

An Overview

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Future historians may describe the 1980s as a time of major transition in the history of Asia, and as a time when Asia awakened from its long slumber and again became a clearly defined presence in the world.

For most of the modern period, the majority of Asian countries existed under the domination of the Western powers.¹ Despite their achievement of independence in the postwar era, Asian countries have been forced to follow a long and difficult uphill path. It was in Asia that the confrontation between the forces of capitalism and socialism was most openly manifested. The collapse of the Soviet Union in 1991 signaled the end of the cold-war structure, which had provided the framework for the post-war world situation.

In the cold-war era, Asia experienced two major “hot” wars, in the form of the Korean War and the Vietnam War. Special demand generated by the Korean War played a major role in Japan’s economic reconstruction, but it inflicted enormous human and material losses on North and South Korea and China. Vietnam experienced three decades of conflict that finally ended with the withdrawal of U.S. forces in 1975. The stagnation and poverty endured by its people since the colonial era were exacerbated by East-West confrontation and open war. For several decades, therefore, Japan remained the only Asian country to achieve economic development and attain a status equal to that of the advanced Western countries.

In 1968 Gunnar Myrdal published his great work, *Asian Drama*, in which he expressed despair about the future of Asia. Ironically, it was from around this time that subtle changes began to occur in Asia. The four “little dragons”—Taiwan, Korea, Hong Kong and Singapore—began to follow in Japan’s footsteps by industrializing and achieving rapid economic growth. By the late 1970s these four economies had gained world recognition as newly industrialized countries (NICs), ranking them alongside such countries as Turkey, Brazil, and Mexico.² The onset of global recession in the early 1980s and Mexico’s subsequent default on debt repayments in 1982 marked the start of a period of uncertainty in the international financial environment. The inevitable consequence for most of the NICs was economic stagnation. This was particularly true of the Latin American NICs, for which the 1980s became literally a “lost decade.”

In contrast, the four little dragons continued to maintain high growth rates, and the term “newly industrialized economies (NIEs),” which came into use in the late 1980s, is commonly associated with these four economies.³ By the mid-1980s the members of the Association of Southeast Asian Nations, especially Thailand, Malaysia, and Indonesia, began to industrialize at an accelerating pace as if trying to catch up with the Asian NIEs. China, which shifted to reform and open-door policies after the third plenum of the Eleventh Central Committee of the Chinese Communist Party in December 1978, is now achieving consistently high growth rates averaging almost 10% per annum. Vietnam emulated China by adopting the Doi Moi (economic reform) policy, and in recent years it has started to work toward a return to the international economy. By the mid-1980s trade among Pacific rim

countries was worth more than trade among Atlantic rim countries, and people were beginning to talk of the twenty-first century as the "Asia-Pacific century."⁴ Australian Foreign Minister Gareth Evans recently observed that "For the first time in 500 years, the center of global economic gravity is set to return to East Asia."⁵

For a long time the words "stagnation" and "poverty" were used to describe Asia. However, in the 1980s the world began to see clear signs of a chain reaction of economic growth. Some economists have likened this process to flying wild geese, while others have described it as "a stratified catching-up process."⁶ Today this process has expanded into a major trend that is enveloping even socialist countries, such as China.

The growth process has also started to accelerate, albeit gradually, in South Asia, which was the setting for Myrdal's Asian Drama.⁷ As we move into the twenty-first century, the Asian countries, especially the East Asian economies, are starting to emerge from their historical stagnation and move toward a future of growth and prosperity.

The 1980s were also a period when the world began to become more clearly aware of the consequences of expanding human activity. The threat of ozone layer depletion and global warming reminded people of the existence of environmental limitations or what might be called the carrying capacity of the Earth. The rapid growth of the Asian economies has also caused a rapid increase in the burden placed on the global environment. The cost of economic growth⁸ at the regional level is already manifesting itself in various parts of the world, and the environment is becoming a limiting factor for human efforts to achieve affluence. People throughout the world recognize that Asia will be the economic center of gravity in the twenty-first century, but the region could also become the pollution center of gravity.⁹ The solution of environmental problems is therefore the greatest priority now facing the late industrializers of Asia.

Environmental problems are brought about by human hands. Their causes are human activities, and the phenomena of environmental destruction and pollution that we observe are none other than the result of these activities. The damage caused by an earthquake or a volcanic eruption, however great it may be, is a natural disaster, not an environmental problem.

