

BRIEFING NOTE on Legal Aspects in the context of HFC Management under the Montreal Protocol

1. Scope of the Briefing Note

In 2015, at their Twenty-Seventh Meeting, the parties to the Montreal Protocol decided in decision XXVII/1 entitled “Dubai pathway on HFCs” to “work within the Montreal Protocol to an HFC amendment in 2016 by first resolving challenges by generating solutions in the contact group on the feasibility and ways of managing HFCs”. One of the challenges identified by parties is “*Legal aspects, synergies and other issues related to the United Nations Framework Convention on Climate Change in the context of HFC management under the Montreal Protocol*”.

The purpose of this briefing note is to address issues raised by some parties in recent meetings on legal aspects related to synergies with the United Nations Framework Convention on Climate Change (UNFCCC) with respect to HFC management under the Montreal Protocol (MP). In particular, the note discusses the following issues:

- How to legally manage HFCs under the Montreal Protocol;
- What the legal implications of a potential HFC amendment under the Montreal Protocol are for the climate-related treaties;
- How to align actions on HFCs under the Montreal Protocol with actions under the UNFCCC.

In the context of the present note, the term “ozone regime” refers to the Vienna Convention for the Protection of the Ozone Layer (VC) and its MP, while the term “climate regime” or “climate-related treaties” refers to the UNFCCC and its underlying treaties/agreements comprising the Kyoto Protocol (KP) with its Doha Amendment adopted at the 8th session of the Conference of the Parties serving as the Meeting of the Parties to the KP (CMP 8) in December 2012 and the Paris Agreement (PA) adopted at the 21st session of the Conference of the Parties to the UNFCCC (COP21) in December 2015. The above issues are addressed in the following sections after a brief discussion on the scope of the ozone and climate regimes and the manner HFCs are being managed within the scope of the climate regime.

The present note was prepared by the UNEP Ozone Secretariat. The UNFCCC secretariat has been consulted in the preparation of the note and provided comments and important background information.

2. Scope of the Ozone and Climate Regimes

One of the key objectives of the Vienna Convention for the Protection of the Ozone Layer (VC), as stipulated in its preamble, is to “*protect human health and the environment against adverse effects resulting from modifications of the ozone layer*”. The term “adverse effects” is defined in Article 1 of the VC as “*changes in the physical environment or biota, including changes in climate, which have significant deleterious effects on human health or on the composition, resilience and productivity of natural and managed ecosystems, or on materials useful to mankind*”. In the preamble of the Montreal Protocol, its parties declare that they are “*mindful of their obligation*” under the Vienna Convention and “*conscious of the potential climatic effects*” of certain ODSs.

Furthermore, Article 2(2)(b) of the Vienna Convention states that parties shall: “*Adopt appropriate legislative or administrative measures and co-operate in harmonizing appropriate policies to control, limit, reduce or prevent human activities under their jurisdiction or control should it be found that these activities have or are likely to have adverse effects resulting from modification or likely modification of the ozone layer*”. The recognition of the interrelationship between the atmospheric issues associated with ozone depletion and climate change is noted in Annex I, paragraph 1(b) of the VC, which states that “[t]he Parties to the Convention recognize that the major scientific issues are: [...] [m]odification of the vertical distribution of ozone, which could change the temperature structure of the atmosphere and the potential consequences for weather and climate”.

The above provisions, and therefore the scope of the VC and its MP, indicate that actions under these treaties are not limited to those that directly protect the ozone layer but can include actions to address any related adverse effects,

including changes in climate, that are necessary to protect human health and the environment. This signifies that the ozone regime recognizes the interrelationship between the atmospheric issues associated with ozone depletion and climate change.

Under the climate regime, Article 2 of the UNFCCC states that its ultimate objective is to achieve “*stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system ... within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner*”.¹ This objective is reiterated in the preamble to the KP. The Paris Agreement infers that it is to enhance the implementation of the Climate Convention, including its objective and aims to strengthen the global response to climate change (Art. 2).

