

## The Economic Superpowers and the Environment: The United States, The Soviet Union, and Japan by Donald R. Kelley, Kenneth R. Stunkel and Richard R. Westcott

Jeffrey Silverman

Follow this and additional works at: <http://digitalcommons.law.umaryland.edu/mjil>



Part of the [Environmental Law Commons](#), and the [International Law Commons](#)

---

### Recommended Citation

Jeffrey Silverman, *The Economic Superpowers and the Environment: The United States, The Soviet Union, and Japan* by Donald R. Kelley, Kenneth R. Stunkel and Richard R. Westcott, 2 Md. J. Int'l L. 135 (1977).

Available at: <http://digitalcommons.law.umaryland.edu/mjil/vol2/iss1/11>

This Book Review is brought to you for free and open access by DigitalCommons@UM Carey Law. It has been accepted for inclusion in Maryland Journal of International Law by an authorized administrator of DigitalCommons@UM Carey Law. For more information, please contact [smccarty@law.umaryland.edu](mailto:smccarty@law.umaryland.edu).

**The Economic Superpowers and the Environment: The United States, The Soviet Union, And Japan.** By Donald R. Kelley, Kenneth R. Stunkel and Richard R. Wescott. San Francisco, W. E. Freeman and Co., 1976. Pp. 335. Bibliography, maps, \$11.95 (cloth), \$5.95 (paper).

Any reader interested in the contemporary environmental crisis will find *The Economic Superpowers and the Environment* a welcome addition to the literature on the subject. Consider the problem. Over one-half million alien substances are discharged into the environment each year; thousands of new chemical

compounds are invented annually, and there is no respite in sight. The level of industrial output throughout the world will be increased by a factor of five in only fifty years. In the next thirty-five years the population is expected to double and reach more than seven billion.

We have heard many litanies of environmental crisis. What we need is research and background to help us understand and cope with, if not resolve, some of the problems. The authors analyze the response to the crisis by the three superpowers. They feel that such an analysis will serve as a guide to understanding what the nation states can do about the ecological crisis. They examine "the capacity of preecological institutions to make swift and effective adjustments to the new realities." Within a topical framework, each author develops a profile of one of the three economic superpowers — the United States, the Soviet Union and Japan. The authors

seek in the political systems, economic structures, value orientations, and historical patterns of development characteristic of three ostensibly different industrial states some explanation of their environmental troubles, and of the nature of their political and social responses to those troubles (p. 285).

The topics discussed by the authors include population, energy consumption and non-renewable resources, air pollution, water pollution, solid wastes, radioactive pollution, noise pollution, ecosystem deterioration, and the environmental crisis and the quality of life. Their treatment is best illustrated by the section on water pollution. Wescott points out that the present American industrial, agricultural and household usage of water comprises approximately one-third of the total flow of the nation's waterways. If current and projected growth rates continue, consumption will be roughly equivalent to the entire available stream flow by the year 2000! Given the projected scarcity of available water, the increase of water pollution is even more worrisome. The major pollutants are created by industry, agriculture and sewage plants. The industrial wastes are three times greater than those discharged by municipal sewage plants. As to sewage, one learns with alarm that one-third of Americans are served by inadequate sewer and treatment plants. Even worse, another third live in regions wholly devoid of such sewage

services. Wescott points out that damage has cost us hundreds of millions of dollars and the costs of clean-up would run into the tens of billions of dollars.

Of the U.S.S.R., Kelley notes that its vast size allowed the Soviet government to ignore for many years the destruction of water resources. Today, however, the Soviet government has been forced to acknowledge the national tragedy that endangers Soviet waterways. One Soviet scientist conservatively estimated that greater than one-half of the nation's total runoff is polluted each year. The consumption projections by Soviet scientists indicate that by the year 2000 the water needed by the nation as a whole will be close to that part of the total runoff which could be realistically controlled. The problem of limited water resources is aggravated by the sheer waste of water in Soviet agriculture and industry. One economist has estimated that four-fifths of the water diverted for agricultural uses and irrigation is lost through seepage and evaporation. As for Soviet industry, it is estimated that consumption of water is from four to six times greater than need be. The amount of Soviet water pollution is only two-thirds that of the United States. But when the GNPs of the two nations are compared, it is obvious that the U.S.S.R. is the more intensive polluter. With only one-half the GNP the United States, the amount of pollution is two-thirds that of the United States. As for sewage treatment in the Soviet Union, only 20% of Soviet cities have any form of waste treatment. Even worse, over 60% of all waste is discharged without any preliminary treatment. As to the costs, Kelley cites one Soviet economist as estimating that six billion rubles a year are lost because of polluted waters.

