

OzoNews

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

Volume XXI | 15 March 2021

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GLOBAL



1. Kigali Amendment latest ratification

Congratulations to the latest country which has ratified the Kigali Amendment:

Colombia, 25 February 2021

At the Twenty-Eighth Meeting of the Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer, held in Kigali from 10 to 15 October 2016, the Parties adopted, in accordance with the procedure laid down in paragraph 4 of article 9 of the 1985 Vienna Convention for the Protection of the Ozone Layer, a further amendment to the Montreal Protocol as set out in Annex I to the report of the Twenty-Eighth Meeting of the Parties (Decision XXVIII/1).

Kigali Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer, Status of Ratification 15 October 2016 to [date](#).

United Nations Treaty Collection

Image: UN Treaty Collection website



2. Controlling trade in ozone depleting substances: iPIC breaks all records in 2020 screening 40,000 tonnes

The OzonAction informal prior informed consent mechanism (iPIC) 2021 annual report provides a concise summary of the operation of iPIC queries in 2020 as well as providing a summary of data from the last decade to show the evolution of the platform and the new features of the upgraded platform. This report is intended to present iPIC's successes and encourage further usage of the platform both from new users and to inspire current members to further engage in the iPIC process.

iPIC was developed and is maintained by OzonAction to assist countries to better manage trade in ODS that are controlled under the Protocol; to facilitate and monitor ODS trade and avoid illegal or unwanted shipments. iPIC is a secure, restricted platform that currently has 127 member countries.

2020 was a very important year for iPIC. Early in that year the new updated and improved platform was launched. This has proved to be greatly appreciated by users. Additionally, and perhaps connected to this is the fact that 2020 was the most successful year for iPIC since its inception. In 2020, there were 946 queries screened through iPIC. This is a huge jump in usage. In terms of quantity of ODS and other substances this was almost 40,000 metric tonnes screened through iPIC. This is equivalent to 5,800 ODP tonnes or 72 million CO₂-equivalent tonnes of CFCs, HCFCs, carbon tetrachloride (CTC), HFCs and other substances.

UNEP OzonAction encourages all countries that have not yet adopted iPIC to register and use the tool for effective monitoring of ODS, HFCs and other controlled substances.

Countries that are registered, but do not regularly use the system are encouraged to have a look at the new updated platform and see how easy it now is to fully engage in the iPIC process.



Read the full [2021 annual iPIC report](#)

See the [flyer](#) introducing the new iPIC platform
[The UN Environment Programme, OzonAction, March 2021](#)

3. Cut Super Climate Pollutants Now! Fireside chat with the authors

Online event

18 March 2021, 17:00 EDT

We have at most ten years to radically slow global warming or face existential consequences. A focus on reducing CO₂ is necessary but not sufficient. We first need to win the 10-year sprint to cut the non-CO₂ super pollutants such as HFCs, black carbon, methane, and tropospheric ozone if we are to win the longer-term climate marathon to net zero emissions by 2050.

Alan Miller, Durwood Zaelke, and Stephen O. Andersen, climate and ozone action champions working together since the 1970s, have penned a new book, [Cut Super Climate Pollutants Now!](#), as a call to action and roadmap for the Biden Administration to succeed on climate by going beyond CO₂. Andrew Eil,

The flyer has a black background. At the top, it says 'RESETTING OUR FUTURE' in white, with a green circular icon containing a white leaf-like symbol between the words 'OUR' and 'FUTURE'. Below this, the main title 'Cut Super Climate Pollutants Now!' is written in large, bold, white serif font. Underneath the title, in a smaller white font, is the subtitle 'The Ozone Treaty's Urgent Lessons for Speeding Up Climate Action'. Below the subtitle, it says 'Virtual fireside chat with authors Alan Miller, Durwood Zaelke, and Stephen O. Andersen' in white. Further down, it says 'Moderated by Andrew Eil, Partner, Climate Finance Advisors' in white. At the bottom, the date and time 'Thursday, March 18, 2021 5:00PM - 6:00PM EDT' are written in a large, bold, white sans-serif font.

Partner at Climate Finance Advisors, will interview the authors, explore what the book's findings mean for climate policy, and probe how the financial sector can play its part.

Register to join >>> [here](#)



4. World Refrigeration Day announces theme of 2021 campaign

“Cooling Champions: Cool Careers for a Better World”

World Refrigeration Day celebrates the people and technologies responsible for creating and maintaining the world we live in, a world dependent upon temperature-controlled environments. Centered around June 26, the event is supported globally by industry, professional groups, scientific and engineering associations, as well as by governments and

individuals.

The WRD 21 campaign will focus on careers in the refrigeration, air-conditioning and heat pumps industry and is titled **“Cooling Champions: Cool Careers for a Better World”**. The goal of the campaign is to inspire students and young professionals – for both men and women – in all countries, encouraging them to meet the challenges faced in their communities.

Following successful campaigns in the last two years, the WRD Secretariat will continue partnering with UNEP OzonAction in the WRD 21 campaign to attract a new generation of Cooling Champions. The campaign includes other partners representing the industry and professionals around the world. The full list of partners and the campaign program will be announced in the coming weeks.

Refrigeration is at the very heart of modern life. More than 15 million people are employed worldwide in the refrigeration sector. The total number of refrigeration, air-conditioning and heat-pump systems in operation worldwide is around 5 billion. Those systems provide the conditions we require for health, comfort, worker productivity, manufacturing, and essential environments for food, pharmaceuticals, and digital data. Dedicated professionals design, build, maintain, and regulate them as well as educate a new generation of practitioners.

Opportunities within the industry abound for young people with a wide range of career aspirations. Advanced cooling technologies need to be implemented in order to expand life required environmental conditions while meeting sustainability requirements of international climate and ozone protection accords. A new generation of cooling champions – engineers, technicians, researchers, educators, policy experts and executives – are needed to create controlled environments modern life requires. The benefits of reaching into a wide diversity of communities for promising talent will be a high campaign priority.

To support the Cooling Champions Campaign contact: info@worldrefrigerationday.org

World Refrigeration Day 26th June around the World, 5 March 2021

5. Not passing on passive cooling: How philanthropy can help accelerate passive cooling solutions and their climate benefits

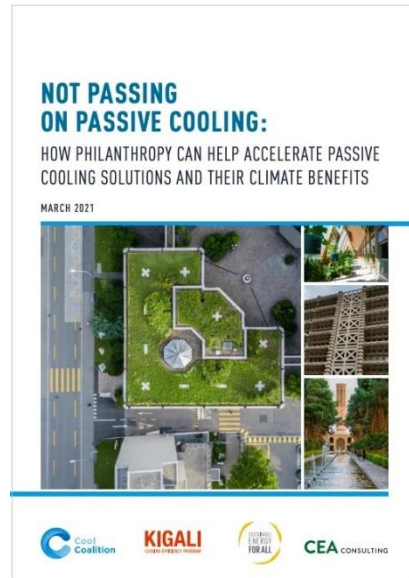
The WHO estimates that climate change will kill 250,000 people each year by 2050 due to increasing temperatures — this can be mitigated with focused support on passive cooling from the philanthropic community. 82 With over one billion people facing risk from a lack of access to cooling, and with AC electric fans already accounting for 20% of the electricity use in buildings, passive cooling can offer a simple and affordable solution to the access and emissions conundrum posed by cooling.

Philanthropy can play a pivotal role in elevating passive cooling into the mainstream of climate-friendly cooling solutions. By supporting passive cooling building codes, promoting access, building awareness, and building financial vehicles, philanthropy can collaborate with governments, development agencies, and the private sector to lock in passive cooling wins.

