

BOOK REVIEWS

GLOBAL INSECURITY: A STRATEGY FOR ENERGY AND ECONOMIC RENEWAL. Daniel Yergin and Martin Hillenbrand, eds. Boston: Houghton-Mifflin Co. 1982. Pp. xiii, 427. Index \$15.95.

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Price and the availability of energy have proved to be the major determinant of the economic well-being of the Free World. When supplies were plentiful and prices low, economic growth occurred as a matter of course. Demand more or less expanded to meet supply. Countries reveled in the luxury of what seemed to be limitless energy.

Then came the events that probably foreshadow the rest of this century: the energy crises of 1973 and 1979 which caused huge relative and absolute increases in the price of energy. These events suddenly ushered in a new era of global insecurity, where cheap and plentiful energy was not assured and prosperity became a subject of nostalgia. This book attempts to be the first rough draft of future world energy use and world economic conditions.

Readers of this journal would probably be attracted to the two fine articles that examine both Japan's response to the crises and the future of Japan's industrial machine in the austere times ahead. The first is entitled "The Remarkable Adaptation of Japan's Economy" by Teruyasu Murakami, a senior consultant in the Energy Studies Department of Nomura Research Institute in Japan. The second is a socio-political piece by Joji Watanuki, Professor of Sociology at the Institute of International Relations of Sophia University in Tokyo, entitled "Japanese Society and the Limits of Growth."

The two articles, while not wholly optimistic in their examination of Japan's future, are not as pessimistic as those that examine other nations' economies. Whereas the sections devoted to the United States bear such titles as "The Bedeviled American Economy" and "America in the Strait of Stringency," and those

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covering Western Europe are plaintively titled "Europe's Farewell to Full Employment?" and "The Social Contract under Stress in Western Europe," the articles on Japan marvel at its "remarkable adaptation" and feel it necessary not to discuss whether the Japanese economy will grow but rather to delineate the limits of growth.

This disparity in treatment could be dismissed as merely the parochialism if only the authors' relative optimism was not warranted. America and Western Europe are correctly portrayed as reeling under the blows of the oil crisis, and as struggling to free themselves; in America's case, from the paralyzing heritage of an expanding frontier and an economy based on unlimited domestic energy supplies, and, in Europe's case, from a social system that refuses to recognize new, harsh and austere realities. Japan alone, possibly because it alone is placed so precariously in the world economy, ("Its only valuable resource is its 120 million rather well educated people," as Murakami¹ so cogently puts it.) has been able to adjust with some semblance of an efficient adjustment to crises and new opportunities. Experience in facing life with little but wits has shown the Japanese the wisdom of acting to improve the situation rather than merely striving to preserve the accepted way of life.

Generally, the book proceeds under two basic assumptions about the future and energy. Robert Stobaugh details two scenarios concerning the seminal condition, the supply of energy, which are labeled the Upper and Lower Bounds.

The Upper Bound is the more optimistic, though it can hardly be read to hearken back to the heady days before 1973. The Upper Bound supply of energy in the year 2000 would total 168.0 million barrels a day of oil equivalent (mbdoe), compared to 94.6 mbdoe in 1980, an average annual rate of growth of 2.6%. The cost of each of those barrels in 2000 (in 1980 dollars) would be \$45, up from \$30 in 1980. This scenario relies in large part on good luck.

The Lower Bound is not as rosy. Here the energy supply in 2000 is a mere 112.0 mbdoe, for an average annual increase of a paltry 0.8%. Each of these barrels would cost \$72, again in 1980 dollars. This scenario portends energy stringency. Disaster is only a catastrophe away² (for example, the loss of Saudi Arabian production.)

Murakami examines the economic responses to these conditions that the Japanese have adopted. A reader is compelled to

1. D. YERGIN & M. HILLENBRAND, *GLOBAL INSECURITY: A STRATEGY FOR ENERGY AND ECONOMIC RENEWAL* at 138 (1982).

2. *Id.* at 160-62.

feel that what is being described is not a nation in the sense of the receptacle of various factions but a superbly functioning machine. The Japanese appeared to be blessed with an ability to divine the handwriting on the wall and to act correctly.

