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## Perspective – Environment, Energy, Economic Equity: Can the World Balance these Vital Elements?

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# *PERSPECTIVE*

## ENVIRONMENT, ENERGY, ECONOMIC EQUITY: CAN THE WORLD BALANCE THESE VITAL ELEMENTS?

### I. INTRODUCTION

Only a few years ago, it was widely assumed by the American public that the United States had uncovered the secret of endless economic growth and human progress. We believed that we had learned how to perform the economic version of the miracle of the loaves and fishes. America, in partnership with the other industrialized nations, would lead the poorer nations to prosperity at no real cost to ourselves. We felt we were entering a new age of affluence, and we rejoiced.

Our illusions have been rudely dispelled. We are still wrestling with the age-old problem of trying to reconcile very limited supplies of resources with relatively unlimited human demands. The industrial nations are struggling to achieve adequate rates of real economic growth and to increase their standards of living. With growing impatience, the developing nations insist upon an ample and equitable share of the world's wealth. The majority of the world's population is still poor, and the ancient scourges of mankind—famine, privation, and pestilence—remain their daily lot.

This may appear too stark and simple a summation of how things stand in the world. Yet, two recent events emphatically underscore its accuracy—the discussions of the Oil Producing and Exporting Countries (OPEC) about oil prices, and the talks between the so-called “have” and “have not” nations at the Paris Conference on International Economic Cooperation (CIEC) about ways of narrowing the gap between the two. Once again, world events have demonstrated the urgent need for energy conservation and the pressing importance of reducing environmental pollution and waste.

## II. THE URGENCY OF ENERGY CONSERVATION

The OPEC discussions serve as an unfortunate reminder of our failure, in the years since the Arab embargo, to reduce our dependence upon imported oil and, indeed, of our failure to comprehend what the crisis was all about. Since 1973, the year of the embargo, U.S. oil imports have risen from 29% to more than 40%. Before the embargo, Arab oil accounted for only 15% of our oil imports; today, it accounts for more than 33%. In seeking reasons for this increased dependence, we need look no further than the recent report of the International Energy Agency (IEA), a group of 19 industrial, oil-importing nations organized by the U.S., which ranked the U.S. conservation record as one of the worst among its members. Another report, this by the U.S. Bureau of Mines, projects that by the end of this century, Americans will consume 84% more energy than they did in 1974. In addition, because of waste and inefficiency, more than twice as much energy, some 223% more, will be required to deliver that 84% increase in direct energy consumption.

It is tempting to look for a scapegoat for this situation, to point the finger of blame at the Congress, or the Administration, or industry. But the truth is that we are all to blame. The growing imbalance between energy supply and demand is the result, pure and simple, of a disastrous failure of national will.

In transportation, the United States consumes more than three times the energy per capita consumed by other countries such as Germany, Sweden, and Japan. Our cars consume twice as much energy per passenger mile as do British cars. Our industrial consumption of energy per employee is two and a half times that of West Germany; and we use some 50% to 60% more energy per product ton than does West Germany. These figures illustrate our waste and inefficiency in energy use as compared with other industrial countries whose standards of living, as measured by per capita income and Gross Domestic Product (GDP), are comparable to ours.

Our energy difficulties do not result from the fact that we have run short of supply, but rather from the fact that we consume so much energy in wasteful ways. As long as we waste energy, then no matter how fast we run, we inevitably lose ground in our efforts to keep supply in step with demand. Energy conservation is not, therefore, mainly a matter of sacrifice and self-denial, of giving up and going without — although it can be that too. Instead, it is primarily a matter of using energy in the most efficient and economical ways possible; a matter of trying to make the most out of the energy we

consume, thereby cutting the high and rising economic and environmental costs of energy waste.

Nor can energy conservation be simply a secondary or supportive element in a national energy policy. It must be the keystone and the fundamental basis of that policy. We should not look to energy conservation as a means of filling the gap after all efforts to improve supplies have been exhausted; that is, as a last resort. On the contrary, we should first work on developing and implementing an optimum energy conservation policy, one that is consistent with a healthy economy, and *then* decide on the amounts and the kinds of new energy supplies. This fundamental shift of emphasis is vitally important to the effective reordering of our energy priorities. By taking serious steps to cut waste and increase efficiency in our use of energy, we could achieve sizable reductions in U.S. energy consumption, while at the same time reducing pollution, lowering capital requirements for energy production, and raising employment. The IEA report mentioned earlier, notes that:

Most careful studies indicate that investments required to achieve energy savings will have a higher return on investment and thus a more positive effect on GDP growth and employment than many of the supply expansion alternatives being considered in IEA countries. This makes conservation a cheaper alternative to domestic energy production. In addition, most conservation investments have positive side effects on the environment. . . .