Wins that will protect the environment from the detrimental effects of mechanical cooling, while promoting health, comfort, and long-term economic benefits.

Authors: Cool Coalition, KCEP, SEforALL, CEA Consulting

Cool Coalition, March 2021



6. Choose to challenge on 2021 International Women’s Day

To mark International Women’s Day on 8 March 2021, we asked female delegates working for the Montreal Protocol why it is so important to have more women in positions of influence?

Reflecting back on a year of unprecedented challenges, also highlighted in this year’s theme for Women’s Day - #ChooseToChallenge - we were curious to know what challenges they had faced in their careers and how they responded to those challenges.

What follows are the inspiring messages of trailblazer women underscoring the vital role women play in protecting the ozone layer.

Haijun Chen, Director, Department of International Cooperation, Ministry of Ecology and Environment, China

With their innate traits of inclusivity, thoughtfulness, patience and sense of responsibility, women make unique contributions to effective decision making and communication. Many positions related to the protection of the ozone layer in China, including those for the implementation of the Montreal Protocol, particularly the National Ozone Unit (NOU) and Programme Management Office (PMO), are held by women who have demonstrated great dedication to project implementation, compliance management, policy development and negotiations.



I have seen many examples of women playing critical roles in project implementation. A case in point is that women project officers from the PMO and the United Nations Development Programme (UNDP) as the implementing agency helping enterprises replace hydrochlorofluorocarbons (HCFCs) with hydrocarbon technology to reduce both labour intensity and chemical concentration in workshops when they noticed the potential damage workers (mostly female) might suffer in the solvent sector.

While gender balance has been paid much attention to in the implementation of the Montreal Protocol, it is still of great necessity to further increase the proportion of women engaged and have more women in positions of influence. Women's leadership in decision-making should be fully developed and I believe it would play a more important role in the future.

Stereotypes about gender might be a big challenge for professional women in their career development. Some traditional thinking, such as women being born weak, emotional and indecisive, is still deeply rooted in some people's minds. At the same time, women are expected and inclined to take on more responsibilities in the family especially in child-raising. This will result in the difficulty for women to give the same weight to their careers and families. For me, one of the ways to overcome these challenges is to ensure I am efficient, persistent, firm and a good team player. Thanks to my family's understanding and all the valuable experience shared by my amazing colleagues, I could focus on what is important "right at this moment".

It is very important to provide more equitable opportunities for women to play to their strengths and full abilities. For example, in my country, we have taken actions in facilitating women's participation in ozone layer protection. In designing and implementing project activities, we focus on the proportion of women involved and the improvement of women's competitiveness by organizing skills training and capacity-building sessions. Gender mainstreaming is gradually penetrating the different fields and I'm confident that more concrete actions will be taken from all society to further this cause.



Laura Estela Berón, Ozone Programme Office Coordinator, Secretariat of Climate Change, Sustainable Development and Technological Innovation, of the Ministry of Environment and Sustainable Development, Argentina

When I started working for the Montreal Protocol on Substances that Deplete the Ozone Layer, I had already experienced several international negotiations in other multilateral environmental agreements. However, after 19 years working for the Montreal Protocol, I can say that these have been the most challenging years of my professional career.

Working for the Montreal Protocol has been a unique opportunity for all of us who have had the chance to work in this global arena for a treaty that is widely considered the most successful multilateral environmental agreement signed to date. As a member, I can confirm that this success was possible thanks to the so-called “Ozone Family”, in which female members are an important part. The Montreal Protocol gives women the opportunity to participate and meaningfully contribute in decision-making processes at all levels and take on leadership roles. Women’s role and contribution to negotiations and policy-making at national and international level has been very important in the work of the Montreal Protocol. For instance, that is very well reflected in our region since a huge percentage of National Ozone Unit leaders are women (e.g. Argentina, Brazil, Colombia, Chile, and Paraguay).

Negotiations are not only difficult because they may have a big impact on a country’s economy, but also on the welfare of the society and future generations. That is why every negotiation has been very challenging. Being the only environmental Protocol that is globally ratified means that we have to accommodate the needs/concerns of every single country in the world. Believe me, that has been a huge task!! Making policies and guidelines suitable to address situations from the biggest country to the tiniest island in the world, obliged us (the parties) to reach difficult consensus that could fit them all. Regardless to say, that language has also been a barrier for face-to-face negotiations for people of my region.

Women play a different role in society. We are accustomed to deal with much more things simultaneously than men. As a result, we are more adaptable and have a broader view of problems and possible solutions. We are more creative and naturally tend to be more open minded. We can also anticipate problems more easily than men, and last, but not least, we are good administrators! This further explains why both women and men are indispensable in representative bodies. Women in charge of a National Ozone Unit had even further challenges in the field implementation back home. The Montreal Protocol requires compliance and complying with control measures is always a huge new task which awaits us at home. Here is where multitasking becomes very important.

Working for the Montreal Protocol obliges us to work very closely with different sectors: industrial, agricultural, and medical, among others. Negotiating with all production sectors, trying to address their concerns and needs, and knowing that all conversions will be very hard for them, is very challenging too. It also obliges us to keep ourselves updated with technological innovations. And last, but not least, articulating to numerous stakeholders such as various Ministries, Customs and importers, security forces, consultants, and refrigeration professionals and technicians, etc.

My last thought on our day is that any woman can succeed in her objectives and goals as well as any man, but it requires hard work dedication, education, training and knowledge to get the experience and skills needed, and these are the basis of that success.

Laura Juliana Arciniegas Rojas, Head of Environmental Affairs Division, Ministry of Foreign Affairs, Colombia



There is an array of remarkable female leaders around the world that have exemplified with no doubt the sense of duty, commitment, devotion and compassion that a woman can bring to the execution of any job, big or small. What is a position of influence? One where one can drive change for the better of society as a whole. It is often thought that female influence and leadership come from women in positions of power where they are the ultimate decision makers. Whilst that is unquestionably true, it is also true that change is driven from the bottom up. As such, the ultimate position of influence of women should have a broader, wider recognition and, above all respect, for the role women play in society. Not only as leaders and professionals, but also as mothers, teachers, care givers; multitasking more so than men, providing care and raising children. In a more challenging world, where children are sometimes taught to see hindrance in one gender or another, women perpetuate an ever-growing sense of possibility driven not by gender, but rather by hard work, decency and compassion.

I have probably been afforded more opportunities than many others - both men and women - in terms of an advantageous situation in terms of education, life experience or economic well-being. Nevertheless, having had those opportunities does not come without its own set of challenges. Perhaps the greatest challenge of all is making your contribution, your work, your actions and your life worthy, not of recognition, but rather valuable towards something bigger than yourself.

I have been entrusted to lead, in situations where others, perhaps more experienced or seasoned people than me, pose great pressure towards the many issues the teams I have had to lead believe we have to fight for, not just for my country but for the sake of the sustainability of the global context. The challenge there has been not letting these teams down and empowering such leadership on that trust that was bestowed upon me, regardless of players that are probably more powerful and in a more advantageous position than mine. In addition, feeling sometimes small compared to the task at hand, despite the many advantages I perhaps have been afforded as an individual. I have overcome such a feeling knowing that what I do has to not only live up to those opportunities that I have been afforded, but also given me a deep sense of understanding and humbleness, that I as much as everyone, matter - that I can make a difference, and that I, in a position of leadership, have not only the responsibility but the honour to carry forward the hard work that others have taken on. Not for their benefit but rather to deliver on a bigger cause that ultimately enables a better life for all of us here and those that are to follow.