A number of actions have already been taken by both the MP and the UNFCCC which reflect the overlap between ozone depletion and climate change. Aware of the effects of emissions of ODS and their alternatives on climate, the parties to the MP have made their concern explicit in numerous decisions.² For example, in 2007 the parties to the MP adopted decision XIX/6 para. 9, which states: “[t]o encourage parties to promote the selection of alternatives to HCFCs that minimize environmental impacts, in particular impacts on climate, as well as meeting other health, safety and economic considerations;...”. In the same decision the parties agreed that the Executive Committee (ExCom) of the Multilateral fund, when developing and applying funding criteria for projects and programmes, give priority to those focusing on, inter alia, “*Substitutes and alternatives that minimize other impacts on the environment, including on the climate, taking into account global-warming potential, energy use and other relevant factors*”. Subsequently, ExCom in Decision 60/44 allowed for up to a 25% bonus, above cost-effectiveness thresholds, when needed for climate benefits, primarily to avoid a transition to high-Global Warming Potential HFCs.

Similarly, the Parties to the UNFCCC adopted in 2002 Decision 12/CP.8 entitled “*Relationship between efforts to protect the stratospheric ozone layer and efforts to safeguard the global climate system: issues relating to hydrofluorocarbons and perfluorocarbons*”. The decision encourages Parties “*to ensure that their actions to address ozone depletion are undertaken in a manner that also contributes to the objective of the Convention*”³; and “*to work towards continued research and development on technologies that safeguard the ozone layer while at the same time contributing to the objectives of the Montreal Protocol and the Convention*”⁴. In the same decision, Governments were also encouraged “*to engage in or continue dialogues with relevant industries and stakeholders to advance information regarding replacement options for ozone-depleting substances in a manner that contributes to the objectives of the Montreal Protocol and the Convention*”⁵.

It is thus evident that both the ozone and climate regimes endeavor to protect the atmosphere from anthropogenic emissions that affect adversely human health and the environment, and that the contracting parties to both regimes may wish to undertake their relevant obligations in a collaborative and mutually supportive manner. The fact that the rapid increase in the use and emissions of high global warming potential HFCs has been the inadvertent result of national policies put in place to protect the ozone layer has been recognized by world leaders, who further agreed to support a gradual phase-down in the consumption and production of HFCs.⁶

¹ http://unfccc.int/key_documents/the_convention/items/2853.php

² Decisions I/10 (1989), II/13 (1990), IV/13 (1992), X/16 (1998), XIV/10 (2002), XIX/6 (2007), XX/8 (2008), XXIV/7 (2012), XXV/5 (2013), XXVI/9 (2014), XXVII/4 (2015)

³ Decision 12/CP.8, paragraph 3.

⁴ Decision 12/CP.8, paragraph 6.

⁵ Decision 12/CP.8, paragraph 4.

⁶ Para. 222 of the Rio+20 outcome document “*The Future We Want*”: “We recognize that the phase-out of ozone depleting substances (ODS) is resulting in a rapid increase in the use and release of high global warming potential hydrofluorocarbons (HFCs) to the environment. We support a gradual phase-down in the consumption and production of HFCs.”
<http://www.uncsd2012.org/content/documents/727The%20Future%20We%20Want%2019%20June%2012%30pm.pdf>

3. Treatment of HFCs under the climate regime

In Article 1 of the UNFCCC, “greenhouse gases” are defined to mean “those gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and re-emit infrared radiation.” Although the term includes ODSs that are greenhouse gases, certain provisions of the UNFCCC and KP explicitly limit their scope to “greenhouse gases not controlled under the MP.”⁷

HFCs fall within the scope of the relevant provisions of the UNFCCC and KP by virtue of being greenhouse gases (GHGs) not controlled by the MP and are also explicitly included in the list of GHGs in Annex A to the KP.⁸ Under the UNFCCC, all Parties have commitments to develop, periodically review and report on the implementation of national policies and measures, including inventories of GHGs, mitigation programs, cooperation in the development and sharing of technologies, and other cooperative efforts.

