

UN Secretary-General's Message in Observance of World Environment Day, 5 June 1988

World Environment Day is observed—officially and at community level—once in a year. The observance, however, expresses an unremitting concern. Not a day passes without a reminder at one or more points of the globe that damage to our environment entails grave dangers to health, prosperity, and progress.

Crawling deserts, retreating forests, crumbling topsoil, disappearing or endangered species of plants and animals, the contamination of the atmosphere—these are among the more pronounced symptoms of that ecological violation which now threatens the natural system supporting human life. The realization is forcing itself upon the human conscience that the protection, rehabilitation, and improvement, of the environment, and the preservation of the world's natural resources, is one of the essentials of sustainable development and of a just and stable world order.

The change in attitude and policy which has been induced by this world-wide awareness is cause for satisfaction. International cooperation to define and deal with the dangers to the natural surroundings of human life is improving. One of its most noteworthy results has been the conclusion last September of a major international agreement to protect the global environment. Under the auspices of the United Nations Environment Programme, the 'Montreal Protocol' was adopted to reduce the use of chem-

icals that are damaging the ozone layer which protects life on Earth from excessive ultraviolet radiation.

It is only through such cooperation that we can address comprehensively the profound issue of change in the global climate due to the warming of the atmosphere by industrial and other economic activities. Desertification, deforestation, and many kinds of pollution, also call for global and regional agreements for action. The United Nations system is ready and qualified to provide the appropriate mechanisms for developing such international cooperation along a broad front.

Economic progress remains exposed to the danger of its reversal if nations cause a depletion of their natural resources and fail to provide for the generations to come. Repair and nurture of the environment open prospects of sound and balanced growth for peoples across the globe. This World Environment Day is once again an occasion for people everywhere, in both the industrialized and the developing countries, to dedicate themselves anew to a cause upon which our common future depends.

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The CFC-Ozone Issue: Alternative Products and the Montreal Protocol*

DuPont's recent decision to phase out the production of fully halogenated chlorofluorocarbons (CFCs) reaffirms our position that the Montreal Protocol is the most effective process for responding to recent advances in the science and for controlling global emissions of CFCs.

DuPont is committed to an orderly transition to the total phaseout of fully halogenated CFCs by the turn of the century. Also, we are urging all nations to accelerate ratification of the Montreal Protocol, and then immediately initiate the Protocol's assessment process to consider additional steps that would accomplish a total phaseout in a timely manner.

DuPont's Position

As it has evolved over the years, DuPont's position on the CFC-ozone issue has consistently been based on the best available scientific information. Until very recently, we concluded that atmospheric science and computer modelling projections did not support the call for actions to reduce CFC emissions. That position was in turn supported by the 1985 World Meteorological Organization report which concluded that there had been no statistically significant deterioration in protection afforded by the ozone layer. The WMO report also noted the prediction of computer models that, for current production-levels of CFCs, changes in ozone would be within the magnitude of those observed due to natural causes.

In September 1986, based on projections that CFC production and emissions could double in the next century, coupled with improved understanding of the growing body of scientific information, DuPont began advocating global emission controls. We also stated publicly our strong support for world-wide adoption of the Montreal Protocol as the most effective response to this global issue.

* See also Dr Glas's 'DuPont Position Statement on the Chlorofluorocarbon-Ozone—Greenhouse Issues', published in our Winter issue of 1986 (Vol. 13, No. 4, pp. 363-4).—Ed.

On 15 March 1988, NASA's Ozone Trends Panel announced new scientific findings which led to our current position that additional steps should be taken to protect the ozone layer on a global basis. For DuPont, that translates to a total phaseout of fully halogenated CFC production by the turn of the century.

Alternative Products

CFCs have become a widely-used product because they provide a 'safe' and effective way of accomplishing a variety of tasks demanded by society. These uses range from refrigeration for the production and distribution of food, blood, and biological matter, to air-conditioning for homes and office buildings, and to cleaning electronic components and sterilizing medical devices.

Because of the societal importance of these compounds, it is important that the transition to alternatives be accomplished in a safe and orderly fashion. As cooperative efforts will be critical in minimizing economic disruptions which could otherwise result, we have asked the user-industries and other CFC producers to join us in pursuit of this goal.

Role of the Montreal Protocol

Because it involves a global consensus-building process, the Montreal Protocol is a key element in the timely and safe adoption of alternative products. The current provisions of the Protocol call for a freeze in consumption of fully halogenated CFCs at 1986 levels in mid-1989, followed by a 20% reduction in mid-1993, and an additional 30% reduction by mid-1998.

The Protocol negotiators developed these provisions with the understanding that they represented aggressive but achievable goals. Recognizing the difficulty of predicting the rate of development and adoption of alternatives, the negotiators also specified an assessment process for reviewing the provisions in the light of new developments in the science.

On the basis of today's information, we believe that the current provisions of the Montreal Protocol can be met, and that an additional step could be adopted to require total phaseout. If this is accomplished, only society as a whole can determine whether any of the aforementioned applications is so critical as to merit exemption from an ultimate phaseout.