Margaret Aanyu, Environment Assessment Manager and Ozone-Desk Officer, National Environment Management Authority, Uganda

I feel it is important to have more women in positions of influence because they add value to decisions which have to be made regarding any pertinent issues. Hence, the big decisions being made in different fora in present times and those which will be made in the future, need to be taken from a balanced perspective, with involvement of women placed in strategic positions of leadership and influence. Global events (be it social, cultural, economic) are evolving at a rate which demands multi-faceted approaches to managing trends and challenges that those events

present to human beings and the planet in general. It is well known that women have a big role to play in policy-making and decision-making processes across all sectors because they possess unique attributes which are sometimes taken for granted. Some of the notable attributes that women possess that are instrumental/useful when women are placed in positions of influence, include: their ability to multi-task, empathize and seek finer detail and compromise in challenging situations. Tapping into these attributes can be beneficial to different policy-making and decision-making process that affect human life and planet earth, among others.

With regard to my career I have had and still have opportunity to gain from trainings and acquisition of different skills and knowledge. Equipped with such, I have tended to choose to take up the challenges I have faced and navigate sometimes into the unknown, such as the phase in my life when I began handling matters concerning the Montreal Protocol, and taking additional responsibilities. Sometimes along the way I did not get the cooperation I desired when working with other people who may not perceive matters the same way I do. As a result, sometimes there would be unwanted delays in realising set outputs in specific timeframes. I have also realised over time that one may not apply all the knowledge and skills gained because of not being placed where it is required or can be applied. However, I still look forward to the future though to apply the knowledge and skills I have not yet been able to utilise. Overall, I am grateful for all the support systems that have equipped me to handle challenges I have faced over the years.

Tumau Herownna Neru, Principal Ozone Officer, Ozone Section - Meteorology Division, Ministry of Natural Resources and Environment, Samoa



Though we come from different races, ethnicity, nationality, religion etc., WE, Women, can all relate to one common fact: we are the bearers of life and thus come with natural compassion, and a loving and caring instinct. Quite often I have seen this maternal nature reflected in the determination, commitment, and dedication of women in the Montreal Protocol family working towards initiatives to preserve the ozone layer. Women's intuitive protective instinct and passion for a better environment gives them a certain drive to provide input with an encompassing approach to not only consider the immediate impacts of environmental challenges but also their long-term impacts on future generations.

Working as an advocate of the Montreal Protocol to protect the ozone layer, I have witnessed with admiration women as great networkers and communicators with patience and perseverance to listen attentively to discussions before making interventions. Having more women in leadership and influential positions could provide the much-needed change for the betterment of humankind.

The Montreal Protocol work is quite diverse, ranging from policy-making decisions to ground level technical implementation of activities. One of the challenges I encountered in my first years as Ozone Officer was working with Customs and the Refrigeration and air-conditioning industry which are both male dominant fields. Throughout the years, awareness and capacity building activities enabled good collaboration with these entities and even more so build my confidence as a woman to promote ozone protection. With endurance and determination nothing is impossible!

Finally, for all the young women out there looking for an opportunity to contribute to a better world, the Montreal Protocol would be one of the most rewarding careers you could ever have.

UNEP, Ozone Secretariat, March 2021

Images Ozone Secretariat website

See also >>>

- The UN Environment Programme (UNEP) **OzonAction** invitation to **celebrate International Women's Day on 8 March 2020**. The 2021 theme is: "**Women in leadership: Achieving an equal future in a COVID-19 world**". This celebrates the tremendous efforts by women and girls around the world in shaping a more equal future and recovery from the COVID-19 pandemic... [Read more](#)

- **Women in the Refrigeration and Air-Conditioning Industry: Personal Experiences and Achievements**, a publication by The UN Environment Programme (UNEP) **OzonAction**

AFRICA

7. UNDP and Centro Studi Galileo to focus on efficiency practices and NatRef implementation

Italian HVAC&R trainer Centro Studi Galileo (CSG) and the United Nations Development Programme (UNDP) have come together to support training in the Nigerian refrigeration and air conditioning (RAC) sector.



The alliance aims to build the country's workforce capacity by increasing knowledge of RAC energy efficiency practices.

The joint effort officially began in February with CSG and UNDP working with Nigeria's RAC training syllabus and multiple sets of training sessions for trainers and technicians.

While the main goal of the project is to teach efficiency best practices, it will also inform technicians on environmental issues like global warming and ozone depletion. Additionally, the project will provide information on the implementation of natural refrigerants.

The Nigerian sector will be under the direct supervision of the UNDP nature Climate and Energy team as well as the Country Office, and in coordination with the global UNDP Kigali Cooling Efficiency Program (K-CEP) Programme, and the National Ozone Office of the Federal Ministry of Environment, Nigeria.

CSG is an Italian training provider for the EU-funded project REAL Alternatives 4 LIFE. The project encourages wider adoption of alternatives to high-GWP HFC refrigerants. CSG will impart knowledge on how to use these new refrigerants and also be energy efficient. The training provider worked with Somalian refrigeration technicians last year, offering theoretical and practical lessons on CO₂.

r744, 4 March 2021, By Ntsako Khosa

Image: r744 website



8. Tunisia's House of Representatives to discuss the terms of accession to the protection of the ozone layer agreement [Kigali Amendment]

يناقش النواب بنود مشروعه اليوم: تفاصيل انضمام تونس الى اتفاق حماية طبقة الأوزون

شرح مجلس نواب الشعب ، صباح الثلاثاء، في مناقشة مشروع قانون اساسي يتعلق بانضمام تونس الى تعديل بروتوكول منتريال بشأن المواد المستنفذة لطبقة الاوزون المعتمد بكيغالي في 15 اكتوبر 2016 .

ويهدف مشروع القانون الاساسي الذي يناقش بحضور وزير التجهيز والإسكان والتهيئة الترابية ووزير الشؤون المحلية والبيئة بالنيابة، كمال الدوخ الى تقليص انبعاث ثاني اوكسيد الكربون علما وان الاستهلاك الوطني من المواد الهيدروفلوروكربونية، المصرة بطبقة الاوزون، ارتفع 3 مرات خلال السنوات العشر الاخيرة.

اتفاقية فيينا

وانضمت تونس الى اتفاقية فيينا الدولية المتعلقة بحماية طبقة الاوزون والى بروتوكول منتريال بشأن المواد المستنفذة لطبقة الاوزون وجميع تعديلاته الاربعة قبل كيغالي 2016 وهي تعديل لندن سنة 1990 وكوبونهاغن 1992 و تعديل منتريال 1997 وتعديل بيكين سنة 1999 .

وسيمكن تعديل كيغالي من تجنب انبعاث ثاني اوكسيد الكربون بكمية تقارب 8ر8 جيغا طن في السنة على المستوى العالمي بداية من سنة 2050 مما يسهم في التخفيض من درجة حرارة الارض بنسبة 0ر5 بالمائة مع نهاية القرن 21 وتندرج المواد الهيدروفلوروكربونية ضمن مجموعة الغازات الدفيئة وتتميز بشدة قدرتها على الاحتباس الحراري وقد ادرجت 18 مادة ضمن هذه المجموعة تحت المراقبة في هذا التعديل.