The UNFCCC refers to an aspirational goal of reducing emissions of all GHGs not controlled by the MP to 1990 levels jointly or individually by 2000.⁹ It was under the KP that quantified emission reduction targets for 37 industrialized countries and the European Union were individually specified and the GHGs to be reduced, including HFCs, were listed in Annex A. 2008-2012 was the first commitment period of GHG emission reductions under the KP. In December 2012, the Doha Amendment to the KP was adopted, specifying further emission reductions or limitations for 37 industrialized countries and the European Union for the period 2013-2020.^{10,11}

Actions related to HFCs under the UNFCCC focus on GHG emission reductions and do not set targets specifically for HFCs. Unlike the focus of the MP which is on control measures for production and consumption, the focus of the UNFCCC regime is on reductions in emissions. At the same time, there are certain reporting elements pertaining to information related to consumption and production as part of the overall UNFCCC regime (e.g. the reporting guidelines on annual GHG inventories require each Annex I Party to the Convention to provide annual inventory, including from the sectors of industrial processes and product use).

Under the Paris Agreement,¹² parties are expected to reduce GHG emissions as indicated in their nationally determined contributions (NDCs).¹³ The intended nationally determined contributions (INDCs) submitted before COP21¹⁴ were analyzed in a synthesis report by the UNFCCC Secretariat,¹⁵ according to which most INDCs addressed

⁷ Relevant provisions in the UNFCCC are Articles 4, paragraph 1 (a), (b), (c), and (d), Article 4, paragraph 2 (a) (b) and (e), Article 4, paragraph 6, and Article 12, paragraph 1 (a); and the relevant provisions in the Kyoto Protocol are provisions of Article 1, paragraph 4, Article 2, paragraph 1 (a) (ii), (vi) and (vii), Article 2, paragraph 2, Article 5, paragraphs 1 and 2, Article 7, paragraph 1, and Article 10 (a).

⁸ <http://unfccc.int/resource/docs/convkp/kpeng.pdf>

⁹ The United Nations Framework Convention on Climate Change, Article 4.2 (b).

¹⁰ The composition of parties in the second commitment period of the KP is different from that in the first commitment period.

¹¹ As of March 2016, the Doha Amendment was ratified by 61 countries, with 144 instruments of acceptance needed for the Amendment to enter into force. However, Parties have already begun the implementation the second commitment period pending the entry into force of the Amendment (decision 1/CMP.8).

¹² The Paris Agreement will enter into force on the thirtieth day after the date on which at least 55 parties to the UNFCCC accounting in total for at least an estimated 55 percent of the total global GHG emissions have deposited their instruments of ratification, acceptance, approval or accession.

¹³ Parties are invited to communicate their first nationally determined contribution no later than when the party submits its respective instrument of ratification, accession, or approval of the Paris Agreement. If a Party has communicated an intended nationally determined contribution (INDC) prior to joining the Agreement, that Party shall be considered to have satisfied this provision unless that Party decides otherwise (section III, decision 1/CP.21, UNFCCC COP21).

¹⁴ 119 intended nationally determined contributions were submitted by 147 parties by 30 October 2015 in accordance with decision 1/CP.19.

¹⁵ Synthesis report on the aggregate effect of intended nationally determined contributions, FCCC/CP/2015/7.

all major national GHG emissions or the most significant sources, and many contained quantified emission reduction targets in various forms.¹⁶ A number of these included HFCs¹⁷.

The Paris Agreement does not indicate the specific GHGs that should or should not be included in the NDCs. While Parties are currently using the approaches, methodologies, assumptions and metrics consistent with those developed by the Intergovernmental Panel on Climate Change (IPCC), including the guidelines for GHG inventories, further guidance on the various aspects of NDCs are yet to be developed for consideration and adoption by the Parties.

As in the case of the UNFCCC and KP, under their NDCs Parties have the flexibility to address or not to address specific GHGs as long as their total emission reductions contribute, in a fair and ambitious way, towards the overall objective of globally achieving stabilization of GHGs at a level that would prevent dangerous anthropogenic interference with the climate system.

