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**A message
to our 3½ billion
neighbours
on planet Earth**

S.O.S. ENVIRONMENT S.O.S.

A message to our 3.5 billion neighbours on planet earth from 2,200 environmental scientists

A message signed by 2,200 scientists from 23 countries, addressed to their "three and a half billion neighbours on planet earth", warning of the "unprecedented common danger" facing mankind, was handed to United Nations Secretary-General U Thant at a simple ceremony in New York on May 11, 1971.

To the six distinguished scientists who presented the message, (reproduced in full on these pages) the Secretary-General declared:

"I believe that mankind is at last aware of the fact that there is a delicate equilibrium of physical and biological phenomena on and around the earth which cannot be thoughtlessly disturbed as we race along the road of technological development... This global concern in the face of a grave common danger, which carries the seeds of extinction for the human species, may well prove to be the elusive force which can bind men together. The battle for human survival can only be won by all nations joining together in a concerted drive to preserve life on this planet."

Since it was originally drafted, at a meeting at Menton, in France, the "Menton Message" as it has come to be known, has been circulated among biologists and environmental scientists in Europe, North America, Africa, Asia and South America.

The meeting was convened by a new, voluntary, non-governmental, transnational peace movement known as "Dai Dong". Literally the name means "a world of the great togetherness", a concept which originated in pre-Confucian China more than 2,500 years ago.

Among the 2,200 signatories of the Menton Message are four Nobel Prize laureates (Salvador Luria, Jacques Monod, Albert Szent-Gyorgyi and George Wald), and such famous names from the world of science as Jean Rostand, Sir Julian Huxley, Thor Heyerdahl, Paul Ehrlich, Margaret Mead, René Dumont, Lord Ritchie-Calder, Shutaro Yamamoto, Gerardo Budowski, Enrique Beltran and Mohamed Zaki Barakat.

WIDELY separated though we are geographically, with very different cultures, languages, attitudes, political and religious loyalties, we are united in our time by an unprecedented common danger. This danger, of a nature and magnitude never before faced by man, is born of a confluence of several phenomena. Each of them would present us with almost unmanageable problems; together they present not only the probability of vast increases in human suffering in the immediate future, but the possibility of the extinction, or virtual extinction, of human life on Earth.

As biological and other environmental scientists, we do not speak to the feasibility of particular solutions to these problems, but out of our conviction that the problems exist, are global and interrelated, and that solutions can be found only if we abandon limited selfish interests to the realization of a common need.

THE PROBLEMS

● **Environmental Deterioration.** The quality of our environment is deteriorating at an unprecedented rate. It is more obvious in some parts of the world than in others, and in those areas public alarm has begun to express itself, while in other areas environmental deterioration seems a remote and irrelevant phenomenon.

But there is only one environment; what happens to a part affects the whole. The most widely recognized example of this process is the penetration into food-chains all over the world of poisonous substances such as mercury, lead, cadmium, DDT, and other chlorinated organic compounds, which have been found in the tissues of birds and other animals far removed from the origin of the poisons.

Oil spills, industrial refuse, and effluents of various kinds have adversely affected nearly all fresh and inshore waters around the world as have sewage and organic wastes released in amounts too great to be taken care of by the normal recycling processes of nature. Cities are overhung with heavy clouds of smog, and air-borne pollutants have killed trees hundreds of miles from their source.

Even more alarming are our continued and reckless ventures into new technological processes and projects (e.g., the supersonic transport and the planned proliferation of nuclear power plants) without a pause to consider their possible long-term effects on the environment.

● **Depletion of Natural Resources.** Although Earth and its resources are finite and in part exhaustible; industrial society is using up many of its non-renewable resources and mismanaging potentially renewable ones, and it exploits the resources of other countries without regard for the deprivation of present populations or the needs of future generations.

The Earth is already beginning to run short of some materials of critical importance to a technological society, and plans are being made to mine minerals from beneath the oceans. But such efforts not only will require vast expenditures of money and energy (and our energy-producing fuels are limited), but should not be undertaken before careful studies have been made of their probable effects on marine animal and plant life, also part of our natural resources and a source of high-protein food.

Almost all of the world's well-watered, fertile farmland is already in use. Yet each year, especially in industrialized nations, millions of acres of this land are taken out of cultivation for use as industrial sites, roads, parking lots, etc. Deforestation, damming of rivers, one-crop farming, uncontrolled use of pesticides and defoliants, strip-mining and other short-sighted or unproductive practices have contributed to an ecological imbalance that has already had catastrophic effects in some areas and over a long term may adversely affect the productivity of large sections of the world.

Even under the best of circumstances, the Earth could not provide resources in amounts sufficient to enable all people to live at the level of consumption enjoyed by the majority in the industrial societies, and the contrast between life styles dictated by extreme poverty and those permitted by affluence will continue to be a source of conflict and revolution.

● **Population, Overcrowding and Hunger.** The present population of Earth is estimated at 3,500 million people, and calculations, based on success of present population control programmes, put it at 6,500 million by the year 2000. There have been some optimistic predictions that technological and natural resources can be developed to feed, clothe and house far larger populations than this.

