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Executive Committee of the
Interim Multilateral Fund for the
Implementation of the Montreal Protocol

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**PROPOSED AMENDMENTS TO THE INDICATIVE LIST
OF CATEGORIES OF INCREMENTAL COSTS**

1. The Open-Ended Working Group considered at its Seventh Meeting, which was held in Geneva on 8-17 July 1992, requests for the following changes to the "Indicative List of Categories of Incremental Costs:"

(i) to add a new sub-paragraph 2(a) (vi), as follows:

"Research and development on substitute substances;"

and,

(ii) to replace sub-paragraph 2(c) (ii) with a new sub-paragraph, as follows:

"Cost of recovery, recycling, reclamation and destruction of ozone depleting substances including:

- . Cost of establishing new production facilities for recovery, recycling, reclamation and destruction equipment;
- . Cost of patents, designs and incremental cost of royalties;
- . Capital costs;
- . Cost of training, as well as the cost of research and development to adapt technology to local circumstances."

2. The Working Group decided that ". . . the Executive Committee should be asked to consider, at its next meeting, the inclusion of those items in the Indicative List and to make its recommendations to the Fourth Meeting of the Parties."

3. The following is a response to that request prepared by the Fund Secretariat, for consideration by the Executive Committee at its Eighth Meeting.

Introduction

4. The special needs of Parties operating under paragraph 1 of Article 5 were recognized in the Protocol and its subsequent amendment.

5. While the Protocol provided for a 10 year grace period for Article 5 countries, it called for co-operation between the Parties regarding research, development, exchange of information and technical assistance as articulated in Articles 9 and 10 of the Protocol.

6. Article 10 was subsequently amended at the Second Meeting of the Parties. The amended Article 10 established a Financial Mechanism. The amendment added a new Article 10 A to the Protocol on Transfer of Technology to Article 5 countries.

7. The Financial Mechanism includes a multilateral fund which will meet the agreed incremental costs incurred by Article 5 countries in their compliance with the control measures of the Protocol. Although the three categories of incremental costs as included in the Indicative

List of Categories of Incremental Costs are indicative, the Executive Committee was mandated by the Parties to consider incremental costs other than those included in the list.

8. Furthermore, UNEP established assessment panels to address the technical and economic aspects of phasing out controlled substances. The composition of these panels includes participants from countries operating under paragraph 1 of Article 5.

9. Panel reports were issued twice, in 1989 and 1991. Further revision of these reports is foreseen. The reports include most of the pertinent information regarding ODS substitutes and associated technologies.

10. In addition, UNEP, as one of the Interim Multilateral Fund's implementing agencies, is entrusted with clearinghouse functions which includes providing information on substitutes and technologies to Article 5 countries.

Proposal One: Research and Development on Substitutes

11. The proponents of this proposal have argued that new research and development on ODS-substitutes is essential for the protection of the ozone layer and therefore a legitimate activity in Article 5 countries for support from the Fund. Now that developing countries have joined the global action to achieve the targets of the Protocol, they should also be assisted in launching basic R&D programmes. Among others, one justification put forward is that such R&D would not only complement ongoing activities, but also work against the perpetuation of dependence on technology from the industrialized world, in general, and a few transnational companies, in particular.

12. Moreover, research and development in a developing country is, generally, far less expensive than in a developed one, especially in sectors in which the R&D effort has to be prolonged and sustained. This presumes, of course, that the basic physical facilities for research already exist, along with the necessary human resources. If these facilities and resources exist, the incremental costs should be restricted to the capital outlay for equipment and the recurring costs of manpower and materials. The establishment of new facilities/resources for long term research in a limited sector such as ODS substitutes cannot be justified.

13. Research and development is open-ended by definition. For serious funding consideration, any proposed activity would have to be sharply defined. Such activities should not duplicate or repeat efforts already conducted at great expense over a considerable period of time or address 'soft' sectors such as aerosols. Ideally, R&D efforts supported by the Fund should concentrate on the 'hard' sectors (such as domestic refrigeration) in which long-term solutions have yet to be found.

14. Even where clearly focused, basic R&D on substitutes is likely to be prolonged because of the range of tests required, despite the rapidly intensifying efforts in the past two decades by well-financed transnational corporations. There is still some uncertainties about substitutes for

a number of applications. Given the time-frame for ODS phase-out and the inclusion of more chemicals in the Protocol, it is certain that the research effort would continue for several decades.

15. When assessing cost-effectiveness, the significance of the ultimate, overall benefit would need to be borne in mind. Should one or more safe and acceptable substitutes be developed through R&D in an Article 5 country, supported by the Fund, the technology would benefit other countries as well.

16. Financial support for an R&D project from the Fund would amount to public funding for the project. The results should not, therefore, be subjected to a privately held (or otherwise protective) patent or other intellectual property rights (IPR). The research would really have been carried out on behalf of all of the Parties to the Protocol and guarantees would be required to assure the public availability of the research undertaken and technology developed.

17. The inclusion of R&D projects on substitutes would expand the scope of the Fund in a basic way. At present, the focus is on assisting individual Article 5 countries to implement the Protocol. By financing R&D on substitutes, the Fund would be supporting more general and long-term action to protect the ozone-layer by the entire global community. In other words, the Fund would remain dedicated not just to Article 2 to 2E (and further control measures) but would also service Article 9. This reasoning is based on the assumption that any R&D supported by the Fund would be in the public domain, in a transparent manner, with the end-results being publicly available.