The UNFCCC, therefore, puts in place a framework for emission reduction of all GHGs not controlled by the MP. The focus of this framework is on domestic measures leading to emission reductions. While the Climate Convention does not introduce lists of specific GHGs, the reporting guidelines provide such reference and the reporting on measures to reduce HFC emissions is either required (for Annex I Parties)¹⁸ or encouraged (for non-Annex I Parties)¹⁹. Such measures are regulated in more detail in the context of the Kyoto Protocol, albeit only for a group of Parties included in Annex I. At the same time, there does not appear to be, at this time, a treaty regime with internationally agreed control measures for HFCs applicable to all States.

4. On legally managing HFCs under the Montreal Protocol

A treaty may be amended by agreement among the parties in accordance with its treaty provisions. Parties to a treaty can agree to add or to modify that treaty or conclude a new treaty.²⁰ According to article 9, paragraph 1 of the VC, any party may propose amendments to the MP. Such amendments must “*take due account, inter alia, of relevant scientific and technical considerations*”. Likewise, Articles 2(9) and 11 of the MP set out procedures for adjusting or amending the Protocol. The articles do not set out the scope of adjustments or amendments (except that adjustments should be “*based on the assessments made pursuant to Article 6*” (Article 2(9)(a)).

The parties to a treaty may decide to amend the text of such treaty and no authorization from any third party is necessary, be it an external entity to the treaty or a non-party to the treaty. This means permission from no other regime is required to amend the MP. The parties have in the past adopted amendments to the Protocol to regulate controlled substances in diverse ways, including amending or adjusting their phase out schedules, listing new substances and their ozone depletion potential, associated measures such as trade restrictions, creation of a financial mechanism, and licensing the import and export of controlled substances.

According to Art.6 para 4 of the VC “*The Conference of the Parties shall keep under continuous review the implementation of this Convention, and, in addition, shall: ... (e) Consider and adopt, as required, in accordance with articles 9²¹ and 10, amendments to this Convention and its annexes; (f) Consider amendments to any protocol, as well as to any annexes thereto, and, if so decided, recommend their adoption to the parties to the protocol concerned;*”.

¹⁶ The forms include: economy-wide mitigation targets relative to a specified base year; targets for reducing emissions relative to business as usual level for the whole economy or specific sectors; intensity targets with emission reduction per unit of GDP; timeframe for emission peak years; and strategies, plans and actions for low-GHG emission development.

¹⁷ <https://unfccc.int/resource/docs/2015/cop21/eng/07.pdf>

¹⁸ See e.g., decisions 4/CP.5, 2/CP.17, 24/CP.19, 13/CP.20.

¹⁹ See e.g. decisions 17/CP.8, 2/CP.17.

²⁰ This is a general international law principle, which is also reflected in Articles 39 and 40 of the Vienna Convention on the Law of Treaties. The text of the treaty can be found at:

<https://treaties.un.org/doc/Publication/UNTS/Volume%201155/volume-1155-I-18232-English.pdf>

²¹ Art.9 of the Convention states “1. Any Party may propose amendments to this Convention or to any protocol. Such amendments shall take due account, inter alia, of relevant scientific and technical considerations. 2. Amendments to this

The MP does not include specific provisions on amendment, as Art.9 of the VC governs the procedure of amending the MP. Art.11 para 4 (h) of the MP stipulates, however, that one of the functions of the meetings of the Parties is “to consider and adopt, as required, proposals for amendment of this Protocol or any annex and for any new annex.”

The MP sets out provisions governing production, consumption and trade with respect to certain substances as stipulated, inter alia, in its articles 2 and 4. Those substances are defined in Article 1 (4) as “controlled substance”. The Protocol also sets out other measures associated with controlled substances.