I stress energy conservation because I believe that no other single step can do more to alleviate our energy, environmental, and economic difficulties. No single step can do more to strengthen the credibility and clout of the United States in dealing with other nations. A nation insistent upon indulging its taste for larger automobiles in the midst of global shortages of energy and natural resources will command little international respect on these issues and, perhaps, will forfeit its own self-respect at home.

I would suggest that the economic strength and stability of the Western industrial world depends heavily upon the success of the United States in putting its own economic house in order. That success, in turn, must center around a systematic and sustained effort toward energy conservation. The discussions among the OPEC nations and between the "have" and "have not" nations demonstrate that wealthy nations cannot go on living beyond their means while the majority of mankind scratches and scrambles for mere survival.

Ensuring the necessities of life for billions more human beings, achieving the equitable allocation of the world's limited resources, and assuring the long-term health of the earth's natural systems upon which all human life and activity ultimately depend — these must be the overriding concerns of domestic policies and international relations for the remainder of this century.

### III. THE ENVIRONMENTAL CONCERN

The United States has exerted exemplary leadership in addressing one of these concerns, the need to ensure the long-term health of the environment. We have viewed international cooperation as a global extension of our own strong, domestic commitment to environmental progress. We have established formal bilateral environmental programs with, among others, Japan, West Germany, Canada, and the Soviet Union. We conduct a technical exchange program with Mexico, provide technical assistance to Iran, and maintain informal contacts with a number of other countries. We are conducting environmental research projects in both Egypt and Yugoslavia.

The U.S. - U.S.S.R. environmental agreement represents our most extensive bilateral program; it includes about 39 major cooperative efforts in areas ranging from marine pollution to earthquake prediction. In November, 1976, I signed a U.S. - U.S.S.R. convention for the protection of migratory birds, a matter of importance in the Pacific area. This convention will help protect birds such as snow geese, which winter in California, yet have their breeding grounds in Siberia.

The NATO Committee on the Challenges of a Modern Society has, over the seven years of its existence, undertaken an extensive range of environmental projects in which the United States has played an important role. The United States has also been prominent in other important international agreements and efforts, such as the Endangered Species Convention, the Ocean Dumping Convention, and the International Convention for the Prevention of Pollution from Ships. Thus, productive international environmental activity is underway and, among all the nations of the world, the United States has been the leader in this activity.

There are, however, several critical global environmental problems before us that we have barely begun to address: the dangerous reduction of atmospheric ozone by fluorocarbons, the pollution of our oceans, the spread of toxic substances throughout the world, and

the problem of massive ecological degradation in the developing world.

### *Fluorocarbons and Toxic Substances*

Unilateral efforts to reduce fluorocarbon emissions must prove relatively ineffectual. The global impact of these emissions, and the global interest in reducing them, requires that we rely on something more than the voluntary and isolated actions of the various nations. We need concerted action by the world community as a whole.

The United States is taking action to phase out non-essential uses of fluorocarbons. Last year, in Brussels, I urged other nations that are major users and producers of fluorocarbons to make similar commitments. I also suggested that we seriously consider the possibility of an international convention to guide and govern the regulation of the entire range of hazardous chemicals, such as polychlorinated biphenyls (PCBs) and fluorocarbons, whose presence and impact cannot be confined within national boundaries. During my European talks, I became increasingly aware of the competitive impediments to unilateral action on such matters by nations whose trade and commerce are so intimately interwoven. An international convention, similar to the Ocean Dumping Convention, requiring the existence of a regulatory process on the part of signatory governments could help reduce this barrier to the effective control of chemical pollutants.

### *The Oceans*

The world's oceans remain an area of acute environmental concern. It is by now commonplace to observe that marine pollution knows no national boundaries and that effective international controls on all sources of marine pollution need to be developed and implemented. Similarly, it is commonplace to lament the historic role of the oceans as mankind's "ultimate sink." On the international scene, we have witnessed a rather remarkable proliferation of treaties and cooperative ventures designed to protect the marine environment; nevertheless, the marine pollution crisis has not been adequately dealt with by the community of nations. Existing international controls have been developed by a shotgun approach. Clearly, there should be an international rule against the ocean dumping of mercuric compounds, and there is. But scattered rules of limited scope, applicability, and acceptance, hardly engender confidence that the global, systematic contamination of the oceans

will be abated. It is high time that we adopt a comprehensive total budget approach to the problem of marine pollution.

