

## GUEST EDITORIAL

### International Year of No Child?

This year, 1979, has been designated by the United Nations as the 'International Year of the Child'. Its objective is to focus world-wide attention on the rights and needs of children and to stimulate greater efforts to satisfy those rights and needs. Although children literally are the future of humanity, they nevertheless often do not receive the care that such a vital investment deserves. Indeed, they usually are the first and most severe victims of poverty, famine, disease, or disaster. Twenty years ago, the United Nations declared that every child should have the right:

- to affection, love, and understanding;
- to adequate nutrition and medical care;
- to free education;
- to full opportunity for play and recreation;
- to a name and nationality;
- to special care, if handicapped;
- to be among the first to receive relief in times of disaster;
- to learn to be a useful member of society and to develop individual abilities;
- to be brought up in a spirit of peace and universal brotherhood; and
- to enjoy these rights—regardless of race, colour, sex, religion, national, or social origin.

Unfortunately, we can think of no society or nation today that provides all of these essentially basic rights to all the children within it. A few countries may come close to this ideal, but the majority fall woefully short—including many that have abundant resources to provide for their sons and daughters.

In most poor countries, especially for the poorest one-third of the population, the U.N.'s list of rights is little more than a joke—a sick one at that. How much love, affection, and understanding, can hungry, overworked, half-sick, parents offer to their children? Even if it is more than one might expect, can that compensate for lack of food? Love may not be measurable, but the adequacy of nutrition is. It is well known that at least 500 million human beings—most of them under five years old—are chronically underfed. Moreover, hundreds of millions of people lack even simple sanitation; could medical care, if it were available, do much for them?

For the children of the poor, education is on-the-job training. As soon as they are able, they work in the fields or scramble for coins in the city's streets. Recreation is an unknown luxury, while being handicapped may even be an advantage in a beggar's economy. What is the point of a child's developing skills and talents if no job awaits him or her on attaining maturity? Peace and brotherhood? Constant struggle and prejudice are facts of life for the world's poor.

Despite its idealism, the U.N.'s list of rights seems to us incomplete. We would add at least one more which really is a prerequisite to many of the others and we hope is no more unrealistic: *the right to a decent, healthy environment, now and in the future*. This includes not only a healthy environment in the public-health sense (clean, safe water, sanitation services, adequate clothing and shelter, freedom from pollution, etc.) but a share in the widely unappreciated benefits that society derives from healthy, natural ecological systems and well-maintained agro-ecosystems. Among the oft-forgotten services performed by natural ecosystems are watershed protection, which results in relatively stable weather and control of floods and drought; control of most potential predators of crops and vectors of disease; cycling of nutrients, including those essential for agricultural productivity; disposal of human wastes; production and preservation of soils; maintenance of the quality of the atmosphere; provision of fishes from the sea; and the operation of a vast genetic 'library' of potentially useful plants and animals.

A major obstacle to turning all these ideas into something approaching reality for all (or even most) of the world's children is that there are so many of the latter. Today there are over fifteen hundred million children under the age of fifteen—some 36% of the total human population. Over 120 million babies will be born this year—as in other recent years—only partially compensated by the nearly 100 millions who will 'graduate' to age fifteen, and the 15 or so million children who will die this year—many of them because of malnutrition. And the global population will increase once again by roughly 70 millions, putting still greater stress on Earth's ecosystems, agricultural productivity, and other resources.

What hope for a decent, productive, and fulfilling life can be offered to a child born in 1979? If she (we will suppose the child is a girl) lives a full life-span of 70 or more years, that child may see a doubling or more of the world's human population. (If present rates continued, she might well witness more than a tripling. We very seriously doubt the likelihood of that, however, because rising death-rates are more likely, especially if birth-rates are not drastically curbed in the next generation.)\*

Long before middle-age, our hypothetical 1979 baby will have seen the destruction of much, perhaps most, of the remaining natural areas on Earth. Most of the tropical forests will have been decimated; today these are huge store-houses of genetic diversity, containing numberless species not yet even described. Among them are unquestionably many treasures of great potential value to humanity that will be permanently lost before they can even be discovered. Temperate forests will still exist, but rarely in anything like their natural state. In effect they will have been replaced by tree farms. Natural savannas and grasslands will go the way of the forests, being converted wherever possible to

\*See the Guest Editorial, 'Eight Thousand Million People by the Year 2010?', by Professors Paul R. Ehrlich & John P. Holdren, which we published in 1975 (*Environmental Conservation*, Vol. 2, No. 4, pp. 241–2, Winter 1975), and for the reprinting of which in other journals we have been privileged to give the necessary permission.—Ed.

agriculture to support the expanding human population. In many areas, the agricultural phase may be only temporary—a momentary pause on the way to becoming desert.

