

La Tunisie comme tous pays importateurs d'équipements de réfrigération, de climatisation, de pompe à chaleur et autres appareils fonctionnant aux gaz, devrait prendre en considération la réduction des quotas de hydrofluorocarbures (HFC). Le système de quotas HFC s'applique à la fois aux HFC préchargés dans ces équipements et en vrac, ayant un impact climatique significatif.

Madi Sakandé, président de l'Union des associations africaines des acteurs de la réfrigération et de la climatisation (U-3ARC) a souligné, dans une rencontre récente avec des médias tunisiens, que "la Tunisie, qui a réduit de 55% l'usage des substances Hydrochlorofluorocarbones nuisibles à la couche d'ozone et utilisées dans plusieurs secteurs, tels que celui de la réfrigération et de la climatisation, est une exception en Afrique".

"Dans un continent chaud, on doit investir dans le froid et le prendre en considération dans tous les secteurs. Il faut créer des agences autonomes du froid au niveau national, pour aider les acteurs de la filière (frigoristes, acteurs de la climatisation...) à s'organiser et à sécuriser l'usage des équipements de réfrigération domestique, commerciale, industrielle, et de transport et aussi à sécuriser et développer l'usage de la climatisation et pompes à chaleur stationnaires et de la climatisation mobile", a-t-il recommandé.

Dans la région du Proche-Orient/Afrique du Nord, le manque d'infrastructures pour la chaîne du froid contribue à des pertes alimentaires considérables, estimées à 55 % pour les fruits et légumes, 22 % pour les viandes, 30 % pour les poissons et fruits de mer, et 20% pour les produits laitiers, selon la FAO. "Cela équivaut à 215 kg de nourriture gaspillée par habitant, chaque année", ce qui aggrave l'insécurité alimentaire et entraîne des pertes économiques et environnementales significatives.

Une industrie de froid développée et organisée pourrait aider à lutter contre le gaspillage alimentaire, contribuer aux efforts de réduction des gaz à effet de serre, donner une valeur ajoutée à la production et créer des emplois, estime le responsable.

Source: [RTCI](#), 16 December 2024

Image source: RTCI

10. Strengthening Customs Cooperation Against Illegal Trade in ODS in Africa



The National Ozone Unit and Customs Twinning Workshop & Border Dialogues for the Economic Community of West African States (ECOWAS) and North Africa region took place at Sierra Palms Resort, Freetown, Sierra Leone from 20-22 November 2024. Organized by UNEP's OzonAction Compliance Assistance Programme (CAP) in collaboration with Sierra Leone's Environment Protection Agency, this pioneering event aimed to enhance regional collaboration in combating illegal trade in ozone-depleting substances (ODS). The workshop brought together 48 representatives from Egypt, Gambia, Ghana, Liberia, Nigeria, Sudan, and Sierra Leone,

fostering the exchange of strategies and practices to bolster enforcement and compliance under the Montreal Protocol.

Key Insights and Challenges

Participants discussed pressing issues, including the rise in illegal ozone-depleting substances (ODS) trade, refrigerant management complexities, and capacity gaps in enforcement. UNEP's Regional Coordinator, Anglophone Africa Network, Patrick Salifu, emphasized the pivotal role of customs officers as frontline defenders of the Montreal Protocol, advocating for institutionalized training, risk profiling, and stakeholder collaboration. Sierra Leone's Assistant Commissioner John B. Amara highlighted the importance of border inspections and capacity-building while acknowledging challenges like smuggling networks and transitioning costs.

The Honourable Deputy Minister of Environment and Climate Change of Sierra Leone Ms. Mimi Yeama Soba-Stevens delivered the keynote address and commended the Protocol's global success in mitigating ozone depletion. The Minister called for innovative solutions, stronger networks, and collective action to sustain environmental stewardship and uphold the Protocol's legacy.