If we accept that human activities are the source of environmental problems, then it follows that what we should call into question are these activities and the socioeconomic systems that encourage such activities. That is not, of course, to deny the importance of work based on the natural sciences aimed at measuring the extent of the damage and at developing technological countermeasures. But we should recognize that the question of whether a particular technology (for example, one that can help solve a particular environmental problem) exists and the question of whether it will be widely used by society are in completely separate dimensions. Which technologies a society widely adopts will depend on what sort of problem-consciousness that society has and what sort of incentives and rules it provides for its members (including corporations). A scientifically observed level of environmental degradation that one society recognizes as a problem will not necessarily be recognized as a problem by another society.¹⁰ And even when two societies share the same problem-consciousness, the rules and incentives that they provide for their members are likely to be different. Hence the need for analyses of environmental consciousness or awareness and human activities from the perspective of the social sciences.

Now let me cite several points that show just a small part of how socioeconomic systems act as factors in the background of environmental problems focusing on developing countries:

- (1) Many governments are under heavy pressure to give priority to development policies, which are vital to the elimination of poverty and the stimulation of depressed economies, and they have little leeway for thinking about the environment. As Prof. Dalgon Lee points out in this book, government officers and business people even in Korea still have a strong belief in a tradeoff between economic growth and environmental protection. Prof. Yusen D. Sung from Taiwan also argues in this volume that there is a “tradeoff between economic development and environmental protection.” A country burdened with massive debts is apt to view the wholesale exporting of resources as the most effective means of reducing those debts. And if the country is experiencing a prolonged economic slump, it will have little money to spare even for investments in production.
- (2) Many developing countries have yet to enact adequate environmental legislation, and even if they have tough laws on the books, they might not have a monitoring and enforcement system capable of ensuring that the laws are obeyed. The small local companies in these countries have little access to the funds and technology needed for environmental countermeasures, and even the multinational corporations operating there, though they have ample funds and good technology, tend to implement only the minimum measures needed to comply with the prevailing regulations; these are often lax, at least in application. Though businesses have been going global rapidly, environmental regulatory systems have failed to keep pace.
- (3) There are, moreover, cases in which environmental laws are used to justify pollution rather than prevent it. That is, in situations in which pollution is already causing real harm, companies sometimes refuse to do anything about it on the grounds that their operations are in compliance with the government’s legally mandated emission controls and environmental standards. Furthermore, companies may prefer to pay a modest fine for some pollution-causing activity rather than bring that activity to a halt. So what is the purpose of setting regulatory standards in the first place? Of course they are set with the aim of preventing damage to human health, but perhaps since laws are borrowed or copied from industrial-country models, their spirit fails to be observed. To sum up, it is an easy matter to introduce laws from abroad, but that does not mean that their spirit will be upheld. Regarding environmental law and its enforcement in individual countries and regions, please refer to the papers of Prof. Zou Hailin, Prof. Tsong-Juh Chiu & Prof. Ching Pou Shih, Prof. Sunee Mallikamari and Prof. Koesnadi Hardjosoemantri.
- (4) Many enterprises in China are allegedly continuing to release pollutants while paying the fines set by law. One problem may be that the level of fines is low, but another factor may well be that, particularly at state-owned enterprises, the “iron rice bowl” (the guarantee of government support, *oyakata-hinomaru* in Japanese) undermines the incentive to control costs. This is a bias of the traditional socialist system arising from its dependence on “soft” budget constraints.¹¹ Prof. Wu XinXin, Mr. Wang Fenyu, and Ms. Deng Xueming discuss the factors restricting efforts in industrial pollution control in China in this book.
- (5) The government may decide to sell a resource commodity at an excessively low price, causing it to be used wastefully, and perhaps aggravating damage to the environment. Many governments have subsidized energy, such as petroleum products, coal and electricity. Coal in China is a typical example.
- (6) Some industries are under the thumb of a monopoly or an oligopoly, and if their output is vital to the country, the regulators will be reluctant to shut them down just because they are releasing pollutants. This type of situation can easily occur in developing countries because of differences in the degree of political influence that can be exercised by

- companies (polluters) and residents (victims). As an example, Prof. Tamio Hattori points out a case in Korea within this book.
- (7) There are cases of some sort of land ownership systems distorted in ways that encourage the overuse of renewable resources. Prof. Germelino M. Bautista gives a discussion on the case of forest sector in the Philippines in this book.
 - (8) Much of the dynamic economic growth of recent years in Southeast Asian countries has been produced by the surge of direct foreign investment in manufacturing facilities by American, European, Japanese, and more recently South Korean, Hong Kong and Taiwanese companies. Now that these local plants are coming on line in significant numbers, the problem of industrial waste disposal has emerged. One issue is the lack of relevant legislation in the host countries, but the matter is further complicated by the fact that the legal provisions and arrangements for industrial waste also differ among the various investors' home countries. We are in an age in which business activities can be expected to become ever more global in scope. As the papers in this book by Dr. Masahisa Nakamura and Ms. Kayoko Kitamura point out, an urgent need exists to address the issues of (a) harmonizing policies to promote foreign investment with environmental policies at the national level and (b) harmonizing environmental policies and legal systems internationally.
 - (9) Some political systems function as "development dictatorships" that tend to turn a deaf ear to citizens who call for an environmental cleanup.