In his treatment of Japan, Stunkel paints an equally bleak picture. Given projected industrial, agricultural and domestic demands, the total requirements for fresh water will shift from 79,380 million tons in 1970 to 126,290 million tons in 1985. During this same fifteen-year period, the biological oxygen demand (BOD) load is predicted to rise from 6.4 million tons of water to 21.2 million tons of water. The sewage facilities in Japan drain only 23% of the inhabited area and, thereby, serve only 35% of the Japanese population. With so little arable land, the Japanese use ten times more pesticides per acre than the United States. Given the concentration of industry and population within such a small area, the water pollution in Japan has produced serious health hazards. A stunning example of this

is "PCBs." Polychlorinated biphenyls, used for their insulating properties in diverse industries, have entered the water system. They also sift down indirectly from the air. They have permeated both cereals and fish, staples of the Japanese diet. More gruesome than PCBs are the effects of heavy metal poisoning in Japan. In particular, cadmium poisoning, dubbed Itai-Itai (ouch! ouch!), is a disease in which the skeletal structure of the victim is decalcified. Overall, the Japanese picture is more acute. Given its limited size coupled with the unprecedented industrial growth, the water pollution problem is foreboding.

The treatment of water pollution as well as the eight other topics form a basis for understanding the ecological crisis confronting these three superpowers. Given this foundation, the authors proceed to examine the awareness, the political response, and the active programs of these three nations.

Addressing the area of awareness, the authors examine the responses of the scientific community, government and industry, and the public. In the United States, Wescott notes that the scientists were the first to evince an awareness of the dimensions of the environment and its pollution. Environmental awareness on the part of the government roughly paralleled that of the scientific community. Ecological awareness in the business community is a recent phenomenon. Yet, private investment in the air- and water-pollution control facilities is presently growing at a rate of 32% a year. The public's response has been largely apathetic. Wescott explains, "most people simply did not have an adequate basis for judgment."

As for the Soviet Union, Kelley characterizes the 1960s as "a quiet revolution in environmental awareness." The scientific community pressed for awareness and effective abatement programs. Kelley feels that they have waged an uphill battle against hostile government bureaucrats, industrial managers, skeptical fellow scientist and an apathetic public. Despite increased governmental activity in the 1960s, the Soviet leaders are reluctant to acknowledge the gravity of the problem. The public lags further behind. Kelley states that the average Soviet citizen views nature's wealth as inexhaustible. Man's fate is seen as conquering and reshaping nature. More significantly, the average Russian places the satisfaction of his own material well-being above that of environmental considerations. Bent on economic growth, both the government and the public remain distant from the realities of the pollution problem.

In Japan, the national consciousness of environmental problems has arisen since 1965. Stunkel points out that the Japanese are aware of the direct damage inflicted to health and property by pollution. However, the long-range ecological dangers are largely ignored. Stunkel feels the Japanese view pollution as only a "side-effect" which can be corrected without strict controls on economic growth, consumption levels and waste. Only a handful of the scientific community have addressed themselves to a wide range of environmental problems. The government, while acknowledging the worsening environmental conditions, has shown an ambivalence in wrestling with the problems. Only recently has the business community begun to face the problem. In the public sector there has been a striking surge in awareness. However, Stunkel finds that the average Japanese citizen is inclined to bear suffering and hardship in silence.

Turning to the politics of environmental quality, the authors discuss the political issues and national priorities, the agencies charged with the responsibility for implementing and enforcing environmental policies, and the policy-making dynamics as reflected in the activities of pressure groups that operate within the society. In addition, they discuss the role, if any, that the courts have played in securing protection against alleged offenders. In a valuable addition to this political analysis, the authors provide a case study in each nation to illustrate the political process at work. Wescott has chosen Lake Erie to symbolize the plight of the waterways in the United States. Kelley details the political debate over the pollution of Lake Baikal which "lined up environmentalists against industrialists in a battle that illustrates the pitfalls of Soviet environmental policy making." Finally, Stunkel provides two examples in discussing the pollution in Minamata City and the citizen's movement in the Mishima and Numazu districts near Mount Fuji and Hakone National Park.