Their response to the 1973 crisis was classic. Although bothered by the panic buying of a population fearing a total oil cutoff, the government surveyed the situation and acted in a coordinated, planned fashion. First, the attack on inflation was given top priority, and inflationary expectations were dampened by governmental actions. Next came the cauterization of the balance of payments hemorrhage. After the initial shock wore off, the government began massive public works which reignited economic growth. Finally, unemployment was kept to a minimum throughout due to the unique relationship between labor and management that exists in Japan. The system of lifetime employment and seniority-based wages allowed sufficient labor flexibility to assure productivity gains to allow retention of workers through the trough of the cycle.

The 1979 crisis was handled even better. Panic buying was a casualty to experience. Price rises were contained at the manufacturing level. Productivity gains allowed economic growth to continue uninterrupted. In short, Japan adjusted very well to the crisis.

Murakami sees no reason why this "remarkable adaptation" cannot continue to serve Japan well. Any future minor oil shortages will be met by an economy that "will exhibit a healthy resilience to oil crises of this type." Current economic growth will be maintained. But most importantly, structural adaptation will take place:

Energy conservation measures and new sources of energy will be developed through privately led structural adaptation, and growth in less energy-intensive industries, notably those that are technology and knowledge intensive, will take place. In addition, the flexibility in Japanese industrial relations will be preserved, and it will support the general confidence of foreign investors in Japan.³

The Lower Bound is more serious. It "presumes a major oil shortage. Moreover, it is not a single crisis but a series of successive crises."⁴ The market will not be able to function efficiently in such an atmosphere, so Murakami sees a need for government-controlled structural adaptation. This will be assisted immeasurably by the existence of an expected wartime consensus within the country that will allow immediate responses. Such adaptation

3. *Id.* at 166-67.

4. *Id.* at 167.

will not be easy under crisis conditions, and Murakami warns that it must be completed before the consensus deteriorates and the country factionalizes. But given the commitment and direction exhibited by the government, it is hard to visualize such a condition. And even at its worst such a deterioration would seem like a bad head cold compared to the pneumonia that would infect the rest of the world.

Murakami envisions a real change in the structure of the Japanese economy. Watanuki describes the likely changes such an adaptation is likely to cause within the society and political system.

After first describing the halcyon days before the 1973 crisis, Watanuki examines the social changes wrought by that crisis. He states:

The 1973 energy crisis delivered a strong blow to the attitudes formed during the period of economic growth embodied in such slogans as 'Consumption is a virtue' and 'Material affluence has the top priority.' . . . After the oil crisis, the traditional Japanese values of frugality and savings regained their position.⁵

Of course, once the crisis passed, Japanese consumers, as did consumers elsewhere, found their addiction a difficult one to restrain. However, the price explosions have had a telling effect on energy consumption. Less was used and what was used was used more efficiently.

Watanuki also explores the various factions present in Japanese politics that are apparently overlooked by many Western observers who see only a culturally and politically homogeneous Japan. What emerges is a country that politically resembles West Germany without its Social Democratic Party. The conservative ruling party is hounded externally by the Japanese "Greens" and leftists, and internally by its contradictory rural-Big Business representation. The saving grace in this combination are the technocrats of the Ministry of International Trade and Industry (MITI). MITI is charged with nothing less than planning the future of the Japanese economy. MITI formulates and implements the plans for investment and structural adaptation. It is this bureaucracy that offers the chance for coordinated and relatively painless preparations for possible future severe energy shocks. Through MITI Japan can react to crises and survive to prosper.

Watanuki sees some dangers, however. First, it is not likely that the economy will top a 4% annual growth rate in the energy-short next two decades. This will not be enough to provide the million or so new jobs necessary to maintain present employment.

5. *Id.* at 178.

As the work force ages, provisions must be made for workers over 55, whose unemployment could exacerbate social tensions. Such an aging population also drives up social welfare costs, with the tax burden being placed on the younger generation. Another struggle will be over nuclear power. Watanuki warns that the society is preparing for an Upper Bound lifestyle and is not seeking to avoid a potentially devastating Lower Bound predicament.