A variety of social and institutional factors, then, lie behind the worsening environmental destruction in the developing world, and no solution will be possible unless all the elements are addressed. The most important goals for research on the theme of development and the environment are therefore to ascertain the social conditions that lead to environmental deterioration in developing countries, and to devise measures to remedy these conditions.

Agreements reached at the Earth Summit in June 1992 require the industrial countries to provide financial and technical support in order to enable the developing countries to balance developmental and environmental concerns. Japan made the biggest funding pledge of any country, announcing that it would spend between ¥900 billion and ¥1 trillion on official development assistance in environmental fields over the next five years (its donations in the fiscal year that began in April 1990 amounted to ¥165.4 billion). It may seem natural for Japan to be so generous. Having overcome serious industrial pollution at home, it has picked up considerable expertise, and with the biggest trade surplus in the world it is not short of funds. The question, though, is whether the aid it provides will be of much help.

An undertaking by the North to support environmental programs in the South, donate funds and anti-pollution devices, and transfer technology will not of itself guarantee that developing countries attain the goal of curbing the release of pollutants and preserving the environment. The installation of pollution control equipment in a developing country's factory, for example, can fail to produce the results expected. The supply of electricity may be inadequate, as it often is in developing countries, forcing other machines to be turned off to permit operation of the production device. Again, it will not be used unless plant managers are provided with sufficient funds to keep it running, and without proper maintenance it will soon cease to function as it should. In such cases, the equipment will be unable to fulfill its purpose of protecting the environment.

Obviously technology developed in the advanced countries will play an important role in environmental protection in the growth economies of East Asia, especially with regard to

industrial and urban pollution. The question is whether social, economic, and political conditions in the countries concerned will permit this technology to be utilized appropriately. Environmental protection at the national or regional level must in practice be implemented by local communities and people.

The industrial world can lend a hand by supplying funds and technology, but while this may be a necessary condition for protecting the environment, it is by no means sufficient. Again I would like to emphasize that only the developing countries' citizens themselves can find solutions to the myriad problems that exist.

Finally let me briefly introduce this book, which consists of five parts.

In the introduction, Mr. Naoyuki Sakumoto and I present our personal views of the issues and prepare the way for further discussions. The key concept of Mr. Sakumoto's paper is a "preventive environmental management approach," while my paper focuses on the "advantages of backwardness in terms of awareness," to which concept I would like to add the following points. First, in most East and Southeast Asian countries environmental impact assessment is already legislated. Further, as Prof. Sang-gon Lee points out in this book, the Korean government has already introduced some economic instruments as an environmental protection measure. Lastly, on environmental deterioration in Malaysia, Prof. Sham Sani declares that "such deterioration may not be as serious as those experienced in some other countries," immediately followed, of course, by the qualification that "it is sufficiently significant to cause concern." It might be said that the time has come to investigate carefully the "backwardness" of the advanced countries, including Japan.

In Part I, the Japanese experience is investigated from various viewpoints. Throughout Japan's "catching up" process, overriding priority was placed on industrialization and export promotion and the environmental fallout was largely ignored as an insignificant side effect. As a result, a number of tragedies arose, Minamata disease being among the most serious. It was only after the mid-1960s that comprehensive sets of ministerial, legal, and planning frameworks for environmental protection were established in Japan. While Japanese success with pollution control in the 1970s has been noted internationally, some describe the whole story of the Japanese experiences as the "get dirty, clean up" strategy of economic development.¹² Prof. Toshiko Akiyama, Prof. Kazuhiro Ueta, Prof. Shun'ichi Teranishi, Mr. Kazuhiko Takemoto and Ms. Nahoko Nakazawa, Prof. Yoshihiro Nomura, Prof. Shoichi Ogano, Prof. Fukashi Utsunomiya, and Mr. Tetsuo Murata (attorney-at-law) provide their own views of what the lessons of the Japanese experiences should be, focusing on different aspects. As concern over global warming has spread worldwide, energy strategy has turned out to be an important environmental policy. Dr. Haruki Tsuchiya presents an alternative energy strategy for the future, examining the Japanese experience.

