

## EDITORIAL

### Our World Menaced\*

It is an incontrovertible fact, which is clear to enlightened globalists but not yet to the world's general public—who should surely be warned—that our world is threatened by a whole array of circumstances which are due basically to human overpopulation, and are becoming more and more menacing as time goes on. Let me survey up to a score of such threats that come easily to mind—without the wide *ad hoc* reading and depth of thought which the topic really deserves—in the order in which they enter my head, while asking for others if readers would kindly let me know of any further candidates:

1. *Nuclear warfare, 'winter', and accidents*: the present insane buildup of capability to destroy, even many times over and 'in the twinkling of an eye', our living world as it has developed through some 3,500 million years, though possibly leaving some biota alive in secluded places such as deep ocean troughs.

2. *Destruction of the stratospheric ozone shield*,† without which life could scarcely have developed, and whose thinning appears already to be leading to increased skin-cancers among humans. Meanwhile we can foresee trouble in any case from the fact that chlorofluorocarbons, certain of which appear to be the worst 'villains of the piece', take some ten years to reach the stratosphere. We could stop manufacturing such threats now but seem unable to make up our minds in view of vested interests.

3. *The so-called 'greenhouse effect'* of warming of our atmosphere due to the ever-increasing buildup of carbon dioxide, methane, and other trace-gases—leading to such increases in surface temperatures that, for example, some models suggest that practically the whole of the cereal-producing belt of North America could become agriculturally non-productive by around the end of the next century. Moreover sea-level rises, due to such causes as expansion with heat and melting of ice-caps and glaciers, could lead to further enormous losses of prime agricultural and other land (as indicated separately below in No. 10).

4. *Deforestation*, especially in the tropics, which could change the environment not only of our immediate living but also climatically in unknown ways, while leading to the inevitable extinction of a considerable proportion of the world's plant and animal species and gene-pools.

5. *Devegetation and desertification*: ever-advancing scourges which go hand-in-hand with erosion and pollution, as more and more people remove more and more of Earth's green mantle and less and less remains—with, incidentally, less and less land-capacity to feed the teeming thousands of millions of the human species and support its fantastic actual and ancillary (of domestic etc. animals) biomass. This is Earth's No. 1 megaproblem according to our No. 1 UN environmentalist colleague.\*\*

6. *Human population and its pandominance*, with ever-increasing numbers and effects (even widely *per caput*), is central to, and the prime perpetrator of, the preceding and following 'conceivable ecodisasters'—such that the only hope would seem to lie in its future limitation, especially in 'developing countries'.

7. *Widespread excessive pollutions*—on land and of both fresh and salt waters, of the atmosphere and now the stratosphere—we are at last all becoming familiar with through the media reporting such sudden shocks as occurred at Bhopal and Chernobyl, and, according to the World Bank,†† are expected to increase in numbers and incidence in future.

8. *Depletion of important raw-materials* is inevitable if present trends continue, but fortunately the human species is endowed with unique brainpower and capability of invention and innovation, so that we can be reasonably confident on this score, one feels—provided we prove able to withstand major changes as and if our world goes on.

9. *Insufficiency of agricultural land* to feed the world's ever-increasing human population together with its domestic creatures and even pets when the areas of agricultural productivity are becoming ever-reduced by desertification, erosion, and numerous other scourges—including coverage by more and more roads, runways, playgrounds, and industrial and other structures as well as human habitations. One even wonders about the supply ultimately of oxygen to the atmosphere, as it is almost solely by plants.

10. *Sea-level rising with coastal and hinterland flooding* is also predicted to do away with much prime agricultural land in future, with the warming through the greenhouse effect melting more and more of the polar ice-caps and continental glaciers—witness the paper published on pages 129–33 of this issue of *Environmental Conservation*, on the Caribbean Coast of the United States. River deltas are particularly productive and vulnerable.

\* Taken in part from the writer's 'Statement of Acceptance of the International Sasakawa Environment Prize, 1987, on the occasion of the World Environment Day (June 5) Celebrations at UNEP Headquarters [outside] Nairobi, Kenya'.