In discussing the active programs, the authors examine the extent of legislation. Specifically, they look at the areas of population control, resource management with an emphasis on the present energy crisis, land conservation, recycling technology, and endangered species. There is a more detailed discussion of national programs, participation in international programs, budget allocations, and program effectiveness. Of special interests in this chapter is Kelley's analysis of program effectiveness in the Soviet Union. He concludes that:

Having built a modern industrial nation through a system of authoritarian political and economic institutions which dominated virtually the whole of the society and which placed the highest priority on rapid industrialization, Soviet authorities have been reluctant to surrender these prerogatives and goals — and the implicit legitimacy which accompanies them — through the recognition of new environmental priorities (p. 243).

Discussing Japan's deficient efforts to deal with pollution, Stunkel notes five reasons: the absence of a tradition of public responsibility or the commitment of groups to the public interest; the failure to enforce or obey environmental laws; the persistent tendency to underestimate the severity of environmental problems; the substitution of endless studies for action that postpone or obviate confrontations; and, lastly, the specific pattern of relations between the government and industry known as *gyosei shido*, or administrative guidance.

In their concluding chapter, the authors assess the prospects for the future as well as engaging in a brief comparative analysis. Wescott argues that while the democratic political system in the United States facilitated the enactment of antipollution legislation it paradoxically militates against serious consideration of the more fundamental problem of resource allocation. In addition, he notes that the traditional American bent for individualism, the decentralized system of government, and the profit motivations of business are bars to effective centralized planning and administration of effective environmental programs. He concludes that the American trait of mobilizing massive efforts to deal with problems only when a crisis point has been reached is the likely way the resource crunch will be met. As for the Soviet Union, Kelley's projection is not encouraging. He feels that there are overwhelming pressures to modernize the economy and devote more attention to rising consumer interests. In addition, he feels that the political pressures to preserve the existing dominance of a pro-industrial and pro-growth elite will cause the Soviet leaders to commit themselves to further technological development and unrestrained economic expansion. The result will be marginal attention given to the environment. For Stunkel, Japan's "Prognosis is not good." Because of her unique culture, Japan has a chance to redress the imbalance between a modern industrial state

and its threatened environment. Hope is slim, however, for action must be taken in the near future to be effective.

In their final section, entitled "What's so different about being different," the authors point out that the basic nature of the economic system is a "poor indicator of a nation's potential to destroy its environment or the likely ways in which it will respond to the problem." They also note that seemingly divergent belief systems may contribute to a like pattern of environmental deterioration. They view the anthropocentric attitude toward nature as a common feature in the ideological heritage of each nation. They further note that there is a difference in the pattern of political responsiveness in the style of political decision-making and the role of interest groups in policy-making. The authors see on the one hand two relatively closed and consensus-oriented decision-making systems (the Soviet Union and Japan) and on the other hand a relatively open and conflict-oriented system (the United States). In concluding, the authors focus on what they perceive as an apparent paradox. The United State's system provides a more favorable climate for the emergence of an effective environmental movement, as contrasted with the Soviet and Japanese closed decision-making systems. Yet, were there to be a redefinition of national priorities in these latter two nations, subsequent implementation would be freer from the need to fight the continuing rear guard action against polluters which is inherent in the open and conflict-oriented system of the United States.

*The Economic Supervisors and the Environment* cannot be viewed as a basic research work in the field of environmental pollution. There is an absence of detailed analysis, a disjointed format and a lack of footnotes. The work should be viewed as an introduction to the worldwide environmental crisis as reflected by the treatment of these three economic superpowers. The political, economic and cultural responses by these three nations will provide a springboard into the topic as a whole. The authors are correct in their view that the treatment of the environmental problems by these three superpowers will significantly influence other countries and shape world's future environment. All in all, the book provides the reader with some background to a complex area and addresses the need for cataloguing various approaches to the ever-worsening pollution problems.

Jeffrey Silverman