تساهم في حماية طبقة الاوزون

وسيتح تطبيق هذا القانون اقرار جداول زمنية للتخفيض التدريجي من انتاج واستهلاك المواد الهيدروفلوروكربونية الخاضعة للمراقبة تنص على تخفيض الاستهلاك بنسبة 80 بالمائة بداية من 1 جانفي 2045 . وسيدخل التعديل حيز التنفيذ شرط المصادقة عليه من طرف 20 دولة على الاقل تكون اطراف بروتوكول منتريال بشأن المواد المستنفذة لطبقة الاوزون. ويندرج التعديل في اطار تعزيز المجموعة الدولية في مجال حماية طبقة الاوزون وحماية المناخ من المواد المتسببة في الاحتباس الحراري وخاصة منها المواد الهيدروفلوروكربونية .

يشار الى ان تونس تساهم في حماية طبقة الاوزون وتلقى مجهوداتها استحسان برنامج الامم المتحدة للبيئة وان انضمامها الى بروتوكول منتريال سيمنحها من الحصول على امتيازات وهبات من الصندوق متعدد الاطراف لبروتوكول منتريال .

Jawhara, 9 March 2021

Image: Jawhara website

ASIA AND THE PACIFIC

9. South Asia and Southeast Asia Networks and Developed Countries Share Experiences about Integration of HFC Phase-down and HCFC Phase-out Processes



Bangkok, Thailand, 10 March 2021 – Under the Montreal Protocol on Substances that Deplete the Ozone Layer, all developing countries in Asia-Pacific are effectively phasing out their consumption of hydrochlorofluorocarbons (HCFCs) according to their international commitments. In many cases, however, this success has resulted in an inevitable increase in the use of hydrofluorocarbons (HFCs), which are gases used as alternatives to HCFCs in applications ranging from air conditioners and fridges to plastic foam products. Those countries (which operate under Article 5 of the treaty) need to curb the growth of HFCs to

ensure compliance with obligations under the Protocol's Kigali Amendment, which will be concurrent with their HCFC phase-out obligations for many years. Although some Article 5 countries have integrated HFC issues into their on-going HCFC phase-out activities, all of them need to identify strategies to enhance on-going activities and explore other opportunities for further integration.

The countries of South Asia (SA) and Southeast Asian (SEA) Regional Network of Ozone Officers participated in a virtual meeting convened by the UN Environment Programme (UNEP), Compliance Assistance Programme (CAP), Asia and the Pacific Office on 23 February 2021 with a total of 86 participants from 23 countries (46 women and 40 men). The meeting offered opportunities for SA and SEA network countries to learn from the experience of developed countries – Australia, the European Union, Japan and the United States of America – and brainstormed on how on-going activities and potential strategies can integrate and extend to the upcoming HFC phase-down, taking into consideration the analysis on implications of parallel or integrated implementation of HCFC phase-out and HFC phase-down activities presented by the Multilateral Fund Secretariat. Break-out groups were held following the plenary session to facilitate discussions on pre-defined topics related to strategic perspective and transformative approaches for the integration of the HFC issue into HCFC phase-out effectively and sustainably while taking into account the current challenges faced by countries.

The meeting enabled participants to better understand that the integration of HCFC phase-out and HFC phase-down implementation could be beneficial for their countries. While countries have already initiated and implemented some activities to the extent possible, some challenges need to be addressed due to additional workloads associated with controlling multiple HFC substances, safety concerns and involvement with new stakeholders attributed to the HFC phase-down. There could be other opportunities for further integration of HFC phase-down following consultation and engagement of other national stakeholders.

Ms. Zuharni of Indonesia's National Ozone Unit said that “To benefit the HFC control, Indonesia has conducted some activities with consideration of both HCFCs and HFCs. For example, we have integrated safety aspects of flammable/toxic/high pressure refrigerants in the upper level of competency standards for refrigeration and air-conditioning (RAC) servicing technicians as part of the HCFC Phase-out Management Plan activities. Today, we have learned initiatives from presentations and discussions in the meeting such as control of leakage in large RAC equipment through record keeping and the report of the amount of refrigerant used and leaked. Each developed country has common but a different approach to control the HFCs, which can be useful for developing countries”

Mr. Jim Curlin, Acting Head of UNEP OzonAction, said “We are entering a new era of parallel HCFC phaseout and HFC phase-down obligations under the Montreal Protocol. The experience of developed countries with the management of the HFC phase-down, including lessons learnt about the development and coordination of national strategies and policies to control HFCs, is extremely useful for developing countries as they set out on the same path. UNEP will continue to offer its Regional Networks as a platform for sharing and discussing this type of critical information to help developing countries prepare for their future Kigali Amendment obligations.”

This thematic meeting is the first of a series of thematic workshops that UNEP CAP plans to conduct in the region following a survey of Network members conducted in November 2020 and in light of its approved 2021 Work Plan.

Contact: [Shaofeng Hu](#), Senior Montreal Protocol Regional Coordinator, UNEP, Compliance Assistance Programme (CAP), Asia and Pacific Office

NORTH AMERICA

10. The transition to low-GWP (flammable) Refrigerants in the Unitary Market



3/24/21 2:00 pm to 3/24/22 12:00 pm EST

Recent federal and state hydrofluorocarbon (HFC) refrigerant legislation requires HVAC industry change to meet the growing call for environmental protection. This transition will have significant direct and indirect impacts on the Unitary sector (residential/commercial splits, packaged/rooftop units).

Previous Unitary sector refrigerant transitions, like the move from R-22 to R-410A, were disruptive in execution but clear-cut from a regulatory standpoint.

The next transition, likely to occur within a few years, will not be as straightforward. Multiple, mildly flammable, low-GWP refrigerants will be available as soon as building codes allow. This webinar shares the drivers behind the next transition, leading low-GWP refrigerant candidates, timing and possible consequences.

What: FREE Webinar

Where: Online

When: Live Wednesday, March 24, 2021 at 2PM EST

Can't attend live? Register to view the webinar on-demand!

Contact: [Ian](#)

ACHR News, March 2021

Image: ACHR website

EUROPE & CENTRAL ASIA

11. OzonAction technical brief on refrigerant cylinder labelling 2021: New publication

The UN Environment Programme (UNEP), OzonAction released the technical brief on refrigerant cylinder labelling (*English, Russian*). It is recommended to implement mandatory labelling of refrigerant cylinders prior to the freeze of the HFC consumption at the baseline level. For most developing countries, the HFC freeze will start on 1 January 2024.



This technical brief, produced as part of the activities of the Montreal Protocol Network for Europe and Central Asia (ECA network), encourages Governments and National Ozone Officers to establish or amend national legislation requiring mandatory labelling of refrigerant cylinders and explains what information should be included in refrigerant cylinder labelling.

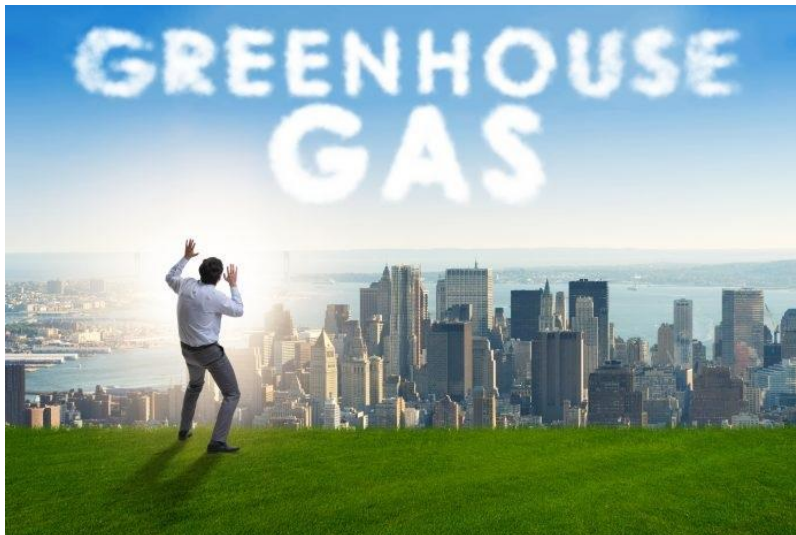
Refrigerants are contained in different types of cylinders such as small cans or ISO containers, transport or recovery cylinders, refillable or non-refillable cylinders etc. Labelling of such cylinders is needed to provide information about the cylinders and their contents, to allow easy identification of refrigerants and to ensure their safe and proper handling. Such information is relevant for importers, wholesalers, distributors, service companies / end-users and enforcement authorities throughout the life cycle of the cylinders and the refrigerants, e.g. during production, transport, trade, storage, use, recovery / recycling / reclaim and disposal. Labelling of refrigerant cylinders also facilitates the monitoring of trade, maintaining trade statistics and reporting the consumption of controlled substances as required under Article 7 of the Montreal Protocol.

