THE CURRENT STATUS OF ENVIRONMENTAL PROTECTION IN TAIWAN

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Abstract. Presented by the author as the Keynote Speech of the ROC/US Environmental Law and Management Conference, this piece outlines the formal approaches to environmental control being taken by the Republic of China. It presents in sequence the objectives, strategies, principles, current measures and future emphases of environmental protection efforts—all of which are applicable in varying degrees to government, private enterprise, and the general public. This piece, in presenting an administrative perspective, establishes a context for the analytical articles in this issue.

President Chi-yuan Lin, Professor William H. Rodgers Jr., Distinguished Guests, Ladies and Gentlemen:

I am honored to be invited to participate in this Conference and to have an opportunity to address this distinguished audience. Today I would like to talk about the current status of environmental protection in Taiwan.

Environmental protection is not just a public demand following our economic miracle, it is one of the necessities of a developed country. Thus, in order to create another miracle, a miracle in environmental protection, on August 22, 1987 the Executive Yuan combined the environmental protection authorities in the Republic of China by upgrading the former Bureau of Environmental Protection, under the Department of Health, to form the Environmental Protection Administration (EPA). The Executive Yuan also passed "Guidelines for Environmental Protection for the Present Stage" in late 1987. It is clearly stated in these guidelines that environmental protection is a national priority to be emphasized equally with economic development.

The objectives, strategies, principles, current measures, and future emphases for environmental protection in the Republic of China are as follows:

OBJECTIVES

1. To protect and maintain an ecologically-balanced environment for future generations;

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2. To pursue a healthy, stable, and comfortable natural environment that is suitable for the people, and the protect the people's living environment from being damaged by pollution.

STRATEGIES

1. Give top priority to safeguarding public health through comprehensive planning and management of the environment; set up environmental quality standards in separate stages and work towards their achievement.
2. Place equal emphasis on both economic development and environmental protection. Economic activities which may damage the environment should not be tolerated.
3. Place responsibility for environmental protection on both business and the public, working together with the government.
4. Base national construction, production activities, and consumer behavior on the principles of resource conservation and pollution prevention.
5. Establish the Polluters-pays Principle, pollution-related damage compensation, and environmental recovery programs. The government shall also take appropriate measures of encouragement and assistance in these areas.
6. Increase expenditures for environmental improvement, preservation of cultural heritage and natural resources.
7. Promote environmental education to foster environmental awareness; train personnel and develop technology for environmental protection.
8. Build up a comprehensive system of environmental protection law and regulations. Update information and expand the administrative systems for environmental protection.

PRINCIPLES

1. The Principle of Prevention

In order to ease the strain on the environment, national construction projects, as well as the production and consumption habits of day-to-day life, should uphold principles of conservation of natural resources and pollution prevention. Prevention involves two basic categories:

a. Environmental impact assessment—chiefly intended to induce policy makers to apply cost/benefit analysis to estimate the value of a given
development project in comparison with other possible schemes, and in consideration of the cost of such policies to the environment and natural resources.

b. Reduction and re-use of waste—intended to encourage producers to alter manufacturing processes, equipment, and raw materials so as to reduce waste and boost the recycling and re-use of natural resources.

2. The Principle of Cooperation

Solving problems of environmental protection requires cooperation between the government and the people. Making important decisions and regulations in connection with environmental protection should involve the joint participation of government agencies, representatives from the private sector, specialists, intermediary groups and the public, working together for mutual understanding and protection of the environment. This is in accordance with the aim of making the government's environmental protection policy clear to the public.

3. The Principle of Privatization

Although environmental protection work in Taiwan is mostly in the hands of the government authorities at present, there is abundant private capital, and qualified companies and technical personnel able to undertake the work. This can ease the strain on government agencies, allowing them to concentrate on other pressing affairs and provide improved service, and it also stimulates the development of private enterprise. Privatization policy thus benefits both environmental protection and economic growth.