Strategic Pathways for Action

The workshop highlighted strategies to integrate Montreal Protocol controls into customs training, establish online permit systems linked to the Customs' Asycuda World system, and manage seized illegal refrigerants. Discussions also addressed financing mechanisms, counterfeit refrigerant identification, and enhancing enforcement tools. Emphasis was placed on cross-border cooperation and knowledge sharing to strengthen regional efforts in combating ODS smuggling.

Building a Sustainable Future

The event marked a significant step in advancing regional and international cooperation to protect the ozone layer. Participants reaffirmed their commitment to compliance with the Montreal Protocol. They pledged to continue building partnerships, adopting innovative enforcement mechanisms, and addressing emerging challenges to ensure a sustainable, ozone-safe future.

This workshop serves as a model for leveraging collective expertise and resources to combat illegal ODS trade and underscores the power of regional collaboration in achieving environmental sustainability.

The workshop is part of the 2024 work plan of UNEP CAP to support countries in implementing their Montreal Protocol commitments.

For more information:

[Patrick Salifu](#)

UNEP Regional Network Coordinator, Anglophone Africa

[Florence Asher](#)

UNEP Programme Management Officer

Source: [UNEP OzonAction](#), 20-22 November 2024

Image: UNEP OzonAction

ASIA AND THE PACIFIC

11. EPA seizes HFC gases in illegal import investigation

The Environmental Protection Authority (EPA) has seized hydrofluorocarbon (HFC) gases valued at more than \$1 million in a joint operation with New Zealand Police and New Zealand Customs Service investigating illegal imports.

12 December 2024 - The gases are mainly used in heat pumps, air conditioning, and refrigeration and in some medical devices.

“The EPA is cracking down on operators who import and sell cheap bottles of HFCs without applying for a permit or paying a levy to cover the greenhouse gas emissions of the HFCs,” says the EPA’s Compliance, Monitoring and Enforcement General Manager, Gayle Holmes.

“Illegal importers are undercutting legitimate operators and, in some cases, selling contaminated HFCs that could damage vehicles and equipment.”

HFCs are synthetic greenhouse gases with a high impact on the climate despite being emitted at relatively low quantities. They can have global warming potentials of up to 14,800 times that of carbon dioxide.

In New Zealand, HFCs are controlled under the Ozone Layer Protection Act and the Climate Change Response Act. Since 2020, New Zealand has been phasing down the use of HFCs as part of an international effort expected to avoid 0.5 degrees Celsius of global warming by 2100.

“There are rules around HFC imports so New Zealanders can have confidence that we’re reducing the use of these potent greenhouse gases that contribute to climate change,” says Gayle Holmes.

As part of our investigation, several search warrants were executed across New Zealand. We have so far seized 3 tonnes of HFCs and the investigation remains ongoing.

Offences can carry a fine, and in some cases, up to five years’ imprisonment.

We encourage anyone being offered bottles of HFCs at significantly lower than market price to contact our investigations team in confidence at investigations@epa.govt.nz.

Anyone importing bulk HFCs needs a permit under the Ozone Layer Protection Act and must be registered as a participant in the Emissions Trading Scheme. Bulk HFCs are containers of new or recycled HFC gas in an unprocessed form, alone or in a mixture.

Permits are not needed to import HFCs in goods, such as HFCs in car air conditioning or in fire extinguishers. Goods containing synthetic greenhouse gases, including HFCs, are subject to a levy under the CCRA.

More information about HFCs can be found at : [The rules for HFCs](#)

Source: [EPA](#), 12 December 2024

12. Technology transfer to KIMIA Malaysia concludes Phase II of hydrochlorofluorocarbons (HCFC) phase-out plan



UNDP in Malaysia, Singapore, and Brunei Darussalam today paid a visit to Department of Chemistry Malaysia (KIMIA Malaysia) to witness the successful transfer of Gas Chromatography instrumentations for sampling and testing Ozone-Depleting Substances (ODS). The analysis obtained from the instrumentations will enable the Department of Environment (DOE) Malaysia to enforce regulations for controlling ODS in the country. This technical procurement demonstrates how UNDP local and global expertise, in close collaboration with partners like KIMIA Malaysia, supports Malaysia in achieving its sustainable development goals.