Conclusion

It thus appears that, by building on growing international scientific consensus, policy-makers world-wide are in a position to act cooperatively, not unilaterally, in striving to effect a safe and orderly transition to alternative products.

Unless this transition is carefully planned on an international scale, significant social and commercial disruptions could occur.

DuPont continues to urge a global solution to the CFC-ozone issue, and remains committed to the Montreal Protocol as the most effective process for addressing the issue. Only a cooperative effort will ensure that the environment is protected for the benefit of future generations.

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The Mediterranean Blue Plan: Some Further Comments

I would like to congratulate this Journal on the publication of Michel Batisse's 'Guest Editorial'—opening this year's Spring issue—on the Mediterranean Blue Plan, which I have read with great interest. The Mediterranean is 'a universe in a nutshell'—a microcosm uniting along its shores societies in all stages of development, of different social and political ideologies, and of diverse cultures and races. To 'manage' the uses of the Mediterranean rationally requires the cooperation of the Economic Commissions of three continents—and yet, in spite of all the problems and difficulties besetting this process, regional cooperation in the Mediterranean seems more advanced than anywhere else (with the possible exception of the Baltic), and is serving as a model for other regions. In a new sense one might say, 'The medium is the message.' The very nature of the medium, the Mediterranean environment, forces nations to harmonize their interests and to cooperate. They can enjoy the Mediterranean together, or they cannot enjoy it at all: a lesson which our *political* macrocosm should in time learn from this microcosm.

The scenarios so clearly described and analysed by Dr Batisse, therefore, have a significance far transcending the boundaries (wherever these may be!) of the Mediterranean region. But allow me, please, to make a few comments, complementing this expert analysis:

1. Dr Batisse appears to accept uncritically the forecast of a significant, and harmful, increase in the use of fertilizers and pesticides required for increased agricultural production to feed the expanding human populations particularly on the southern and eastern shores of the Mediterranean. Yet such a linear projection might perhaps be misleading, for rapidly-progressing research in genetic manipulation and bioindustrial processes clearly points in the direction of *biological* rather than *chemical* systems of fertilization and pesticide over-use: pest-resistant, nitrogen-fixating crops, the sterilization of insects, and other new biotechnologies, may radically alter the environmental impact of agricultural production.

2. A similar argument could be advanced with regard to the environmental impact projection of *energy production*. This, too, is based on present-day technologies, and does not take sufficient account of the rapid pace of technological development. Dr Batisse does indeed deal with some of the 'alternative' energy sources—particularly solar and wind (tidal possibilities are not applicable in the Mediterranean because of the low tidal ranges); but he does not mention *waves*, which could be widely utilized for small-scale processes, or OTEC (ocean thermal energy conversion). This last could produce large quantities of energy, in the form of electricity or hydrogen, in the Mediterranean region, considering the depth of the water and the consid-

erable temperature differential between the cold bottom-water and the sunlit surface.

True, these technologies are still 'on the drawing board' (although OTEC* has already reached a near-industrial stage). Research and development could be considerably accelerated if they were to be carried out on a regional Mediterranean level, though about this *see* below.

3. The scenario on transport is somewhat narrow: limited to the environmental impact of the transport of oil and oil products. The Mediterranean transport system ought to be looked at *as a whole*, including tanker and pipeline transport. And here major changes are in the offing, with the Mediterranean again constituting a model—a pilot project for changes world-wide. If one wanted to describe these changes with one catch-phrase, this might be 'the decolonialization of traffic patterns and the application of the Third Industrial Revolution to shipping and navigation.' Lines of communication (and trade), world-wide, still move largely in the way they did during the age of colonialism: between colonies and their metropolises, or from one colony, *via* the metropolis, to another colony—not directly between colonies, *nor* between metropolises of different colonies. This pattern, today, is irrational and wasteful, and wasteful economic systems increase the pressures on the environment.

The ECE† has already initiated a study of traffic flows in the Mediterranean, seeking to redirect them through use of the most advanced electronic and other high technologies. UNCTAD** is initiating a study, complementing and enlarging the ECE study, through a cooperative effort of the three Economic Commissions of Europe, Africa, and Western Asia (ECE, ECA††, ECWA§). These studies will have to be taken into consideration for the assessment of the environmental impact of traffic in the Mediterranean.

4. The three 'guidelines', 'recommendations', or 'priorities', at the conclusion of Dr Batisse's Guest Editorial, are all sound and important. They accord well with those of the Report of the World Commission on Environment and Development—the so-called Brundtland Report.^o The latter, however, goes further than any other UN document known to us, in pointing to the *institutional implications* of

* OTEC = Ocean Thermal Energy Conversion.

† ECE = Economic Commission for Europe.

** UNCTAD = United Nations Conference on Trade and Development.

†† ECA = Economic Commission for Africa.

§ ECWA = Economic Commission for Western Asia.

^o *see*, for example, Dr Martin W. Holdgate's review occupying page 282 of our Autumn issue of last year.—Ed.