Countries allowing the import or placing on the market of refrigerant cylinders without labelling, with incomplete or with misleading labelling might not be able to ensure the health and safety of users. They might also face challenges in monitoring and controlling trade in controlled substances as required by the Montreal Protocol. Labelling is becoming even more important with the increasing number of new refrigerants and blends, which led to the discontinuation of the AHRI system of cylinder colours. As a result of this, labelling has become the principal identification method for refrigerant cylinders and their contents.

Read/Download [English](#) | [Russian](#)
[The UN Environment Programme \(UNEP\), OzonAction, March 2021](#)

Image © Polish Customs Administration

12. EU climate policy on fluorinated greenhouse gases



General Director for Climate Action at the European Commission, Mauro Petriccione explains how the EU climate policy on fluorinated greenhouse gases is working and what its future holds

Under the European Green Deal, the European Union is committed to reducing greenhouse gas emissions by at least 55% by 2030 compared to 1990, and reaching net climate neutrality by 2050. Emissions from fluorinated gases (F-gases) are an important part of this effort, as they have a warming effect up to 22,800 times greater than the same amount of CO₂. An ambitious plan to cut F-gas emissions is, therefore, key to achieving the EU's climate objectives in the years ahead.

A stitch in time saves nine

F-gases currently account for around 2.5% of all EU greenhouse gas emissions. Reaching net climate neutrality by 2050 requires us to all but eliminate F-gas emissions by then. But action is required now. The F-gases in question are currently used for many applications, such as cooling equipment, heat pumps and electrical switchgear. The gases can be emitted during the useful lifetime of the products and once they enter the waste stream. Moreover, these kind of appliances tend to have long lifetimes, up to 50 years in some cases, and so could still be around in 2050 if sold new today. The best way forward, therefore, is to stop using F-gases now to avoid further harm down the road. In parallel, ambitious EU energy efficiency standards seek to minimise the energy use of these appliances.

A successful EU F-gas policy

The EU adopted its second F-gas Regulation in 2014. Alongside EU rules covering refrigerants in air-conditioning in cars, the Regulation is expected to reduce EU F-gas emissions by two thirds by 2030. Without these measures, F-gas emissions in the EU would otherwise have doubled.

The most important measure in the Regulation is the quota system for hydrofluorocarbons (HFCs). The so-called "HFC phase-down" is gradually reducing the amount of new hydrofluorocarbons available on the EU market. The cap will achieve a 79% cut in the supply of new HFCs by 2030 compared to 2015. Importers and producers of hydrofluorocarbons are not allowed to exceed their quotas and need a licence to import the gases.

Reduced supply of HFCs has seen EU prices rise above those on the world market. This increase has been a significant driver for innovation and the replacement of the highly warming HFCs. For many types of refrigeration equipment, the use of HFC alternatives has become the new normal in the EU, and Europe holds a leading position in many climate-friendly technologies.

For processes and appliances that continue to need F-gases, rigorous emission prevention measures are in place. For instance, equipment must be checked for leaks and serviced by certified technicians.

As of 2015, EU F-gas emissions began to decline after a decade of year-on-year increases. In addition, the adoption of the EU F-gas Regulation played a key role in achieving the 2016 global agreement to phase down HFCs under the Montreal Protocol on substances that deplete the ozone layer. Researchers estimate that this global phase-down alone may prevent a temperature rise of up to 0.4°C by the end of the century. So far, so good.

Leading by success

To capitalise on the innovation and technical developments brought about since the 2014 Regulation, the European Commission is planning to propose changes to the F- gas rules by the end of 2021. These changes will aim to further increase ambition, and cut down the use of these gases even more, in line with the EU's climate objectives. They also aim to ensure long-term compliance with the HFC obligations under the Montreal Protocol, and to put in place more effective enforcement of the rules in the 27 EU Member States. Based on the Commission's proposal, the European Parliament and the EU Member States in the Council will then negotiate the final EU F-gas rules.

A strengthened EU F-gas policy will make climate-friendly solutions even more competitive in the EU and provide manufacturers with the market opportunity they need to invest. Europe getting greener solutions onto the market will make it easier for other countries to follow suit and will facilitate the fulfilment of their own commitments under the Montreal Protocol and the Paris Agreement on Climate Change. The success of the EU's F-gas policy is clear, and it is set to continue driving progress in Europe and around the world.

[Open Access Government, 4 March 2021](#)

Image © Elnur

13. Illegal refrigerant market hit 31MtCO₂e in 2019

As much as 31MtCO₂e of HFC refrigerant could have entered through EU borders illegally in 2019, according to a new investigation by refrigerant producers.

The latest figures from Oxera Consulting on behalf of the EFCTC highlights the extent to which uneven enforcement by EU member states has created an opportunity for criminals to bypass the quota system and import HFCs into the EU illegally.



There is also added concern that this year's reduction of the quota from 63% to 45% of the 2015 baseline could create new opportunities for smugglers to fill the gap.

"In a worst-case scenario where demand for HFCs were to stay around the same level after the 2021 phase-down and enforcement were not to improve, this large black market could double in size," says the EFCTC.

The figures are based on data from a range of sources – the official EU Eurostat database, the UN Comtrade trade database, data from the Turkish Statistical Institute and Chinese export data.

With the re-evaluation of the 2018 calculation "due to a data integrity issue" the EFCTC now says that a total of up to 73MtCO₂e could have been smuggled into the EU between 2018 and 2019.

Chinese data discrepancy

The investigators had previously identified a discrepancy between the export volumes reported by China and the import volumes reported by the EU. This discrepancy decreased slightly from 2018 to 2019.

"However, exports from China to EU neighbouring countries increased by 17% from 2018 to 2019. Even with market growth taken into account, a potential 23MtCO₂eq of excess imports of HFCs could be destined for illegal trafficking to the EU market," said Dave Smith, business director at Koura Global, an EFCTC member company.

Ville Itälä, director-general of the European Commission's fraud office, OLAF, said that the black market was "still a huge challenge", with 2020 seeing the largest seizures of illegal HFCs ever.

"At peak times, we alerted member states of illegal shipments on a daily basis," said Ville Itälä. "When a shipment is stopped somewhere, we often observe a decrease in illegal activity in that member state, with smugglers using different routes to get into the EU."