† See the Guest Comment by Professor Hans U. Dütsch on pp. 95–7 of this issue.

\*\* See his comment in the penultimate paragraph on the preceding page.

†† See, for example, their Proposal to Establish an International Fund for Research on the Prevention or Mitigation of Major Accidents, by Dr James A. Lee, Director of Environmental and Scientific Affairs, to be published in our next issue.

11. *Increasing mental instability, crime, and human strife*, which seem to be accompanied by increased covetousness of the parts of the world's ever-more-subdivided 'cake', are deplorable and alarming, and could lead (through friction or mere mistake, etc.) to upheavals which conceivably could include nuclear conflagration on the most devastating scale. The aura of religious awe and concomitant self-discipline to which we humans were widely raised until a few decades ago, seems to have vanished but not yet been replaced by something more scientifically credible.

12. *Over-dependence on machines and mechanical devices* seems to be another grave danger and, coupled with breakdown of communications, could lead to major local, and conceivably global (for example through starting nuclear war), devastation. Meanwhile an eminent critic believes that 'The problem of over-dependence on mechanical devices will be reduced after some time and a further number of serious accidents'.

13. *Major human epidemics* (such as of AIDS), ruination of major crops, or general death of forests, could, quite conceivably, lead to such widespread drastic changes that the world as we know it might have grave problems in making the adjustments necessary for its own survival.

14. *Dangers of genetic manipulation creating uncontrollable monsters or pathogens*: with such actualities as the utter insanity of current nuclear weapons' buildup, there seems no limit to Man's foolishness in 'playing with fire', and so to us conceivable that his mere curiosity might lead to one or both of these horrors—even without any mal-intent, or something much worse with it.

15. *Acidification and salinization* seem between them to affect very adversely a large and ever-increasing proportion of the world's existing or former agricultural lands, *inter alia* as a function of human population-growth and despite all efforts at amelioration. This leads to intensification of the megaproblems already indicated in Nos 5 and 9 above.

16. *Eutrophication or over-rich growths*—especially of Algae in fresh waters and swamps, with depletion of oxygen and consequently of animal populations, pollution of ground-waters, and attendant problems for human use as well as enjoyment—seems to be increasing, with more and more over-use and -fertilization as human populations increase and, with them, the intensity of agriculture.

17. *Garbage and other wastes' disposal* is creating more and more problems as the former piles up and the latter threatens fresh waters through burial-soils, while nuclear wastes create an increasing hazard. 'The New York garbage scow that cannot find a home for its cargo' in any country visited during its long voyage of search has become a symbol of the problem of solid-waste disposal, for which efficient recycling would seem to provide a large part of the answer, and incineration to generate steam for electricity could contribute much of the remainder. Solution of other problems would be helped by widespread 'night-soil' fertilization.

18. *Militarism and personal intolerance*, of which the former is commonly inexcusable and the latter often engendered by the frustrations of overcrowding and concomitant enmity resultant on covetousness, seem to go hand-in-hand with increasing human populations—to the extent that one could foresee nuclear holocaust as a possible outcome. To the only double Nobel prizewinner of our acquaintance (one of them for Peace), militarism is the worst danger of all.

Although the above eighteen do not quite reach our guessed total of twenty grave menaces to the world and some parts could be combined, we may be 'consoled' that three of them are at least double, while there are probably more to add—e.g. by correspondence, if readers or others would be kind enough to advise us of further 'candidates'.

To examine in some detail the above and any further emerging threats to our world, we hope to hold our Fourth International Conference on Environmental Future—probably in 1989, if a suitable host country and sufficient financing are forthcoming. Meanwhile our small Third such Conference\*, which we would like to acknowledge again warmly has been greatly helped by the Sasakawa Prize as well as private donors, is to be held in Edinburgh, Scotland, during 24–26 September 1987. It is designed to be *inter alia* a useful lead-in to the expectably much larger 4th ICEF, on the theme of Threats to The Biosphere.

NICHOLAS POLUNIN

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\* See the Programme published on page 128 of this issue.