Our 1979 baby therefore will probably see accelerating environmental destruction, accompanied by local ecological collapses and local or regional climatic changes, with attendant impacts on agricultural production. Such symptoms as an increasing frequency of floods, droughts, pest outbreaks, and crop failures, can be expected. Moreover, famine will lurk not far behind, unless unaffected areas are far more successful at raising food production (and distributing relief supplies) than most current forecasts anticipate.

Even before reaching adulthood, the 1979 baby will witness far-reaching changes in the way of life of her society, regardless of birthplace. If she is born in a rich country such as the U.K., the U.S., or Japan, supply shortages of various kinds may be commonplace. Food, energy, and various materials, will be more costly, and a transition to a quite different energy economy from today's will be already well under way. Let us suppose that the shift from heavy dependence on oil is towards 'hard' energy technologies such as nuclear power and high-technology applications for lower-grade fossil fuels. If that happens, society is likely to become far more regulated and regimented, and the probability of nuclear war will have become considerably greater than it is today (which is hardly negligible). If, on the other hand, the shift is towards what may be called the 'soft path', emphasizing solar and other renewable sources, the inevitable social changes should be much more benign—at least to people who prize personal liberty.

Considerable environmental impact inevitably results from mobilization and use of energy from any source, but the problems caused by the 'hard' path seem generally more intractable than those of the 'soft' path. Much will depend on the extent to which *per caput* energy use by the rich countries expands. Our 1979 baby might well (but need not) see a doubling of energy use per person before her 21st birthday. The environmental impact of such a huge increase would make today's energy-related pollution and destruction of ecosystems seem almost trifling in comparison—especially as the transition to either the soft- or the hard-energy path will inevitably be marked by intensive use of coal.

The changes that our hypothetical child will observe in over-developed countries (ODCs) during the next generation or two are likely to be more directly traceable to increases in material consumption than to increases in population. But the rich quarter of the world's population today accounts for far more than its share of destructive impact on Earth's life-support systems; and, because the rich control most of the world's commerce, affairs are arranged so that pollution and the consequences of ecosystem destruction are borne disproportionately by the poor three-quarters rather than by the rich beneficiaries of the destructive activities. Even though the populations of the industrialized nations are growing relatively slowly, continued rapid growth in material consumption per person almost certainly will ensure that the outrageously disproportionate impact of the rich will be maintained, even as they become a smaller fraction of the total population. Moreover, by coopting resources to themselves, the powerful ODCs may effectively prevent, or at least hinder, development efforts in poor countries.

Suppose our 1979 child is born in a less-developed country (as most of them will be), her society is likely to be even more profoundly and unpleasantly changed over the next generation or two than that of an ODC child. Even if the baby is born as one of the lucky few in an affluent class within a poor country, she will have to face the psychological problems of rapid social change. The very process of modernization (which usually entails phenomenally rapid urbanization) inevitably causes changes in social structure at virtually every level—ranging from government leadership to the village and even the family. Assuming she is affected by such 'modernization' and, in particular, is given access to education, our 1979 baby, being a girl, may well lead a more radically different life from her mother's than her brother's will be from his father's.

Most poor nations, however, will find it impossible even to maintain today's unsatisfactory average standard of living in the face of population growth that will predictably double their populations by 2010 or so. Such growth will increasingly overstrain the ability of even relatively well-endowed less-developed countries to keep pace in food production and cope with the increased social and economic stresses that will inevitably accompany population growth of such rapidity and magnitude. Many countries will not succeed in these respects. A baby born in 1979 to a poor family in a poor country may accordingly have little to look forward to but even starker poverty than her parents endured, and the bleakest of futures for her own children—if she survives childhood herself.

A child born in 1979 is not likely to have an easy life under any circumstances. Even the more fortunate ones will face an uncertain—at the best, challenging—future, and many hard decisions. The chances for all 1979 children to lead a good life, of course, would be considerably enhanced if there were far fewer than 120 millions of them. In order to brighten the prospects for those fifteen hundred million children already living, the greatest gift that the United Nations could ask for the world would be of *no* births in 1979.

PAUL R. EHRLICH,  
Bing Professor of Population Studies,  
Department of Biological Sciences,  
Stanford University,  
Stanford,  
California 94305, U.S.A.

&

ANNE H. EHRLICH,  
Senior Research Associate,  
Department of Biological Sciences,  
Stanford University,  
Stanford,  
California 94305, U.S.A.