



**United Nations
Environment
Programme**



Distr.
Limited

UNEP/OzL.Pro/ExCom/31/59
29 June 2000

ORIGINAL: ENGLISH

EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Thirty-first Meeting
Geneva, 5-7 July 2000

**DRAFT TERMS OF REFERENCE
FOR A STUDY ON CFC ALTERNATIVES IN RIGID FOAM**

(Submitted by Sweden as the Convenor of the open-ended contact group established under Decision 30/1 in order to consider the question of policy on HCFC use as an interim technology)

**DRAFT TERMS OF REFERENCE
FOR A STUDY ON ALTERNATIVES TO CFC IN RIGID FOAM APPLICATIONS**

1. The Executive Committee of the Multilateral Fund wishes to undertake a study to examine the economic aspects of conversion from CFCs in the rigid foam subsector. The purpose of the study is to provide transparency and comprehensive information on:

- the factors leading to the choice of alternative technologies in Article 5 countries at the enterprise level. Factors to be considered are inter alia cost, availability of alternatives, the interim or final nature of the alternative, effects of local safety regulations, availability of Fund assistance, etc.
- the short term and long term economic consequences for firms converting to various alternatives to CFCs.

2. The objective of the study is to provide to firms in Article 5 countries a greater understanding of the economic impacts of conversion to various alternatives. The Executive Committee should gain a clearer picture of how Fund policies may influence the choice of alternatives.

3. Following key factors shall be considered in the study:

- The study should cover the full range of alternative technologies to CFCs in the rigid foam sector, i.e. hydrocarbons, water, CO₂, HCFCs, HFCs, etc.
- The study should examine the relevant funding rules of the Multilateral Fund and analyse the impacts on the choice of alternatives and (future) implications for the Multilateral Fund. As a starting point it should consider projects funded to date, their choices of technologies and any completion reports on those projects.
- The study should carry out an analysis of capital costs associated with the foam projects. This would include the equipment directly needed to make the transitions to the technologies investigated, and the changes necessary to make certain transitions.
- The study should examine the operational cost or benefit associated with the use of the alternative technology selected. Related costs should also include costs for changes in the starting material, additives, costs for performing changes of the properties of the product (for example density, R-factor, etc.). The focus should be on estimating total operational cost, as well as any costs that may be incurred by the firm that are not compensable under Fund rules. The latter may include costs for relevant country firms that face project costs exceeding the Fund's cost effectiveness thresholds, project term cost or benefit (beyond the compensable 2 years) of providing the alternative chemical at a level needed to sustain current output, and costs of secondary conversions from HCFCs considering factors related to the timing of compliance with the Montreal Protocol's HCFC

provisions, as well as factors related to the useful life, usability, or retrofit potential for the use of current equipment, cost of conversion and evolving market acceptability issues.

- In order to enable enterprises to clearly understand short term and long term economic implications they may be facing, the study should make assumptions regarding the cost of CFCs and the various alternatives. With regard to alternatives under advanced development but not currently commercially available, the study should make a range of assumptions on the basis of probable scenarios ahead. The study should also consider the added cost/benefit of conversion using each of the various technologies. In that regard, it should assume a [4], [10] and [15] year project lifetime.
 - While, to the extent found relevant, the above factors should be considered, they are not meant to be overly limiting. In developing a consistent evaluative methodology, the consultant should contact purveyors of the different technological options. In the conduct of the study, efforts should also be made to utilize local expertise gained in Article 5 countries by the implementing agencies.
 - The study should contain case studies which provide information relevant to different foam applications, size of firms and economies of scale. Representative samples should be considered from the point of view of the end-users.
4. The Secretariat of the Multilateral Fund shall contract for the services of an independent consultant familiar with conversion projects to carry out the study.
5. If possible, the Executive Committee believes it would be desirable to have at least a summary of findings in time for a December meeting of the Executive Committee.