If the Upper Bound results, Watanuki sees the Japanese strengths ensuring a comfortable life for its people.

Being free of any serious ethnic or religious cleavages, and having become more egalitarian as a result of the post-war reforms and through the period of high-economic growth, Japanese society is—and would remain—more stable than those of the other OECD countries. . . . Japan will have fewer problems than other societies.⁶

The Lower Bound would be more problematical. Watanuki envisions a possible 20th-Century version of Hobbesian economic despair if energy supplies do not allow sufficient economic growth. Polarization in Japanese society becomes a serious possibility under those circumstances, and solutions will become harder to implement. In sum, Watanuki sees Japan far better able to handle the Upper Bound than the Lower Bound. This is a rather obvious conclusion. One who has observed the Japanese is hard pressed to accept Watanuki's vision of social disintegration, particularly in light of the ability demonstrated by that country in the last decade to restrain passions and selfishness for the greater good of the economy. Such interfactional trust and consideration seems to be a rock not easily shattered by external shocks.

From "Global Insecurity" comes a greater appreciation for the manifold adaptations that the new era of limited energy supplies mandates. For the Third World, Western Europe and the United States, such adaptation will be very hard and socially divisive. Although the Japanese are in a much more precarious economic position, they have continually demonstrated an ability to take advantage of situations and to shape solutions. One only has to remember the influx of Datsuns, Hondas, Toyotas and Sonys into this country to see the entrepreneurial and cooperative strengths of Japan. Japan seems an Asian Switzerland, a country with many handicaps but the ability to work together and take advantage of opportunities. Murakami wonders about the ability of the Japanese to attract long-term capital, but Japan probably has the will to continue its remarkable economic record.

In this time of recession (depression?) it is easy to forget the energy crisis. Without frequent reminders of the precarious na-

6. *Id.* at 197-98.

ture of the present energy supply situation the notion of an energy crisis can be ignored. This book is one such remainder.

The book also suggests a clear preference for the type of governmental policies that are now required. Even the best of the energy scenarios is rife with problems. Temporary market signals of "gluts" must be disregarded, and preparations must be made for the crises that lie ahead, or the social fabrics will be devastated. America has staked its future on pure and unrestrained market forces. The Japanese, cognizant of the blind alleys and shortsightedness of the market, are more willing to direct the future rather than hope the invisible hand will solve the many difficult problems that may occur within the next decade. Only the future can judge which is correct.

ENVIRONMENTAL LAW AND POLICY IN THE PACIFIC BASIN AREA. Ichiro Kato, Nobuo Kumamoto, and William H. Matthews, eds. Japan: University of Tokyo Press, 1981. Pp. ix, 229. \$27.50.

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In response to the increasingly international effects of pollution, the editors organized the first Asian-American Conference on Environmental Protection.¹ The sixteen papers presented at the conference comprise *Environmental Law and Policy in the Pacific Basin Area*.² Conferees, from Pacific Basin nations, examined the laws and policies controlling environmental problems in Japan, the United States, and five Southeast Asian countries.³

The papers are regionally grouped into three sections. The first section concerns the deteriorating environmental conditions of five Southeast Asian states: Indonesia, Malaysia, the Philippines, Singapore and Thailand.⁴ The papers discuss these developing countries' pollution problems and the national policies that emphasize economic expansion, often at the risk of environmental damage.⁵

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1. ENVIRONMENTAL LAW AND POLICY IN THE PACIFIC BASIN AREA, at viii (I. Kato, N. Kumamoto & W.H. Matthews eds. 1981) [hereinafter cited as ENVIRONMENTAL LAW AND POLICY]. The Conference took place at Sapporo, Japan, in August 1978. A second conference was held at Jakarta, Indonesia in 1980. As of publication, additional conferences were scheduled through 1984.