The technology investment is part of a capacity building initiative between KIMIA Malaysia and the Department of Environment Malaysia, under Phase II of the Hydrochlorofluorocarbons (HCFC) Phase-out Management Plan (HPMP). The HPMP programmes are facilitated by UNDP, with funding support from the Multilateral Fund for the Implementation of the Montreal Protocol.

HPMP II, which was implemented from 2017 to 2024, comprised of a combination of interventions such as technical assistance, technology transfer investments, training, and policies and regulations.

“Looking ahead, our next goal is to develop a reliable refrigerant analysis method to ensure the Environmental Quality (Refrigerant Management) Regulations 2020 can be enforced by the DOE by 2025.

“As soon as we complete this phase of the project, it’s however just the beginning of a much larger global effort to protect the ozone layer and fight climate change. The knowledge, equipment, and resources we have gained through this project will help Malaysia achieve its environmental goals and contribute to global efforts to protect our planet at large,” said Tuan Haji Shafek Hamlan bin Abdul Hamid, Senior Director, Drinking Water, Food and Environmental Safety Analysis Centre at KIMIA Malaysia.

The capacity building project is part of Malaysia’s broader plan to eliminate ozone-depleting substances, supporting the nation’s commitment to the Montreal Protocol and protection of the ozone layer. In October 2024, [Phase III of the HCFC Phase-out Management Plan](#) (HPMP III) was launched by YB Nik Nazmi Nik Ahmad, Minister of Natural Resources and Environmental Sustainability and the project will support Malaysia towards achieving a full phase out of HCFCs by 2030.

UNDP looks forward to continuing the collaboration with partners namely NRES, DOE, Royal Malaysian Customs Departments and KIMIA Malaysia under HPMP III, and supporting the Government’s goal of eliminating HCFCs across the nation by 2030.

Source: [UNDP – Malaysia, Singapore and Brunei Darussalam](#), 9 December 2024

Image source: UNDP

EUROPE AND CENTRAL ASIA

13. The results of the last AREA internal survey on training & certification on f-gases and alternative refrigerants are out!

The proportion of F-gas certified personnel trained on alternatives has significantly increased in Europe since our last survey published in 2021. This is one of the main outcomes of an internal survey which also looked at F-Gas certification. However, with the new product bans and phase down included in the new F-gas Regulation adopted in February 2024, we can predict than our initial forecast that more than 115 000 technicians will need to be trained in the coming years is underestimated.



Around 367,000 refrigeration, air conditioning and heat pump (RACHP) personnel are F-Gas certified in the 18 EU countries covered by AREA membership.

Based on the data shared by 16 national members, we gladly note that the proportion of F-gas certified personnel trained on alternatives has significantly increased since our last survey published in 2021. In the European Union, HFOs has the highest rate with 40%, but with the most important differences between the countries, from 0 to 100%. HCs score 29% and 19%, depending on whether the equipment is small or large. We also estimate that 21% of F-gas certified personal are trained on CO2 and 12% on Ammonia.

Considering the new product bans and phase down included in the new F-gas Regulation adopted in February 2024, the risk of shortage of contractors trained on alternative refrigerants in the coming year cannot be ignored. Fortunately, the mandatory certification on alternative refrigerants introduced in the new Regulation is a key aspect to increase the number of contractors with the necessary level of competence to ensure safe, efficient and reliable handling of these refrigerants.

Still, we can predict that our initial forecast that more than 115 000 technicians will need to be trained in the coming years is underestimated considering the ambitious phase down adopted by the EU Institutions.

Looking at the EU objectives for the roll-out of heat pumps, we can approximate that 150 000 technicians will be needed to achieve the European objectives of installing at least 10 million additional heat pumps by 2027, whereas this number increase to 300 000 technicians for a total additional deployment of 30 million or more heat pumps by 2030 (as compared to 2020).