18. As is the case in an industrial enterprise, R&D funding requests will compete with funding requests for projects aimed at ODS-replacement in Article 5 countries. Outflows from the Fund are likely to increase dramatically in the next few years as start-up problems are solved, the control measures become effective for Article 5 countries, and major investment projects are initiated. Unless funded as a specific budget item at the time of each replenishment of the Fund, the availability of resources for long term R&D as against immediate ODS-replacement is likely to remain limited.

Recommendation

19. The present Indicative List does not include R&D on substitutes, directly or indirectly. Presuming that the three-year Interim Multilateral Fund is to be converted into a long term mechanism, the inclusion of this activity, in the Indicative List may be appropriate. For the various reasons outlined in this paper, such an addition to the Indicative List would necessarily have to be accompanied by a series of qualifications about, inter alia, the aim, direction and focus of the R&D activity, the time-frame, the existence of infrastructure, the question of patents and other IPRs and close monitoring of progress.

20. The inclusion of a provision for R&D on substitutes in the Indicative List (with the requisite qualifications) would place this long term, generalized activity at par with the other

activities in the Indicative List, which are comparatively short term and action-oriented in country-specific terms. A distinction could be made between the two kinds of activities through guidelines that could be established by the Parties. However, this may lead to the creation of a further hierarchy in the components of the list. It may be preferable, instead, to rely on Paragraph 2 of Appendix I of Annex IV to Decision II/8 of the Parties, which empowers the Executive Committee to consider other incremental costs (than those in the Indicative List) that could be met by the financial mechanism.

Proposal Two: Recovery, Recycling, Reclamation and Destruction of ODS

21. This proposal seeks to widen the scope of sub-paragraph 2(c)(ii) in the existing Indicative List of Categories of Incremental Costs, basically by including the cost of establishing new facilities to produce the equipment required for recovery, recycling, reclamation and destruction of ODS. Existing section 2(c)(ii) states:

"Cost of collection, management, recycling, and if cost effective, destruction of ozone-depleting substances."

22. The Executive Committee has recognized the importance of these activities, and approved projects on recycling in several Article 5 countries. These activities are likely to continue for several decades and are finding increasing favour as significant measures are being taken to limit new production of ODS and to destroy the chemicals, where possible. These projects do not include the establishment of new production facilities for recycling equipment, but only purchase of such equipment through imports, coupled with training and technical assistance.

23. To an extent, the issue of establishing facilities to produce recycling equipment is comparable with that of establishing new facilities to produce substitute substances as in sub-paragraph 2(a)(iii) of the Indicative List. Essentially, sub-paragraph 2(a)(iii) uses existing facilities for production of controlled substances as a reference point, and aims at converting or replacing those facilities. Category 2(b), similarly addresses the issue of intermediate goods.

24. There is the larger question of technology transfer. If the production of substitutes, as well as modified intermediate goods, qualify for technology transfer, then so may the production of equipment for recovery and recycling.

25. So far, there have been no comparative cost-estimates made of importing the necessary equipment for recycling and establishing facilities to produce the equipment. It seems reasonable to assume that the cost-effectiveness of local production would grow with the quantity of equipment required.

26. The proposed amendment to sub-paragraph 2(c)(ii) could, however, create certain difficulties for the following reasons:

(i) The aim of categories 2(a) and 2(b) of the Indicative List is to convert or replace existing production facilities so that the production of controlled substances, and use in intermediate goods, is reduced or eliminated. The establishment of new capacities for producing substitutes is not envisaged, for obvious reasons, even though such new capacity would eventually lead to the same desirable result.

(ii) For this reason, the applicability of categories 2(a) and 2(b) is restricted to Parties which have the facilities to produce controlled substances and intermediate goods. However, recovery and recycling activities are not related to existing production capacities in the same way, and could be undertaken by any Article 5(1) country.

27. The present Indicative List has a strong bias towards cost-effectiveness in the destruction of ODS. This would continue to be a major consideration for some time.

28. It may not be necessary, therefore, to amend the present sub-paragraph 2(c)(ii) in this regard. In any case, the present wording fully allows for destruction facilities to be established in Article 5 countries, if cost-effectiveness can be established.

29. From the above analysis, it would seem reasonable that, as in the case of substitute substances and intermediate goods, the Fund may also support the establishment of facilities to produce recovery, recycling, and destruction equipment under certain conditions.

Recommendations

30. In broad terms, the present sub-paragraph 2(c)(ii) is adequate for this purpose since the "cost of . . . recycling" could include production of equipment for recycling, if this is more cost-effective than imports, or presents a better option in the light of paragraph 1(a) of Appendix I of Annex IV of Decision II/8 of the Parties.

31. It may be preferable for the Executive Committee to entertain proposals to establish facilities to produce equipment for recovery, recycling and reclamation and destruction of ODS on a case-by-case basis, within the purview of the existing sub-paragraph 2(c)(ii).

RECOMMENDED DECISION

On the basis of its experience so far the Executive Committee recommends the following:

1. At least for the present, the existing Indicative List of Categories of Incremental Costs as included in Appendix I of Annex IV of Decision II/8 of the Second Meeting of the Parties should be left unchanged.
2. The Executive Committee, as mandated by the Parties, can consider proposals regarding research and development on substitutes and, equipment production facilities for recycling and destruction on a case-by-case basis.