HFCs are “alternative substances” as defined in article 1 of the VC.²² In general, the MP sets out the provisions governing certain aspects of “alternative substances”. In paragraph 1(b) of Article 9, the Protocol stipulates that: “[t]he Parties shall co-operate, consistent with their national laws, regulations and practices and taking into account in particular the needs of developing countries, in promoting, directly or through competent international bodies, research, development and exchange of information on”, among others, “possible alternatives to controlled substances, to products containing such substances, and to products manufactured with them”. As addressed in subparagraph (a) of article 10A, “[e]ach Party shall take every practicable step, consistent with the programmes supported by the financial mechanism, to ensure that the best available, environmentally safe substitutes and related technologies are expeditiously transferred to Parties operating under paragraph 1 of Article 5”.

Furthermore, Art.6 para 4 (k) of the VC explicitly refers to the COP having the initiative to “(h) consider and undertake any additional action that may be required for the achievement of the purpose of [this] Convention.” In this regard, the provision of Article 2, para 1 of the VC should be considered which stipulates that “the Parties shall take appropriate measures in accordance with the provisions of this Convention and of those protocols in force to which they are party to protect human health and the environment against adverse effects resulting or likely to result from human activities which modify or are likely to modify the ozone layer”.

In the light of the above, it appears that there is scope within the MP for parties to address concerns over the consequences of the control actions on ODS leading to increased production and use of HFCs as alternative substances, which are in turn found to be not environmentally safe and likely to cause harm to human health and the environment by contributing to climate change.

The VC and MP and the UNFCCC and KP are separate and autonomous treaty regimes and no hierarchy exists between them. Any decision to amend the MP is therefore under the authority of the MP parties alone and would have legal effect only on those parties.²³ Consequently, should the MP parties decide to amend the Protocol to regulate HFCs, such decision would not be subject to and would not require a decision of the parties to the UNFCCC/KP. There is therefore no precondition for the Parties to the UNFCCC/KP to first amend the provisions of those treaties relating to HFCs or to invite action under the MP before the MP parties can act themselves to regulate HFCs under the MP. Similarly, should the parties to the UNFCCC and KP decide to take further action concerning HFCs, such action would have legal effect only for the UNFCCC and KP.

In summary, there do not appear to be in the MP regime legal barriers preventing the parties from amending the MP to include production and consumption of HFCs. The language in the VC and MP recognizes the interaction between ozone depletion and climate change and provides a legal basis for action should the parties decide that they want to regulate substances that are used as substitutes for ODSs. The decision of whether or not to take such action through the adoption of an HFC amendment rests solely with the parties to the MP.

Convention shall be adopted at a meeting of the Conference of the Parties. Amendments to any protocol shall be adopted at a meeting of the Parties to the protocol in question.”

²² Article 1(4) of the Vienna Convention stipulates that “Alternative substances” means substances which reduce, eliminate or avoid adverse effects on the ozone layer.

²³ Article 30(4) of the Vienna Convention on the Law of Treaties provides guidance on the rights and obligations of states parties to successive treaties relating to the same subject matter.

5. On the legal implications of a potential HFC amendment under the MP for the climate-related treaties

The commitments of Parties under the UNFCCC and the KP relate to “greenhouse gases not controlled by the Montreal Protocol”. Until now, there has been no need to define the term “greenhouse gases not controlled by the Montreal Protocol” under the UNFCCC and the KP. Should any amendment to regulate HFCs be adopted under the MP, it is the UNFCCC COP and the CMP that would have the appropriate authority to clarify how, taking into account the scope and nature of any such regulation, the climate change regime relates to those changes.

In addition, it can be noted that the HFC amendment proposals currently on the table contain conflict clauses that explicitly describe the relationship between the climate and the ozone treaties so as to avoid conflict, namely by outlining how controls on HFC production and consumption under MP are to co-exist with the measures to reduce HFC emissions under the UNFCCC. In adopting any such HFC-related amendment, the parties to the MP might wish to consider some language to that effect to indicate that an amendment to regulate HFC production and consumption under the MP is not intended to displace measures to reduce HFC emissions already set out under the UNFCCC and KP. While, given the autonomous nature of the two treaty regimes (see section 4 above), such clarification might not have automatic legal effect for the climate treaties, it could help to clarify the intent of the MP parties.