The RACHP sector must also already looking further ahead: A new era with a minimum role for F-gases will start from 2030: The phase-out schedule will have reached a point where the use of F-gas will only be possible for maintenance (with mainly reclaimed refrigerants). Consequently, this means that the whole sector must be trained, certified and equipped for a future without F-gas from 2030.

Personnel trained on alternatives					
	Ammonia	CO2	HC (small)	HC (large)	HFOs
Total EU	12%	21%	29%	19%	40%

NORTH AMERICA

14. DEC Announce Adoption of Regulations to Reduce Harmful Climate Pollutants

New York State Department of Environmental Conservation (DEC) Interim Commissioner Sean Mahar today announced actions to support the State's ongoing efforts to reduce the refrigerant emissions contributing to climate change. DEC finalized the regulations required by the Climate Leadership and Community Protection Act (Climate Act) to reduce emissions of two potent pollutants, hydrofluorocarbons (HFCs) and sulfur hexafluoride (SF₆), that trap heat in the atmosphere.

"New York State continues to advance efforts to reduce the harmful pollution fueling climate change, with HFCs and SF₆ among the worst offenders," **Interim Commissioner Mahar said**. "The new requirements finalized today will help phase down the use of these climate pollutants over time and bolster the use of alternatives that are better for public health and our shared environment and more cost-effective for impacted businesses."

HFCs [are extremely potent greenhouse gases](#) (GHGs) often used in refrigeration and cooling that have hundreds to thousands of times higher global warming potential – a metric that measures the ability of gases to trap heat in the atmosphere – than alternative refrigerants. The amended [regulation](#) includes prohibitions, reporting, and other requirements for HFCs to help achieve required statewide greenhouse gas emission limits.

DEC adopted [regulations](#) in 2020 that limit the most powerful HFCs in certain end uses. In 2024, DEC amended these regulations to support the requirements of the Climate Act. The amendments are based in part on the U.S. Environmental Protection Agency's (EPA) regulations implementing the American Innovation and Manufacturing Act, as well as recommendations in New York State that support establishing a GWP threshold for refrigerants, as well as reducing HFC emissions from equipment leakage. The amended regulation does not require the replacement of existing equipment prior to the end of its useful life and, according to EPA, will provide substantial energy savings.

SF₆ is the most potent greenhouse gas and is used primarily in electric power transmission and distribution equipment in New York State. New equipment utilizing alternatives to SF₆ are becoming available to reduce emissions from transmission and distribution equipment. The adopted regulation includes a program to phase down the use of SF₆ in gas-insulated equipment (GIE) used by the electricity sector. The [regulation](#) includes a phaseout of the installation of new SF₆ GIE, an emissions limit for GIE owners, limitations on the use of SF₆, and reporting requirements for certain users and suppliers of SF₆ and other fluorinated greenhouse gases. The regulation will help reduce emissions generated by the electricity sector in New York State.

The regulations implement recommendations from the [New York State Climate Action Council Scoping Plan](#) to help meet the statewide emission limits of the Climate Act. In addition, as estimated [by DEC's guidance, Establishing a Value of Carbon](#), under the Climate Act, both HFCs and SF₆ are among the highest

values in terms of the cost in dollars of each additional ton of emissions. The regulations will help guide a statewide transition away from HFCs and SF6 while informing policy development and programming.

In March, [DEC announced the completion of two projects](#) that successfully demonstrate the use of natural refrigerants in grocery stores as a replacement for climate-altering greenhouse gas refrigerants. The projects, both in disadvantaged communities, are models for future commercial sustainable refrigeration transitions in retail food facilities. The projects are supported by the State Environmental Protection Fund (EPF) and were completed through a partnership with the North American Sustainable Refrigeration Council (NASRC) and the New York State Pollution Prevention Institute (NYSP2I). This partnership with NASRC will continue in the implementation of additional natural refrigeration projects in grocery stores in disadvantaged communities.