Unfortunately, we seem to have no plans or prospects for doing so. Against the background of appalling ignorance concerning the fate and effects of pollutants in the marine environment, there is a proliferation of organizational structures so complex that it beggars the imagination. At last count there were some 300 international organizations claiming some mandate to consider the scientific aspects of marine pollution. And while there were high hopes that the Law of the Sea Conference would take us a long way toward fully addressing the problem of marine pollution, that effort appears to have foundered on the fact that nations continue to regard the seas as their own "territory" or "resource" ripe for exploitation.

The current Conference text concerning marine pollution reflects, in my view, two main principles. The first is that all nations have an obligation, in the most general terms, to protect the marine environment. The second is that port and coastal states currently possess limited rule-making power to interfere with maritime interests. It is unfortunate that the Conference has been unable to address environmental problems in more specific terms. For example, the Conference's emphasis on preserving "freedom of navigation" has diverted attention from the more pressing need for international agreement on specific actions to protect the oceans, a purpose which is perfectly compatible with navigational interests. In short, the Law of the Sea negotiations have been disappointing. As they now stand, they represent a lost opportunity to establish the institutional mechanisms and international norms necessary to protect the integrity of our oceans.

I do not mean to suggest that the oceans are doomed. Perhaps for the first time in human history we are developing radically new patterns of thought to comprehend and cope with environmental problems of vast scope and complexity. The problems posed by the threats to the oceans demand a new order of decisions concerning costs and benefits to ourselves, to our neighbors, and to posterity. Human beings and human institutions have never before had to make such far reaching decisions. Now they must.

In the past I have argued for the development of new international institutions with decision-making power. The international system is filled with agencies whose activities are largely discursive, and whose roles are entirely advisory. Now, we need international institutions which can set rules and standards and enforce them. We also need effective institutions for global monitoring and assessment to

give us an earlier understanding of adverse environmental impacts and to enable us to weigh apparent short-term gains against real long-term costs.

### *Nuclear Proliferation*

The world is increasingly turning to nuclear power in the face of fossil fuel shortages and growing demand for energy. At least twenty-eight countries have or are building nuclear power reactors which can also produce the explosive material for atomic bombs. At the present rate of consumption, stocks of useable uranium will be exhausted within a few decades. The reprocessing of plutonium from radioactive wastes could, of course, give us ample supplies of nuclear fuel. Yet the advent of a plutonium economy would present waste disposal problems of staggering proportions, and would vastly increase the possibility of nuclear blackmail or outright attack. The United States, more than any other nation, must exercise strong and constructive leadership in dealing with this problem.

One of the most important things we can do in this regard is to get serious about energy conservation so that we are not forced, by our own profligacy, to rush into an irrevocable and massive commitment to nuclear power. This is also one of the most effective ways by which we can lessen the pressure on other countries to turn to nuclear power. There is a good deal of substance to the observation of Philip Abelson, editor of *Science* magazine and head of the Carnegie Institution, that: "Neither by deed nor by example has the United States provided the world with any alternative but to go nuclear."

### *The Needs of the Developing World*

The first thing the industrialized world, and particularly the United States can do for the developing nations is to put our own energy, environmental, and economic houses in order. The second thing we can do is to encourage and help the developing nations, in every way possible, gradually to build up their own capacities to meet their people's needs while simultaneously conserving their nonrenewable natural resources.

As one observer has put it, "in some important ways the poor are damaging the environment even more than the rich." The widespread ecological damage and environmental degradation taking place in the developing countries has been well documented. What should be understood is that much of this devastation has occurred,



not because of development, but because of a *lack of development*. This depletion and despoilation of natural resources and environment in the developing world has the same source as their exploding population rates — the desperate attempt by the poor to stay alive and to stave off disaster. In many countries the poor literally consume today the capacity of the land to support them tomorrow. A day-to-day, hand-to-mouth existence only feeds and fuels unsupported rates of population growth and the rapid depletion of resources which are essential to long-term survival and growth.

Under the influence of those in the industrialized world who insist on equating environmental damage with healthy “growth,” leaders of the developing nations have tended to regard national development and the safeguarding of natural resources as mutually exclusive. This is, indeed, unfortunate. Development of the kind that assures the poor of a good diet, clean water, decent health, and a productive job is the kind of development most likely to convince the poor that their survival no longer depends upon having unlimited numbers of children or upon the ruinous exploitation of natural resources.

