

## PREFACE

Our biosphere, the only environment in the universe known to be hospitable to life, is under attack by many agents on many fronts. These agents have arisen, to a large degree, from human activities designed to meet the growing wants and needs of an expanding world population. Among the leading offenders are acid rains, acid smog, air pollutants, CO<sub>x</sub>, NO<sub>x</sub> and SO<sub>x</sub>, waste heat, oil spills, solid wastes, chemical wastes, non-biodegradable wastes and nuclear wastes. The effects of their actions are observable in the ongoing processes of acidification, deforestation, desertification, land erosion and rising oceans: poisoning the atmosphere, fouling the water supplies and causing other forms of environmental damage. The hazards to human health posed by a deteriorating environment are compounded by unsafe conditions in many factories and mines. Moreover, these hazardous conditions are found in every nation of the world, whatever its degree of industrialization.

The objective of the Miami International Symposium on the Biosphere was to provide a forum for the presentation of the latest research findings on the environmental effects of human activities. We wished to consider what is happening and what must be done — to reduce and eliminate harmful effects and to improve the environment and quality of life for all the inhabitants of our fragile planet. We felt it important, also, to bring together researchers and representatives of industry, government and academia, to promote the broadest possible perspective on these problems and to arrive at unified and optimal solutions.

This volume of proceedings presents the papers recommended by the session chairpersons and the keynote and luncheon banquet addresses. It is arranged in 16 chapters by subject. The reader should be advised that it was difficult to classify specifically some of the papers where there was an overlap in the subject matter. In such cases, we tried to make the best possible choice.

We hope that the proceedings of this conference, *The Biosphere: Problems and Solutions*, will serve not only to advance the present state of our knowledge and understanding of the biosphere, but also as the basis for thoughtful debate and positive action for the preservation of the planet earth.

T. Nejat Veziroğlu  
Editor