The immediate fact is, however, that as many as two-thirds of the world's present population are suffering from malnutrition and that the threat of large-scale famine is still with us despite some nutritional advances. Pollution and ecological disruption are already affecting some food sources, and frequently efforts to raise nutritional standards are themselves polluting.

Moreover, population figures are misleading, since they do not take into consideration the factor of consumption. It has been estimated that a child born in the United States today will consume during his lifetime at least twenty times as much as one born in India, and contribute about fifty times as much pollution to the environment. In terms of environmental impact, therefore, the most industrialized countries are also the most densely populated.

Man's need for space and a degree of solitude, though difficult to state in precise terms, is real and observable. We do not live by bread alone. Even if technology could produce enough synthetic food for all, overcrowding produced by ever-rising populations is likely to have disastrous social and ecological consequences.

● **War.** Throughout history there has been no human activity so universally condemned and so universally practised as war, and research on ever more destructive weaponry and methods of warfare has been unremitting.

Now that we have achieved the ultimate weapon and seen its potential, we have recoiled from its further use, but our fear has not kept us from filling our arsenals with enough nuclear warheads to wipe out all life on earth several times over, or from blind and heedless experiments, both in the laboratory and in the battlefield, with biological and chemical weapons. Nor has it kept us from engaging in "small" wars or aggressive actions that may lead to nuclear war.

Even if a final, major war is avoided, preparation for it uses up physical and human resources that ought to be spent in an effort to find ways of feeding and housing the world's deprived people and of saving and improving the environment.

It is clear that it is insufficient to attribute war to the natural belligerence of mankind when men have in fact succeeded in establishing at some points stable and relatively peaceful societies in limited geographical areas. In our time it is apparent that the dangers of global war focus at two points:

- the inequality that exists between industrialized and non-industrialized parts of the world, and the determination of millions of impoverished human beings to improve their lot;
- the competition for power and economic advantage among anarchic nation-states unwilling to relinquish selfish interests in order to create a more equitable society.

Stated thus, the problem seems almost insoluble. Yet mankind has demonstrated improbable resources of adaptability and resiliency in the past and perhaps facing what may well be the ultimate challenge to its survival, it will confound our fears once again.

WHAT CAN BE DONE ?

The preceding is only a partial listing of the problems that confront us and makes scarcely any attempt to describe their causes. We really do not know the full dimensions of either our problems or their solutions. We do know that Earth and all of its inhabitants are in trouble and that our problems will multiply if we do not attend to them.

In the 1940s, when it was decided to develop the atomic bomb, the United States appropriated 2,000 million dollars and brought experts from all over the world to do the job in two years. In the 1960s, preoccupied with the race to the moon, the United States spent between 20,000 and 40,000 million dollars to win the race, and both the Soviet Union and the U.S. continue to spend thousands of millions of dollars in space exploration.

Certainly massive research into the problems that threaten the survival of mankind deserves a higher priority than atomic or space research. It should be begun at once on a similar scale and with an even greater sense of urgency. Such research should be paid for by the industrial nations, which are not only financially best able to carry that burden, but themselves are the principal users of resources and the major polluters, but it should be carried out by qualified men from all countries and various professions, unfettered by restrictive nationalistic policies.

Because the crisis is so pressing, however, we urge that the following actions be taken even while research is going on. We do not offer these as panaceas, but as holding actions to keep our situation from deteriorating past the point of no return:

■ A moratorium on technological innovations the effects of which we cannot foretell and which are not essential to human survival. This would include new weapons systems, luxury transport, new and untested pesticides, the manufacture of new plastics, the establishment of vast new nuclear power projects, etc. It would also include ecologically unresearched engineering projects—the damming of great rivers, "reclamation" of jungle land, undersea mining projects, etc.

■ The application of existing pollution-control technology to the generation of energy and to industry generally, large-scale recycling of materials in order to slow down the exhaustion of resources, and the rapid establishment of international agreements on environmental quality, subject to review as environmental needs become more fully known.

■ Intensified programmes in all regions of the world to curb population growth, with full regard for the necessity of accomplishing this without abrogation of civil rights. It is important that these programmes should be accompanied by a decrease in the level of consumption by privileged classes, and that a more equitable distribution of food and other goods among all people be developed.

■ Regardless of the difficulty of achieving agreements, nations must find a way to abolish war, to defuse their nuclear armaments, and to destroy their chemical and biological weapons. The consequences of a global war would be immediate and irreversible, and it is therefore also the responsibility of individuals and groups to refuse to participate in research or processes that might, if used, result in the extermination of the human species.

Earth, which has seemed so large, must now be seen in its smallness. We live in a closed system, absolutely dependent on Earth and on each other for our lives and those of succeeding generations. The many things that divide us are therefore of infinitely less importance than the interdependence and danger that unite us.

We believe that it is literally true that only by transcending our divisions will men be able to keep Earth as their home. Solutions to the actual problems of pollution, hunger, overpopulation and war may be simpler to find than the formula for the common effort through which the search for solutions must occur, but we must make a beginning. ■