#### *Food, Water, and Appropriate Technology*

Our efforts to aid the developing nations must increasingly center upon the development, for and by the poor of the world, of their own supplies of food and water, and of their own sources of productive employment based upon the wise and prudent use of their natural resources.

Shortages of good food and clean water lead to rampant population growth and other human distresses, and environmental damages within the developing countries. According to a recent study by the World Bank, some two-thirds of the populations in the less developed countries of Asia, Africa, Central and South America, and the Middle East suffer from malnutrition. It does not require any great act of imagination to understand how this condition of acute and chronic hunger can sap the energy of these people, render them extremely susceptible to disease, and almost require them to live off the land and have large families. It has become overwhelmingly clear that the food to feed these hungry and starving poor must come, not from the granaries of North America, but from their own earth and efforts. Outside aid can have no more important and urgent aim than to help them develop an agriculture that is both strong and sustainable.

Providing adequate supplies of safe water has been called "the most important single factor for improving the well-being of the world's poor majority." Approximately 40% of the human race does not have adequate access to safe water. Waterborne diseases daily kill an estimated 25,000 people. According to one estimate, schistosomiasis and filariasis, the world's largest cause of blindness, affect some 450 million people in more than 70 nations. In many cities in the developing world, 60% of the children die of infantile gastritis before they are five. These and other waterborne diseases, such as cholera, typhoid and dysentery, are the main cause of infant mortality in the developing countries and, together with malnutrition, the main cause of low adult resistance to disease and early death. Accordingly, the United Nations Habitat Conference has approved as a goal for the world community the provision of clean water to all human settlements by 1990.

If we can ensure a systematic, sustained, and skilled investment in food production and clean water in the developing countries, we will go a long way toward improving the lot of the poor majority of the world, thereby reducing their rate of population growth and their consumption of essential and irreplaceable natural resources. This will not be an easy task. Indeed, it will require real changes in the policies and priorities of the developing countries themselves as well as in their internal structures and institutions.

But we are at least beginning to move in the right direction. Three years ago, Congress amended the Foreign Assistance Act to require that, to the degree possible, foreign aid be directed toward the poor populace of the developing countries and be concentrated in three principal areas — food and nutrition, population and health, and education and human resources development. In 1975, Congress authorized a total of \$20 million to expand and coordinate private efforts at promoting the development and dissemination of technologies appropriate for developing countries — technologies that are often, although not always, relatively small-scale, simple, and well-suited to the skills and circumstances of the particular locale. The U.S. AID Agency is in the process of setting up a private, non-profit "Appropriate Technology Fund" to support a private effort along these lines.

We should now realize that our past emphasis upon aid to developing nations through large-scale, capital- and energy-intensive technologies may well have been misplaced. With social structures, as with physical structures, we must build from the ground up, not from the top down — we must start where the people are with

whatever resources, skills, and implements they have. Most developing nations are endowed mainly with people. The developments that will most help these human beings are the kinds that feature techniques and technologies that employ these people as the agents of their own development.

I do not believe that this change will lead to any sudden or sweeping improvement in the lot of the world's poor. I do believe that the growing emphasis upon "people-oriented technology," together with a greater emphasis on helping the poor build up their own dependable sources of good food and water, can spur development that will encourage greater self-sufficiency and greater health and hope among the world's poor. Moreover, the emergence of indigenous industry will be stimulated; thus a growing number of these poor will be employed. In the end, this will enable them to increase their skills and education, to earn income above and beyond what they need for mere survival, to create more than they consume, and finally, to begin to invest in their own future by having fewer children and conserving the basic natural resources they require for continued development.

#### IV. CONCLUSION

I have addressed myself to the concerns that are well symbolized and summed up by the OPEC and "have" and "have not" meetings mentioned earlier. These concerns are extraordinarily complex — I do not pretend to have addressed them fully. I have tried, instead, to touch upon what seem to be some of the most useful and important things that the United States, and the industrialized world, can do to deal with these concerns. Implicitly, I have suggested that the environmental concern — the concern for the basic integrity of our natural life-support systems — is not something separate from these other concerns. It includes and encompasses them all. It is the root concern.

Confronting these concerns will require not only radically different institutions, but attitudes that are almost exactly the opposite of those that have historically governed human affairs. It goes without saying that none of this will be easy to accomplish. But it is not impossible. I hope we have the good sense, and the good will, to rise to the occasion. Much depends on it.

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