Provided with funds from The Ford Foundation and The Toyota Foundation, the Japan Center for Human Environmental Problems commissioned research on environmental management and laws in Southeast Asian countries. The conference dealt with the results of this research. *Id.* at 1.

2. For readers interested in the contributors' credentials, biographical information is found in the last five pages.

3. *Id.* at 1-4. Researchers visited China in September 1979. The book's introduction briefly discusses their findings. Researchers found that the population density in the inhabitable regions, the antiquity of industrial equipment, and the dumping of waste contribute to China's environmental pollution. A new Environmental Protection Law promulgated in 1979 involves prevention and reduction of pollution and standards for environmental conservation.

4. *Id.* at 2. The researchers found problems of deforestation, and air, soil, and water pollution in rural areas. In the cities, overpopulation and concomitant urban problems exist.

5. *Id.* at vii. The developing nations encourage modernization without governmental regulations or emission control equipment. Some of the countries, the Philippines for example, subordinate their regulations and programs for pollution control to

The second section contains seven papers which collectively analyze Japan's government,⁶ judiciary, and public⁷ response to pollution.⁸ One can generally conclude from these works that Japan has successfully controlled pollution.⁹ The challenge now facing the country is to repair the environmental damage caused by industrial development.¹⁰

Two papers in the final section discuss the United States' environmental policy.¹¹ The concluding paper calls for increased in-

their plans for national development. Fernandez, *National Policy Trends on Environmental Protection and Pollution Control in the Philippines*, ENVIRONMENTAL LAW AND POLICY, *supra* note 1, at 39.

6. The cornerstone of Japanese environmental policy, the Basic Law for Environmental Pollution Control enacted in 1967, is reprinted in full in Appendix I of the book. ENVIRONMENTAL LAW AND POLICY, *supra* note 1, at 203-211.

7. Two authors discuss the traditional attitudes of Japan's governmental bureaucracy towards regulatory standards and public participation in the process of setting such standards. The Japanese governmental bureaucracy relies on a pyramidal authority structure and stresses efficiency, functional rationality, and competition. The bureaucracy maintains preemptive power over private enterprise and the public. Morishima, *Japanese Environmental Policy and Law*, ENVIRONMENTAL LAW AND POLICY, *supra* note 1, at 81-82; Utsunomiya, *Community Strategies for Improving Our Quality of Life: From Pollution Control toward 'Amenity' Development and Enhancement*, ENVIRONMENTAL LAW AND POLICY, *supra* note 1, at 147.

8. In addition to the contributions on Japanese environmental law and procedures for settling pollution cases, one paper focuses on land use along the Japanese shore (Abe, *Land Reclamation and the Protection of the Sea and Seashore Surrounding Japan*, in ENVIRONMENTAL LAW AND POLICY, *supra* note 1, at 113-121.) Another paper discusses the Japanese Noise Regulation Act and problems of noise control (Nomura, *Problems and Concepts in Noise Prevention*, in ENVIRONMENTAL LAW AND POLICY, *supra* note 1, at 123-139.)

9. Morishima, *supra* note 7, at 79. The emphasis on sustained growth and production in the 1950's and 1960's caused serious water and air pollution which resulted in health injuries. Industrial discharges during this period led to respiratory diseases, a painful bone ailment, and cases of mercury poisoning. According to a report cited in the article, Japan's neglect of environmental protection contributed to the problem.

However, environmental pollution in Japan improved significantly in 1974 and 1975. Utsunomiya, *supra* note 7, at 143. and table *Id.* at 144. For a comparison of Japan pollution control expenditures with those of western countries, see Gross & Scott, *Comparative Environmental Legislation and Action*, 29 INT'L & COMP. L. Q. 619, 654-655 (1980). For an extended review of how Japan sets emission control standards, see Gresser, *The Development of Pollution Control in Japan*, 1 HARV. ENVTL. L. REV. 541, 545 (1976).