Should an amendment to the MP concerning HFCs be adopted by the parties, it will have legal effect only on those Parties to the MP for which the amendment enter into force. Any change to the provisions of the UNFCCC and KP can only be effected by action of the parties to the UNFCCC/KP in accordance with the relevant provisions of the UNFCCC and KP.

From a legal stand point, regulatory measures on HFCs under the UNFCCC/KP and the MP are not necessarily exclusive of each other, and can co-exist without any conflict. When proposing amendments, the parties to both regimes need to take into account the existence –and need for co-existence- of the two regimes and that they are intended to be mutually supportive in the attainment of their respective objectives. The provisions under the respective treaty regimes need to be applied in a synergetic and supportive manner through practices of the respective parties. Such practices may include the interpretation or clarification that provisions under the two regimes are compatible.

6. On aligning actions under the MP with actions under the UNFCCC on HFCs

On the basis of the above discussion, it follows that not only there are ways to introduce HFCs into the MP that would prevent exclusion of HFCs from measures to reduce emissions, but moreover, the MP could be one of the means towards achieving reductions in GHG emissions under the UNFCCC.

Co-existence or cooperation among treaties or international organizations is not uncommon. For example, while the parties to the Montreal Protocol monitor trade in recycled/unwanted ODS, the Basel Convention controls the transboundary movements and disposal of unwanted ODS classified as hazardous wastes. Despite dealing with the same chemicals, the two treaties complement each other in this regard and discharge their respective roles in a cooperative and supportive manner. According to Art 7.2(l) of the UNFCCC, the COP is mandated to “*seek and utilize, where appropriate, the services and cooperation of, and information provided by competent international organizations...*”. This suggests that the UNFCCC envisions other UN bodies could play a role in its implementation. Article 2.2 of the KP spells out a role that ICAO and IMO to play on aviation and marine bunker fuels, respectively. The Paris Agreement does not repeat this specific language, but there is nothing in the Paris Agreement that prevents these organizations from taking action to control GHG emissions and in fact both are likely to continue to do so with any resulting emission reductions being reported by parties in their NDCs.

7. Summary

In the light of the above review of the legal and other implications of a possible amendment on HFCs under the MP, the key points made in the note are summarized below:

- It appears legitimate –and legally possible- within the scope of the MP for parties to address concerns over the consequences of the control actions on ODS leading to increased production and use of HFCs as alternative substances, which are in turn found to be not environmentally safe and likely to cause harm to human health and the environment by contributing to climate change;
- The ozone and climate regimes are separate and autonomous. Any decision to amend the MP is therefore under the authority of the parties to the MP alone. Should MP parties decide to amend the Protocol to regulate HFC production and consumption, such a decision will not be subject to, nor would it require a corresponding decision of the Parties to the UNFCCC;
- Should any amendment to regulate HFCs be adopted under the MP, it is the UNFCCC COP and the CMP that would have the appropriate authority to clarify how, taking into account the scope and nature of any such regulation, the climate change regime relates to those changes;
- The UNFCCC does not in any way establish exclusive control over HFCs but in fact recognizes the importance of working with other competent international organizations;
- In dealing with HFCs, parties to the ozone and climate treaties are expected to implement their respective obligations in a mutually supportive manner, coordinating their related actions to avoid duplication of efforts and enhance synergies;
- From an operational perspective, emission reduction actions and accounting for HFCs under the climate regime would not cause conflict with any production and consumption phase down that might be adopted and implemented via an amendment under the MP. Emission reductions of HFCs will be achieved through phase down in production and consumption and, provided that HFCs remain within the scope of the UNFCCC and KP, there is nothing preventing UNFCCC parties from counting these reductions as part of emissions reductions under the climate-related treaties, including as part of their respective NDCs. The MP could thus be regarded as one of the means to achieve the HFC emission reduction reported under the climate regime.