CoolingPost, 25 February 2021

See also >>> [Romania seizes 9 tonnes of refrigerant from Turkey](#), article in CoolingPost, 12 March 2021

14. Refrigeration and Energy Technology Research Platform in Vogtland Funded with 15 Million Euros from Federal Ministry of Education and Research (Germany)

Chemnitz University of Technology, Institute of Air Handling and Refrigeration Dresden, and Fraunhofer Institute for Solar Energy Systems ISE Freiburg are

developing an innovative platform for research, development, and education in the field of refrigeration and air conditioning technology in Reichenbach in the Vogtland region of Germany.



The German Federal Ministry of Education and Research (BMBF) is funding a Research Platform for Refrigeration and Energy Technology. This platform is being established by Chemnitz University of Technology, the Institute of Air Handling and Refrigeration Dresden, and the Fraunhofer Institute for Solar Energy Systems ISE Freiburg in Reichenbach im Vogtland with a total of 15 million euros.

On March 11, 2021, Thomas Rachel, Parliamentary State Secretary to the Federal Minister of Education and Research, explains: "I am pleased about today's starting for the establishment of the Refrigeration and Energy Technology Research Platform. In recent years, the Free State of Saxony and the Vogtland region have developed into a knowledge region for refrigeration technology. World-class companies and high-performance educational institutions have their home here. We are now expanding this portfolio to include a strong research innovation platform that combines the area's strengths of science, education, and business. Our goal is to set international standards for resource-saving refrigeration and energy technology through this promising project. We are addressing a megatopic of the energy transition: Around 50 percent of Germany's final energy consumption is needed to supply heating and cooling. To achieve our climate protection goals, we need solutions for an energy-efficient and climate-friendly cold supply that is affordable and socially acceptable at the same time. In the long term, the research platform has what it takes to become a national and international pacesetter in this regard." [...]

Technische Universität Chemnitz, 12 March 2021

Image: BMBF

15. Montreal Protocol: Island steps up position on ozone depleting substances

Increased measures to protect the Earth's atmosphere from ozone depleting substances, under an international treaty, have been extended to the Isle of Man. [a self-governing British Crown dependency].

Having ratified the original Montreal Protocol the latest amendments bring the Island in line with the UK with immediate effect after their Government accepted the Island's request.

The treaty limits the production of an array of Ozone Depleting Substances (ODS) and compounds known as Fluorinated Greenhouse Gases (F-Gases) that contribute significantly to global warming and found in items such as fridges and fire extinguishers.

The five amendments were given effect in Manx law in 2020 so there will be no additional impact on people and businesses who produce, recycle, use, destroy or trade in them.



As a fully signed up member to the Montreal Protocol, the Island will be able to ship items that contain the ozone depleting substances to the UK for appropriate disposal. This has been illegal since July 2017.

The situation had led to a stockpiling of some products, including hundreds of fridges that could not be disposed of as there is currently no facility to do it on the Island.

Shipments will require an appropriate license that can be arranged by [emailing](#) and additional authorisation is needed for disposal.

In line with the UK, a list of regulated chemicals, phase out dates and training requirements will also be updated.

Geoffrey Boot MHK, Minister for Environment, Food and Agriculture, said: 'The ozone layer protects life on earth and the Montreal Protocol has brought the international community together in a bid protect it.

'The updated regulations will enable us to play our part in global efforts to preserve our atmosphere from harmful ozone depleting gasses – a leading cause of climate change.'

In 1987, the Montreal Protocol achieved almost universal adoption by countries across the world in recognition that ozone depletion is a global problem. It has been strengthened a number of times since including the latest Kigali amendment signed by 170 countries in 2016.

It aims for the phase-down of hydrofluorocarbons (HFCs) by cutting their production and consumption.

[The Isle of Man Government website, 9 March 2021](#)

Image: Isle of Man Government website

16. Annual Natural Refrigerants Virtual Trade Show

Registration is now open for the **Natural Refrigerants Virtual Trade Show 2021** taking place LIVE on 30-31 March 2021.

Register below for *FREE* and join on 30 March the global event LIVE for 24hrs, to include all time zones. **The platform will open at 10am CET on 30 March and close at 10am CET on 31 March.**



Attend and click-through the exhibitor halls featuring cutting-edge technology providers' booths, tune into live webinars, panel discussions, network with other industry stakeholders in the virtual lounge and vote for the Innovation of the Year Award.

[Learn more >>>](#) *Image: Atmo website*

FEATURED



OZONE SECRETARIAT

Reset Earth! One Ozone. One Planet. One Chance.

The UNEP Ozone Secretariat hopes to raise awareness among teens on the importance of protecting the ozone layer and safeguarding the environment through animation and a games app. *(Available free of charge for [iOS](#) and [Android](#))*



You've watched the [film](#), now play the [game](#), and see what you can do to [Reset Earth!](#)

Overview for the meetings of the ozone treaties in 2021

- **11th ORM**, Geneva, Switzerland | 14 - 16 April 2021
- **66th IMPCOM**, Bangkok, Thailand | 12 July 2021
- **43rd OEWG**, Bangkok, Thailand | 12 - 16 July 2021
- **67th IMPCOM**, Nairobi, Kenya (tentative) | 23 October 2021
- **12th COP – 32nd MOP Bureau**, Nairobi, Kenya (tentative) | 24 October 2021
- **12th COP (part II) – 33rd MOP**, Nairobi, Kenya (tentative) | 25 - 29 October 2021

Click [here](#) for past and upcoming Montreal Protocol Meetings Dates and Venue.

The UN Environment Assessment Panels

The Assessment Panels have been vital components of ozone protection since the Montreal Protocol was first established. They support parties with scientific, technological and financial information in order to reach decisions about ozone layer protection and they play a critical role in ensuring the Protocol achieves its mandate. The Assessment Panels

were first agreed in 1988 to assess various direct and indirect impacts on the ozone layer. The original three panels are:

- [The Technology and Economic Assessment Panel](#)
- [The Scientific Assessment Panel](#)
- [The Environmental Effects Assessment Panel](#)

In the past there were 4 main panels. The Panels for Technology and Economic Assessments were merged in 1990 into one Panel, now called the Technology and Economic Assessment Panel.

Why are the three current panels important to ozone layer protection? Each carries out assessment in its respective field. Every four years, the key findings of all panels are consolidated in a synthesis report. [Learn more >>>](#)



**THE MULTILATERAL FUND
FOR THE IMPLEMENTATION OF THE
MONTREAL PROTOCOL**

- Click [here](#) for the Executive Committee upcoming and past Meetings.
- [Executive Committee Primer – 2020](#) - An introduction to the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol.



OzonAction

OzonAction Compliance Assistance Programme produces and outreaches a wide variety of information and capacity building materials and tools that support the

implementation of the Montreal Protocol programs and assist Article-5 countries in meeting the compliance targets. These include publications, technology briefs and factsheets, mobile applications, videos, e-Learning, modelling and database programs and special educational or certification programs.

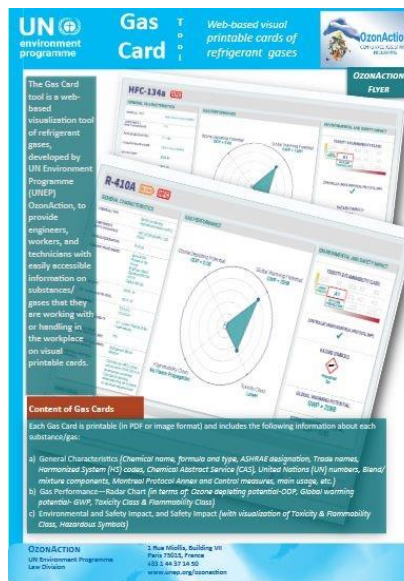
The section below features several of our most recent products.
Visit [OzonAction website](#) for more information, discover the entire range of products.