To help small businesses comply with the phaseout of harmful greenhouse gas emissions currently used as refrigerants in markets, grocery stores, and other facilities for food storage in disadvantaged communities, DEC is finalizing the development of a new grant program. [DEC issued draft eligibility and guidelines in June 2024](#) to help shape the creation of the program using funding to support climate change initiatives from the \$4.2 billion Clean Water, Clean Air and Green Jobs Environmental Bond Act of 2022 that will help businesses prepare for the transition to climate-friendly refrigerant alternatives. Grant availability and additional details will be provided in coming months.

“Hydrofluorocarbons and sulfur hexafluoride are, pound-for-pound, the worst greenhouse gases we are emitting today,” **Richie Kaur, Senior Superpollutant Reduction Advocate at NRDC (Natural Resources Defense Council)**. “With these regulations, New York State is sending clear market signals that will drive industries away from these climate super pollutants and towards alternatives that are compatible with a stable climate future. These regulations would largely phase out the use of hydrofluorocarbons and sulfur hexafluoride over the next two decades, in alignment with New York’s ambitious climate targets, making them a prime example of what decisive climate action looks like.”

“As advocates for effective refrigerant policies, we believe the adopted Part 494 regulations balance the need for regulations that allow homeowners and business owners to use their legacy equipment to the end of its useful life, while setting future standards for one-time investments in future-proofed durable systems and avoiding environmentally harmful spending,” **said Michael Helme, Lead Volunteer, New Yorkers for Cool Refrigerant Management**. “Many features of these rules are simply best practice or best technology, meaning their adoption will save money and increase our state’s business vigor and overall health. The final regulations are responsive to stakeholders while helping New York take another cool step towards our climate goals by reducing emissions of super polluting greenhouse gases.”

“This rule is essential for New York State to meet its climate targets and support the transition from powerful greenhouse gases used as refrigerants to alternatives,” **said Avipsa Mahapatra, Climate Campaign Director, Environmental Investigation Agency**. “We support the establishment of a state refrigerant management program, because what isn’t measured can’t be mitigated, and this necessary data will enable the successful cutting of emissions.”

New York State’s Climate Agenda

New York State’s climate agenda calls for an affordable and just transition to a clean energy economy that creates family-sustaining jobs, promotes economic growth through green investments, and directs a minimum of 35 percent of the benefits to disadvantaged communities. New York is advancing a suite of

efforts to achieve an emissions-free economy by 2050, including in the energy, buildings, transportation, and waste sectors.

Contact for this article: PressOffice@dec.ny.gov

Source: [Department of Environmental Conservation \(DEC\)](#), 23 December 2024

15. Removal of high GWP refrigerant from US nuclear site continues

USA: More than two-thirds of the 8,500,000 lb (3,855 tonnes) of high GWP refrigerant R114 has been removed from a former US uranium enrichment plant in Kentucky.

R114, an ozone depleting CFC, with a massive GWP of 10,000, was used to control temperatures at the gaseous diffusion plant in Paducah.

Owned by the US Department of Energy, the facility was constructed in 1952 to produce enriched uranium, initially for the nation's nuclear weapons programme and later for nuclear fuel for commercial power plants. It was the last government-owned uranium enrichment facility operating in the United States when work ceased in 2013.

During uranium enrichment operations, Paducah produced large quantities of heat when uranium hexafluoride gas was compressed. The heat was removed by pumping R114 into the system to control temperatures during the conversion process.

Since 2020, the site has shipped 5,900,000 lbs (2,676 tonnes) of the refrigerant for disposal offsite. 1,000,000 lbs (454 tonnes) of the refrigerant was removed this year.

The Four Rivers Nuclear Partnership (FRNP) led the effort to remove the environmental hazard from the site. It was the fourth consecutive year FRNP met the US Department of Energy's Office of Environmental Management priority to dispose of 1,000,000 lb (454 tonnes) of R114 per year.

Source: [Cooling Post](#), 24 December 2024

Image: UNEP OzonAction, ROWA

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Prepared by: UNEP OzonAction

Reviewed by: James S. Curlin

If you wish to submit articles or invite new subscribers, please contact:

Jo Chona, jo.chona@un.org



UNEP, OzonAction, 1, rue Miollis, Bldg. VII – 75015, Paris • France