10. Utsunomiya, *supra* note 7 at 141-152. Since Japan has abated several types of pollution, the author is concerned with developing and enhancing amenities or improving the physical living environment. Convinced that man's total environmental needs encompass four elements—physiological, economic and safety, social, and psychological and emotional—Utsunomiya argues that Japan's environmental policies expand to include issues of pleasantness, preservation, and beauty. With respect to amenities, Utsunomiya believes Japan's centralized political administrative system cannot deal with such subjective or unmeasurable concerns. Instead, he argues local communities assess inhabitants' needs and establish effective regulations and restrictions. An example of local restrictions which Utsunomiya advocates is increased land-use planning and zoning. *Id.* 147-151.

11. ENVIRONMENTAL LAW AND POLICY, *supra* note 1, at 159-181. In Bosselman,

ternational cooperation in protecting the environment.¹²

Any collection of papers written by numerous authors suffers from inherent difficulties of discontinuity and incomprehensiveness. The editors minimized these problems by including an extensive index for reference and comparison. Beyond these inevitable weaknesses, however, serious shortcomings remain.

In most of the papers on the five Southeast Asian countries, the authors present detailed case studies which focus on one or two environmental problems stemming from industrialization.¹³

Relations Between Levels of Government in Preservation of the Natural Environment, ENVIRONMENTAL LAW AND POLICY, *supra* note 1, the author examines the traditional roles of the various levels of government (federal, state, and local) in environmental policy making and advocates increased collaboration and creativity in meeting this country's environmental needs.

In Matthews & Carpenter, *The Growing International Implications of the U.S. Requirements for Environmental Impact Assessments*, ENVIRONMENTAL LAW AND POLICY, *supra* note 1, the authors thoughtfully analyze the 1979 Executive Order requiring United States agencies to prepare environmental impact statements on prospective federal actions in foreign countries. Such environmental assessments involve the United States in foreign prerogatives and sovereignty. *Id.* at 159, 170. Developing countries experiment with environmental assessment, but remain suspicious that it will retard growth projects. The possibility of formal intervention exists if a donor agency's environmental study addresses fundamental strategy or policy of a recipient country. *Id.* at 161-163.

The intensity of review depends upon the impact of the particular action. For example, an environmental assessment is required if an action significantly affects the "environment of the global commons," whereas an action with a lesser impact may only require that an agency undertake a bilateral or multilateral study or a review of available information. *Id.* at 160-161.

The Executive Order was an extraterritorial extension of the U.S. National Environmental Policy Act (NEPA) of 1969. The text of the Act is contained in the book's Appendix. For a review of how the process of the Executive Order differs from that of the National Environmental Policy Act and how the process might apply in federal decision-making situations, see Whitney, *Regulation of Federal Decision Making Affecting the Environment Outside the United States, Its Territories and Possessions*, 3 GEORGE MASON U.L. REV. 63 (1980).

12. In Fuse & Iwama, *Regional Cooperation for the Protection of the Environment in the East Asian Seas and the Pacific*, ENVIRONMENTAL LAW AND POLICY, *supra* note 1, at 183-201, the authors recommend stronger Pacific Basin international cooperation in protecting the oceans. In 1974, the United Nations Environment Programme endorsed regional activities dealing with marine environmental problems. This paper sought to encourage future development of plans to protect regional seas. *Id.* at 183-185.

Citing prior examples of collective action among nations, the paper's authors believe that sub-regional organizations, promoting the protection of East Asian Seas, could respond to the needs and policies of its member countries, and thus avoid some of the geographical and political problems which prevent the region as a whole from adopting a common approach to marine pollution. The author claims that the South-west Pacific political climate is ready for regional environmental management programs. *Id.* at 191-197.

13. For example, one study detailed how recycling of old car battery casings caused lead poisoning in a small Thai village. In the paper on densely populated Singapore, the author analyzed land-use patterns. In the paper on Indonesia, the reader learns about water pollution, but not about Indonesia's air quality.

The reader remains ignorant of each individual nation's other environmental problems.¹⁴ Moreover, since different problems are discussed for each country, the reader does not obtain a comprehensive picture of the overall condition of the region. Aside from the particular problems covered by the case studies, the authors present only a superficial overview, rather than a critical analysis of environmental laws and regulations.