Gas Card Tool: Web-based Visual Printable Cards of Refrigerant Gases

developed by the UN Environment Programme (UNEP) OzonAction, to provide engineers, workers, and technicians with easily accessible information on substances/ gases that they are working with or handling in the workplace on visual printable cards.

Content of Gas Cards - Each Gas Card is printable (in PDF or image format) and includes the following information about each substance/gas: a) General Characteristics (Chemical name, formula and type, ASHRAE designation, Trade names, Harmonized System (HS) codes, Chemical Abstract Service (CAS), United Nations (UN) numbers, Blend/ mixture components, Montreal Protocol Annex and Control measures, main usage, etc.) b) Gas Performance— Radar Chart (in terms of: Ozone depleting potential-ODP, Global warming potential- GWP, Toxicity Class & Flammability Class) c) Environmental and Safety Impact, and Safety Impact (with visualization of Toxicity & Flammability Class, Hazardous Symbols).

More Information - The Gas Card web based tool is part of UNEP OzonAction's portfolio of activities and tools to assist various stakeholders in developing countries, including customs officers and technicians, to achieve and maintain compliance with the Montreal Protocol on Substances that Deplete the Ozone Layer. In the left navigation bar of the Gas Card tool web page, you will find a list of commonly used HFCs and HFC Blends in different sectors.*



Using the Gas Gard web-based tool

The Gas Gard tool is available online on the [OzonAction website](#)

** Based on the Overall Analysis of the Results of the Survey of ODS Alternatives Report (conducted in 119 countries from 2012 to 2015)*

Image by OzonAction



The **Gas card tool** is a web-based visualization tool of refrigerant gases, developed by UN Environment Programme (UNEP) OzonAction, to provide engineers, workers, and technicians with basic information on each substance/gas on visual printable cards that they are working with or handling in the workplace.



HCFC Quota and Licence Tracker - UNEP OzonAction launches a new desktop application to assist with HCFC licences and quotas - National Ozone Officers have the great responsibility of managing the allocation and monitoring of quotas for substances controlled

under the Montreal Protocol. This process can be complex with many importers, especially if the country imports a range of different hydrochlorofluorocarbons (HCFCs) and mixtures containing HCFCs. To address this challenge, OzonAction developed a new desktop application that helps Ozone Officers with the tasks of planning, calculating, monitoring and managing consumption quotas and licences. It can be used on a daily basis to track and manage the current year's quota allocations for different importers, or for future planning by trying different scenarios that adjust the type of substances imported, their quantity, or the number of importers. The HCFC Quota and Licence Tracker allows Ozone Officers to see the effect of such scenarios on the national HCFC consumption and helps ensure that the quotas stay within agreed HCFC Phase-out Management Plan (HPMP) targets. For countries that have ratified the Kigali Amendment, in the future OzonAction will extend the tracker to include hydrofluorocarbons (HFCs) once countries begin designing their quota systems for those controlled substances.

Access the:

- [HCFC Quota tracker app](#)
- [Flyer for more information on the tracker](#)
- [Short video tutorial on the OzonAction YouTube Channel](#)

GWP-ODP Calculator Application – Updated

“Quickly, efficiently and accurately convert between values in metric tonnes, ODP tonnes and CO₂-equivalent tonnes”



Data are extremely important for the Montreal Protocol community, and the data reporting formats for both A7 and CP have changed recently, to a large degree triggered by the Kigali Amendment. HFCs, blends, CO₂-equivalent values, etc, now have to be addressed much more frequently by Ozone Officers during their daily work. Sometimes the terminology and values are complex and can be confusing, and it helps to have it all the official facts and figures in one place. Conversion formulas need to be applied to calculate CO₂-eq values from both GWP and metric tonne values. This free app from OzonAction is a practical tool for Ozone Officers to help demystify some of this process and put frequently-needed information at their fingertips.

What's new in the app:

- An updated more user-friendly interface
- Multilingual interface: English, French and Spanish
- A new **Kigali Amendment mode** - in this mode the GWP values used to calculate the refrigerant blends/mixtures only include GWP contributions from components that are controlled HFCs
- Latest updated ODP and GWP values from the recent reports from the Montreal Protocol technology and scientific expert panels as well as the Intergovernmental Panel on Climate Change (IPCC) reports
- References added for sources of all values
- New refrigerant mixtures (with ASHRAE -approved refrigerant designations)

The new and updated UNEP OzonAction **GWP-ODP Calculator** application will help you to convert between values in metric tonnes, ozone depleting potential (ODP) tonnes and CO₂-equivalent tonnes of substances controlled by the Montreal Protocol and their alternatives.

This application, available at no cost, is particularly useful for National Ozone Officers to assist with understanding and calculating quantities of controlled substances, both pure substances and mixtures, for quota assignment, reporting requirements, etc. Other stakeholders interested in ODP and global warming potential (GWP) values of controlled substances and their alternatives will also find this tool useful.

Operation of the application is very simple — just select a substance from the dropdown list and enter the known value in the appropriate field; the calculator will automatically perform the conversion between metric tonnes, ODP tonnes and/or CO₂-equivalent tonnes and display the corresponding converted values. The ODP, GWP and information about the substance is provided. For mixtures, the components of the mixture and their relative proportions (metric, ODP, CO₂- equivalent tonnes) are also calculated.

The updated **GWP-ODP Calculator** application now includes a new Kigali Amendment mode. The app can now be used in two different modes: the regular "Actual Values" mode and the "Kigali Amendment" mode. In the Kigali Amendment mode, the GWP values provided are those specified in the Kigali Amendment to the Montreal Protocol, i.e. GWP values are only assigned to controlled HFCs. In this mode the GWP values used to calculate the refrigerant blends/mixtures only include GWP contributions from components that are controlled HFCs. The user can effortlessly switch between modes.

The OzonAction GWP-ODP Calculator uses standard ODP values and GWP values as specified in the text of the Montreal Protocol to make the conversions. Other ODP and GWP values from the recent reports of the Montreal Protocol Technology and Economic Assessment Panel and Scientific Assessment Panel as well as the Intergovernmental Panel on Climate Change (IPCC) are used when appropriate, with references to sources of all values used. The app includes new refrigerant mixtures (with ASHRAE- approved refrigerant designations).

This application is designed primarily for use by Montreal Protocol National Ozone Units and other related stakeholders. The application was produced by UN Environment Programme (UNEP) OzonAction as a tool principally for developing countries to assist them in meeting their reporting and other commitments under the Protocol and is part of the OzonAction work programme under the Multilateral Fund for the Implementation of the Montreal Protocol.

If you already have the application installed on your device, be sure to update to benefit from the new features. The app can be viewed in English, French or Spanish.



Smartphone Application: Just search for “*GWP-ODP Calculator*” or UNEP in the Google Play store or use the QR code – free to download! If you already have the application installed on your device, be sure to update to benefit from the new features.



Desktop Application: *GWP-ODP Calculator* is also available online on the OzonAction [website](#)



Watch the new short introductory tutorial **video** on the *GWP-ODP Calculator* - available now on [YouTube](#)



Read/download the [flyer](#) for more information

OzonAction **WhatGas?** Updated

New features:

- An updated more user-friendly interface
- Multilingual interface: English, French and Spanish
- HFCs and HFC containing mixtures
- Latest updated ozone depleting potential and global warming potential values from the recent reports from the Montreal Protocol technology and scientific expert panels as well as the Intergovernmental Panel on Climate Change; as well as the standard ODP and GWP values as specified in the text of the Montreal Protocol
- References to sources of all values used
- New refrigerant mixtures (with ASHRAE approved refrigerant designations)
- Values for ‘actual GWP’ and ‘Kigali Amendment context’ GWP for pure substances and mixtures (i.e. only including GWP values/components assigned to controlled hydrofluorocarbons - HFCs).



