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STATEMENT DR. G.O.P. OBASI SECRETARY GENERAL - WHO

STATEMENT BY SECRETARY-GENERAL OF WMO, DR. G.O.P. OBASI, AT THE FIRST MEETING OF THE WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT (2 October 1984, Geneva)

Mme. Chairman,
Excellencies,
Distinguished members of the World Commission
on Environment and Development,
Ladies and Gentlemen,

It is a great pleasure for me to bring the goodwill message of the World Meteorological Organization to your Commission, and to take this opportunity to contribute to your outstanding and important work.

As you know, I have prepared a written statement for this occasion which - I believe - was distributed to all of you prior to this meeting. If you permit me, I will not strictly follow that written statement today. I have an important reason for that.

The same day that I mailed my written statement to your Secretary, on the 3rd of September, I received a small booklet from the World Resources Institute.

That booklet contained the conclusion of the "Global Possible Conference" which I am sure you all know of, and in which some of you even took part.

The Conference was held near Washington D.C. in early May 1984, with the participation of 75 leaders of science, government, industry and citizens' groups from 20 countries.

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The conclusions in the booklet which I mentioned, reflect a correct recognition of the most important environmental issues related to the atmosphere and climate. This therefore makes my task today relatively simple and straightforward. I will refer to some points in the statement of the Global Possible Conference and I will add a few of my own comments as time permits.

The statement of the Global Possible Conference contains a chapter under the title "The Background to Action". This chapter begins with the following - I quote:

"During the past decade we have come to recognize some simple but fundamental truths about our world. It is interconnected in intricate ways. Air, water, land and life form an interlocking system. Climate, shaping the fertility of the earth is governed by both atmosphere and ocean".

In another chapter of the statement it is stipulated that "acid rain, stratospheric ozone depletion and the greenhouse effect are the most serious transnational atmospheric problems".

I will offer my comments on these issues one by one. I will begin with the greenhouse effect, or in other words: with the problem of climate change.

The heart of this issue is that climate is a product of a range of interactive processes, in some of which - unfortunately - man has acquired the ability to interfere.

Meteorological researchers, during the last 10 years or so, through untiring development and testing of various sophisticated physical—mathematical models of the atmosphere on their computers, have concluded that man-induced increases in the concentration of atmospheric carbon dioxide could lead to substantial global warming of atmosphere within a few decades. They also gathered evidence that the cumulative effects on climate of other radiative active gases (such as osone, methane and various nitrogen oxides) may be of the same magnitude as that of carbon dioxide.

There remain, of course, vast gaps in our knowledge. There are substantial uncertainties both in the predicting of future \mathbf{CO}_2 concentration and in the model calculations. Even less is known about the possible regional distribution of temperature change and the possible changes in precipitation patterns that will result with the assumed concentration of \mathbf{CO}_2 in model studies.

Scientists firmly believe that these uncertainties will remain with us until we are able to obtain a more precise understanding of the <u>natural</u> climate system changes. Therefore, efforts are currently turned in the direction of CO₂ monitoring and basic research.

Another aspect of the climate issue that is closer to the direct concerns of your Commission, is the assessment of the social and economic impacts of potential climatic change and variability. To deal with this issue multi-disciplinary efforts are required. Countries must be assisted in incorporating provision for potential impacts of natural or man-made climatic changes in their planning procedures.

It is also crucial that arrangements be made to judiciously monitor some critical macro-indicators of the climate system (such as fluctuations in the desert margin sones, vegetation cover, land/sea ice, glaciers, aerosols, other pollutants, carbon dioxide concentration, solar variability, and geophysical parameters, including, for example, the earth's rotational changes, and volcanic eruptions). Based on such monitoring, simple and concise information on potentially disruptive climatic fluctuations will have to be made available to governments on a regular basis. The El Nino southern oscillation requires particular attention in this respect.

Mme. Chairman, ladies and gentlemen, I would now like to say a few words about the ozone issue. It is known to you that stratospheric ozone - which protects all forms of life on earth - might be seriously depleted through photo-chemical reactions with certain gases (such as chlorofluorocarbons) which are emitted by man to the atmosphere.

In dealing with the ozone issue, some progress has already been made. As you know, a proposed "Framework Convention to Protect the Ozone Layer" has already been drawn up and steps are being taken to forge an international agreement to control CFC emissions.

MHO has a substantial role to play in connexion with ozone. UNEP has designated WHO to act as the international lead agency for matters related to the physics and chemistry of the ozone layer. Certainly, your Commission will also be involved in some considerations on the ozone issue.

I would now like to address a different type of issue, in which the atmosphere plays a different role: the role of the carrier of environmental impacts.

Through the mechanisms of the general atmospheric circulation, various types of pollutants (gases, aerosols, and dust particles) may circumnavigate the globe within the time span of a few weeks. One of the resulting problems is acid rain. Industrial emission and the burning of fossil fuels are major sources of sulphur dioxide and other gases which are photochemically converted to acids and deposited on the earth where occasional rains wash them out. There is evidence that acid rain is causing damage to terrestrial and squatic biota and altering soil characteristics as well as eroding buildings and historical monuments. The issue is of international concern since acid rain at a particular location can be caused by the emission of pollutants into the atmosphere from far removed sources.

This brings us to the broader problem of transboundary pollution transport. Of course, acid rain is only one - although probably the most obvious aspect of transboundary pollution. The air carries many pollutants (other than sulphur dioxide and related compounds) and wash-out by rain is only one among the mechanisms through which pollutants can be deposited.

An even broader problem is the interchange of pollutants between the atmosphere and other media; for not only deposition takes place. The winds carry pollutants from the oceans and land surfaces up to the higher layers of the atmosphere. These pollutants may then be released elsewhere, but can also reside in the atmosphere for considerable time.

Having said this, I believe I have covered most of the issues which were explicitly mentioned in the statement of the Global Possible Conference. In addition to these issues, I would like to-mention, for instance, that on-going and planned weather modification activities raise the need for some research to assess possible environmental side effects. This is going to appear as an issue of considerable concern.

Also, there are some highly interdisciplinary issues, such as the interactions between climate, desertification, deforestration and soil erosion, or the possible climatic consequences of nuclear warfare.

Mme. Chairman, ladies and gentlemen, this completes the list of issues to which I intended to draw your attention. In my written statement you will also find some information on the activities of the World Meteorological Organization in the given areas. I do not wish to go further at this time since I understand that at this stage, your Commission wishes to obtain only an overview of problems, from among which you will later select a critical few for more detailed consideration.

It will be evident, I did not make any effort to dramatize any of the issues in my review since I do not think to do so would influence your Commission in its deliberations. You have surely already studied many gloomy reports and you must have acquired an excellent ability of screening these. The consequences of eventual climatic change (natural or man-induced), or the implications of the issue of acid rain hardly need further justification in order to receive recognition and the attention they deserve.

I would like, therefore, in conclusion, to assure you of WMO's readiness to provide you with any available scientific and technical material on these matters which you might wish to study more closely at a later stage of the important work of your Commission. I also have with me two colleagues who would be of assistance in our discussions, Dr. Zaitsev, D/RDP, and Dr. Potter, D/WCP.