In Parts II and III, the experiences and future prospects of industrializing Asia are discussed. Unfortunately, the traditional approach to development, like the Japanese "get dirty, clean up" strategy, still seems to be popular in this region. Asian NIEs, especially Korea and Taiwan, have already followed in Japan's footsteps, furthermore China and ASEAN countries appear to be heading in the same direction. In this section, scholars from various countries and regions provide views on their own localities, and Japanese scholars and IDE staff members also join in the discussions with presentations of their own papers. Those who jointly discuss each country's case are Prof. Wu XinXin & Mr. Wang Fenyu & Ms. Deng Xueming and Prof. Zou Hailin and Prof. Reetsu Kojima for China, Prof. Yusen D. Sung, Mr. Tadayoshi Terao and Profs. Tsong-Juh Chiu & Ching Poh Shih for Taiwan, Prof. Tamio Hattori, Prof. Dalgon Lee, and Prof. Sang-Gon Lee for Korea, Mr. Mikimasa Yoshida and

Prof. Sunee Mallikamarl for Thailand, Prof. Germelino M. Bautista for the Philippines, Prof. Koesnadi Hardjasoemantri and Mr. Michikazu Kojima & Mr. Norio Mihira for Indonesia, and Prof. Sham Sani and Dr. Masahisa Nakamura for Malaysia.

In Part IV, as a concluding section, some international and regional aspects are examined. Ms. Kayoko Kitamura and Mr. Katsuya Mochizuki discuss issues related to foreign direct investment and official development assistance (ODA) respectively. Mr. Naoyuki Sakumoto & Prof. Hidenori Inoue and Prof. Chia Lin Sien & Mr. Naoyuki Sakumoto argue the case for regional cooperation for environmental protection from different perspectives. It should be noted that special attention is paid to Japan's Role in all four papers. Last, Mr. Michael Philips investigates the issues of ODA focusing on energy-related lending by the World Bank and Asian Development Bank.

Notes

1. Correctly but regretfully, Japan was also, to a certain degree, one of these powers.
2. It was in 1979 that the Organization for Economic Cooperation and Development published a report titled "The Impact of the Newly Industrializing Countries on Production and Trade in Manufactures."
3. It seemed that the emergence of NIEs had a strong impact on the former socialist countries. Please see, for instance, Sato, T., "Keizai kaikaku no hikakuronteki kosatsu" (A comparative analysis of economic reform), in Yamauchi, K., ed., *Chugoku keizai no tenkan* (A changeover of Chinese economy), Tokyo: Iwanami Shoten, 1989, pp. 74-110.
4. See, for example, Shinohara, M. and F.C. Lo, eds., *Global Adjustment and the Future of Asian-Pacific Economy*, Tokyo: IDE, 1989.
5. "Special Report: The Pacific Rim—A Year for Crowing," *Time*, Vol. 141, No. 8, February 22, 1993, pp. 12-21.
6. Chen, Edward K.Y., "The Changing Role of the Asian NICs in the Asian-Pacific Region towards the Year 2000," in Shinohara, M. and F.C. Lo, eds., *op. cit.*, pp. 207-231; Watanabe, T., *Seicho no Ajia, teitai no Ajia* (Growing Asia, stagnating Asia), Tokyo: Toyo Keizai Shinposha, 1985, pp. 64-114.
7. According to Prof. David Felix, "the Philippines is a Latin American NIC while tortoise-paced India along with high flying Korea and Taiwan are Asian NICs." See Felix, D., "Import Substitution and Late Industrialization: Latin America and Asia Compared," Working Paper Series No. 97, Department of Economics, Washington University in St. Louis, October 1986, p. 2.
8. Mishan, E.J., *The Cost of Economic Growth*, London; Staple Press, 1967.
9. See, for example, Akiyama, T; K. Ueta; S. Teranishi; S. Fujisaki, "Development and Environment: The Case of East Asian Countries," in Iwasaki, T., et al., eds., *Development Strategies for the 21st Century*, Tokyo: IDE, 1991, pp. 536-545.
10. For an interesting point of view, see Furukawa, A., "Himaraya no shinrin keikanron—fukei to kankyo mondai" (An essay on the forest scene in the Himalayas—scene and environment problems), Furukawa, A. and Y. Onishi eds., *Kankyo imejiron* (Essays on environmental images), Tokyo: Kobundo, 1992, pp. 16-34.
11. Janos Kornai, *Economics of Shortage*, Amsterdam, North Holland, 1980.
12. See, for instance, Poole, Peter J., "China threatened by Japan's Old Pollution Strategies," *Far Eastern Economic Review*, 23 June 1988, pp. 78-79.