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The Costs to Developing Countries of Meeting the Terms of the Montreal Protocol

Executive Summary

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(Study on the assumptions and methodologies underlying estimates of the cost of conversion for developing countries from ozone depleting substances)

THE COSTS TO DEVELOPING COUNTRIES OF MEETING THE TERMS OF THE MONTREAL PROTOCOL

A. MARKANDYA

Executive Summary

1. This report has attempted to estimate the costs to developing countries of joining the Montreal Protocol. The quantification of such costs is, at best, an imprecise exercise. Given the serious lack of information at present, the figures derived should only be seen as orders of magnitude.

2. The items of cost that have been assessed are:

(i) the higher costs of substitutes to CFCs,

(ii) the costs of amortization of CFC producing equipment,

(iii) the costs of adjustment in user industries,

(iv) the higher costs of CFC using imports in developing countries and

(v) the costs of more accurate information on CFC use in developing countries.

Other items of costs can conceivably exist but it is the consultant,s view that accurate costing for these will never be possible and therefore compensation for them cannot be agreed upon.

Higher Costs of Substitutes to CFC's

3. In the paper two approaches were taken to measuring thus important item. These converged around a figure of $1.8 billion (in present value terms) for the period 1990-2008 i.e. 18 years. On an annualised basis this represents a cost of about $150 million. However, it is possible that this item of cost will be much less than this. The main uncertainty is how fast prices will fall for CFC substitutes as production expands.

Cost of Amortization of CFC Producing Equipment

4. There is a cost arising here if CFC plants have to be closed down before the end of their economic life. The maximum loss that could be estimated was $155 million, and this should not be incurred for another 10 years. However, it is suggested that developing countries be able to borrow from the fund against this depreciation allowance now, so as to begin restructuring the CFC producing industries. Eventually, of course, this payment is viewed as a grant.

Costs of Adjustment in User Industries

5. Two separate items of costs have been identified here. The first is the need for a technical assistance fund to provide training and know-how. This would have an nitial allocation of $10 million year for the first two years. Subsequently it could be expanded, depending on the demand for its services. The second is a fund to assist industrial restructuring is required. Estimating the size of this fund is extremely difficult without the detailed country case studies that are still outstanding. Nevertheless an initial allocation $200 million for the first three years is proposed here.

Higher Costs of CFC Substitute based Imputs

6. Although some increase in the costs of CFC substitute-using imports may result from the Protocol, the addditional cost is not likely to be large in most cases. Calculating it and making the appropriate transfers could costs as much as the transfers themselves. Hence it is recommended that this item not be funded. However, if there are industries using CFC based products as intermediate inputs, a compensation fund to assist them on a case by case basis should be available. No budget can be estimated for this but the sum involved should be small compared to other sums.

Costs of Information Collection

7. Finally there is a great need for systematic information to be collected on the production, consumption and use of CFCs and their substitutes by country. This is an urgent task and a budget of at least $10 mllion should be allocated for this purpose.

8. If one had to estimate what the fund's annual budget for the first three years, it would then amount t something between $240-300 million, depending in how much of the amortization fund was used by during these three years. It is very likely that this figure will rise as the developing countries start to substitute for CFCs in a serious way in the late 1990s

9. The paper concludes by addressing the question of the mechanism for transferring these funds to developing countries. For the higher costs of substitutes some direct transfer mechanism needs to be set up, through a secretariat supporting a governing council of the Contracting Parties to the Protocol. The same applies to the amortization fund. For the user adjustment costs, part will be of a technology transfer kind and part of a new investment kind. The former will require technical assistance of the sort provided by UN agencies such as UNDP, but may also require direct purchase of technology from the private sector in the developed countries. The latter is probably best handled through an investment implementing agency such as the World Bank. However it is clear that some secretariat to support the Contracting Parties will be required, and UNEP is probably the most qualified agency to accomodate that.