Another problem with the Southeast Asian papers is their limited treatment of the relationship between economic growth and environmental controls. Many of the authors assert that economic development in the Southeast Asian countries need not lead to environmental contamination.¹⁵ Yet, they do not persuasively show how strict pollution controls and industrialization are compatible. While lauding new regulations controlling effluents, the authors recognize that severe shortages of skilled personnel and measuring instruments make enforcement impossible. Unenforced environmental standards existing side-by-side with accelerated economic growth and foreign investment can only aggravate present pollution. A lack of consensus as to the extent of the deterioration and the desirability of pollution controls further compounds the problem.¹⁶

One thing is clear: all five Southeast Asian countries endure substantial environmental deterioration to foster economic growth. The five nations need only look as far as Japan to justify pollution as an inevitable result of industrialization. Only when they, like Japan, reach a high level of development, can environmental protection become a priority.

This reader is not convinced that the regional organization proposed in the concluding¹⁷ paper would be able to effectively regulate pollution when individual countries cannot or will not. Rather, countries would probably participate only as long as participation was in their self-interest. One of two alternatives would result.

First, the author's proposal suggests that regional organizations will respond to the needs and priorities of member countries.

14. In fairness to the editors, it should be noted that a more comprehensive study of pollution for each of the countries might have been impossible or beyond the scope of the book. Also, the seven papers on Japan's environmental problems do give a helpful and in-depth look at the environmental policies of that nation.

15. See Chen, *Development and Environmental Planning in Singapore*, ENVIRONMENTAL LAW AND POLICY, *supra* note 1, at 31, who contends that, while there is a historic relationship between economic growth and pollution, the relationship need not necessarily be repeated in the developing countries.

16. See Sutamihardja, *Water Pollution in Indonesia from the Aspect of Industrial Development*, ENVIRONMENTAL LAW AND POLICY, *supra* note 1, at 65. *Accord supra* note 5.

17. See Fuse and Iwama, *supra* note 12.

But within each country, pollution control is subordinated to the demands of development. No country would press for stricter controls at a regional level than it would accept individually. Therefore, any guidelines adopted would be minimal in order not to fetter any state's plans for growth.

Second possible alternative would occur if the subregional organizations attempted to enforce restrictive policies on the theory that each nation benefits more from collective environmental management than from individual action. Assuming that the organization's environmental standards are more stringent than those the countries would enact, each nation has an incentive to violate the standards to gain the collective benefit without paying the individual costs.

The book's most glaring shortcoming, however, is not the absence of a convincing argument for the compatibility of pollution controls and economic growth, but rather the failure of its contributors to consider the impact of the world-wide economic slowdown on environmental policy. In a recession, national social and welfare needs often become more pressing than environmental concerns.¹⁸ Unfortunately, the book does not discuss strategies for natural resource management in light of constrained economies. This shortcoming probably reflects the 1978 date of the conference. The editor's failure to update the papers prior to their 1981 publication limits the book's relevance.

While not comprehensive, *Environmental Law and Policy in the Pacific Basin Area* furthers an understanding of the environmental concerns of the seven countries covered. To the degree that increased understanding makes the goal of international cooperation more attainable, the authors deserve commendation. The authors' efforts may draw the attention of the countries studied, and therefore stimulate evaluation of their environmental regulation. Such an outcome would be significant, for nations will not support effective international controls until they realistically face their own environmental problems.¹⁹

18. Cf. Utsunomiya, *supra* note 7 at 145. Arguably, Japan's current emphasis on economic issues, not pollution control, might exemplify this shift. For the developing nations, a slowdown or delay in development "is a genuine concern because of the urgency to increase food supplies, create jobs, secure foreign exchange, and achieve a greater measure of self-reliance." Matthews and Carpenter, *supra* note 11, at 163.

19. Grievés, *International Law and the Environmental Issue*, 1 ENVTL. AFF., 826, 827 (1972), *The United Nations and the Environment*, 64 AM. SOC'Y. OF INT'L L. PROC. 211, 235 (1970) (quoting remarks by Ruth Russel).