The WhatGas? application is an information and identification tool for refrigerant gases: ozone depleting substances (ODS), HFCs and other alternatives. It is intended to provide

a number of stakeholders, including Montreal Protocol National Ozone Officers, customs officers, and refrigeration and air-conditioning technicians with a modern, easy-to-use tool that can be accessed via mobile devices or the OzonAction website to facilitate work in the field, when dealing with or inspecting ODS and alternatives, and as a useful reference tool. If the user requires additional information or assistance in identifying a refrigerant gas they are inspecting or that is described in the relevant paperwork, this can be easily obtained by consulting the application.

Using the application:

If you already have the application installed on your device, be sure to update to benefit from the new features.

Smartphone Application: Just search for “WhatGas?” or UNEP in the Google Play store or use the QR code – free to download!



Desktop Application: WhatGas? is also available online on the OzonAction [website](#)

For more information: Watch the new short introductory tutorial [video](#) on WhatGas? available on [YouTube](#)

See/download the [WhatGas? flyer](#)

Over 10,000 installations on Android and iOS devices to date!

RAC Technician Videos - Full length films!

Two ‘full length’ videos for refrigeration and air-conditioning (RAC) sector servicing technicians: on 1) Techniques, Safety and Best Practice and 2) Flammable Refrigerant Safety.



The OzonAction Refrigeration and Air-Conditioning Technician Video Series consists of instructional videos on techniques, security and best practice and flammable refrigerant safety. They are intended to serve as a complementary training tool RAC sector servicing technicians to help them revise and retain the skills they have acquired during hands-on training. The videos are not intended to replace structured formal technician training, but to supplement and provide some revision of tips and skills and to build on training already undertaken.

These videos are based on the successful UNEP OzonAction smartphone application, the RAC Technician Video Series app. This application has been downloaded on more than **86,000** devices since its launch.


Following many requests to make the videos more versatile and better suited to classroom and training settings, OzonAction has responded to this demand and produced two ‘full-length’ instructional videos.

You may wish to share this message and the flyer with:


- Your national/regional RAC associations



- Training or vocational institutes
- Master RAC trainers in your country
- Any other interested national stakeholders

 You can watch these videos on the OzonAction YouTube Channel:

- [Techniques, Safety and Best Practice](#)
- [Flammable Refrigerant Safety](#)

 The videos are also available for download by request from UNEP OzonAction: unep-ozonaction@un.org



If you prefer to access the video clips via the OzonAction smartphone application, just search for “RAC Technician Video Series” or UNEP in the Google Play Store and iTunes/App Store or scan the QR code **Free to download!** The flyer is available from the [OzonAction website](#).

Refrigerant Cylinder Colours: What has Changed

A new UNEP OzonAction factsheet on the new AHRI revised guideline on a major change to refrigerant cylinder colours

One of the ways in which refrigeration cylinders are quickly identified is by cylinder colour. Although there was never a truly globally-adopted international standard, the guideline from the Air-Conditioning, Heating, and Refrigeration Institute (AHRI) although not required by law was used by the vast majority of industry and chemical producers around the world.

An AHRI revised guideline, first published in 2015, now removes paint colour assignments for refrigerant containers and specifies that all refrigerant containers should have the same paint colour from 2020 onwards.

NOOs and technicians should be aware of this change and inform national stakeholders, as well as familiarising themselves with relevant container labels and markings for refrigerants.

Read/download the [factsheet](#)



Update on [new refrigerants designations and safety classifications](#)

The latest version of the factsheet providing up to date information on refrigerant designations and safety classifications is now available (September 2020 update).



The factsheet, produced by [ASHRAE](#) in cooperation with [UN Environment Programme OzonAction](#) is updated every 6 months.

The purpose is to provide an update on ASHRAE standards for refrigerants and to introduce the new refrigerants that have been awarded an “R” number (or ASHRAE designation) over the last few years and which have been introduced into the international market.

Read/download the [factsheet](#)

The factsheet, as well as more information on ASHRAE-UNEP joint activities and tools, is also available on the [ASHRAE UNEP Portal](#).

Contact: [Ayman Eltalouny](#), OzonAction, UN Environment Programme

[OzonAction's iPIC platform - Updated](#)

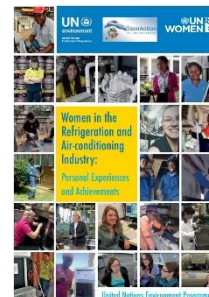
Collaboration between China and Thailand using OzonAction's informal Prior Informed Consent (iPIC) system has resulted in the prevention of a huge consignment of ozone-depleting and climate damaging hydrochlorofluoro-carbons (HCFCs).



Those chemicals, which are primarily used as refrigerants for air conditioners and fridges, are controlled under the Montreal Protocol on Substances that Deplete the Ozone Layer and are being phased out by all countries according to a specific timeline.

[Women in the refrigeration and air-conditioning industry: Personal experiences and achievements](#)

The United Nations Environment Programme's (UNEP), OzonAction, in cooperation with UN Women, has compiled this booklet to raise awareness of the opportunities available to women and to highlight the particular experiences and examples of women working in the sector and to recognise their successes.



All of the professionals presented in the booklet are pioneers. They are role models whose stories should inspire a new generation of young women to enter the field and follow in their footsteps.

Read/download the [publication](#)

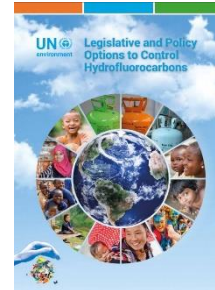
PUBLICATIONS

Legislative and Policy Options to Control Hydrofluorocarbons

In order to follow and facilitate the HFC phase-down schedules contained in the Kigali Amendment, the Parties, including both developed and developing countries, will have to implement certain measures.

This booklet contains a recommended set of legislative and policy options which the developing (Article 5) countries may wish to consider for implementation. It is intended to be a guide/tool for countries.

[Read/download](#)



Latest issue of Centro Studi Galileo magazine,
Industria & Formazione, n. 2 - 2021
(in Italian).



Sustainable Cooling in support of a Resilient and Climate Proof Recovery, Report by the Climate and Clean Air Coalition (CCAC), 2021



MISCELLANEOUS

I am in the Montreal Protocol Who's Who... Why Aren't You?



The United Nations Environment Programme, OzonAction, in collaboration with Marco Gonzalez and Stephen O. Andersen are updating and expanding the "[Montreal Protocol Who's Who](#)".

We are pleased to invite you to submit your nomination*, and/or nominate Ozone Layer Champion(s).

The short profile should reflect the nominee's valuable work related to the Montreal Protocol and ozone layer protection.

Please notify and nominate worthy candidates through the [on-line form](#).

We look forward to receiving your nomination(s), and please feel free to contact our team for any further assistance concerning your nomination.

Take this opportunity to raise the profile of women and men who made an important contribution to the Montreal Protocol success and ozone layer protection.

- View the «Montreal Protocol Who's Who» [Introductory video](#)
- Contact : [Samira Korban-de Gobert](#), UN Environment Programme, OzonAction

** If you are already nominated, no need to resubmit your profile*



Click [here](#) to access recent OzoNews Issues [Request a PDF](#) of the current issue

Disclaimer:

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