4. The Polluter-pays Principle

This is a policy intended to spur polluters to improve their facilities, as well as to fine them for the pollution they produce. Economic analysis of environmental problems reveals that one cause of pollution is the concept that the utilization of many environmental resources is basically free, with no set market price. As a result, most people do not think it necessary to be frugal, since users and consumers of environmental resources do not have to directly pay the price of consumption. In fact, this burden is borne by society as a whole. In light of this, polluters should pay all necessary
expenses for pollution prevention, treatment, and restoring an environment seriously damaged by pollution. If it is impossible to determine who is responsible for the damage done, public funds will be allocated to repair the environment.

5. The Principle of Beneficiary-pays

Long neglect of the importance of environmental protection means that there has been a lack of investment in necessary pollution-related public facilities. Existing urban sewerage, interceptor facilities, waste water treatment plants, sanitary landfills, incinerators, etc., are insufficient, thus threatening public health. The planning for construction of these types of facilities is therefore an urgent priority. These are facilities that will have a long life-span for the benefit of future generations, so the necessary investment can be raised through such means as long-term government bonds, loans, and appropriate fees imposed on those areas that will benefit from completed construction. The Beneficiary-pays Principle answers the question of where to obtain necessary funds, and can also encourage the public to be more sparing with natural resources.

6. The Principle of Report—Register—Permit

To gain a realistic idea of sources of pollution, and of how environmental pollution can be effectively prevented, factories are required to apply to their environmental protection authority for permission before installing or altering equipment, or discharging pollutants. They will be required to install automatic monitoring instruments and report their operation records regularly to authorities. By asking factories to first apply to be licensed, and subsequently to file regular and accurate reports, it will be easier for the responsible authorities to gather information and keep effective control over pollution levels. A key feature of this policy is that it will remedy the problem of serious shortages of environmental inspection personnel.

7. The Principle of Remedy

The government is taking steps to bring the settling of pollution-related disputes within a legal framework, and enable victims to gain swift compensation, thus avoiding conflict and maintaining stability in society. On the whole, this means establishing a system of remedy, including both a
system for settling environmental disputes, and a system of damage compensation and reparation for injured parties.

CURRENT MEASURES

1. Report, Registration, and Licensing System for Stationary Pollution Sources and Hazardous Chemicals in the Taiwan Area.

The main purpose of this system is to gather information on pollution sources by inviting enterprises to regularly submit reports on certain activities (such as the quantity and type of toxic chemicals used or sold). All enterprises which discharge waste gas, waste water, industrial waste, or deal with toxic chemicals, are required to go to their local environmental protection bureaus to pick up special reporting forms which must be filled out in accordance with specific deadlines.

Target Activities

- Gathering data on stationary pollution sources and hazardous chemicals in the Taiwan area, to be used as a basis for planning strategies for pollution abatement and prevention, drafting pollution standards, and assisting enterprises in the reduction of their pollution.
- Developing a computerized information system on stationary pollution sources and toxic chemicals.
- Using data gathered from pollution source reports as a basis for revising related laws and regulations.
- Using data gathered from pollution source reports to help lay the foundation for a pollution source inspection system.

2. Major Pollution Source Control Project

This project aims at improving waste water control in major government and private industries.
Target Activities

- Strengthening personnel inspections in the local environmental protection bureaus.
- Selecting highly qualified personnel for carrying out inspection work.
- Improving testing equipment.
- Coordinating pollution source reporting, registration, and licensing systems with an inspection system.
- Carrying out overall pollution control through strict inspections and issuing out heavy penalties for violations.
- Improving environmental quality.

3. Communication Between Ministries, Commissions, and the Environmental Protection Administration

In order to enhance the quality of government policy, the EPA urges central government offices, ministries, commissions, and administrations to take the environmental protection perspective into account when formulating policies and drafting laws. The EPA invites top officials from such government offices as the Ministry of Economic Affairs, the Department of Health, the Council of Agriculture, the Ministry of Transportation and Communications, and the Ministry of National Defense, to convene regular meetings in order to strengthen communication and cooperation between their offices and the EPA. It is hoped that such meetings will help achieve national as well as environmental goals.

4. Implementation of Legislative Policies

Since its upgrade to the Administration level, the EPA has been working on a system of legislation for environmental protection. A number of regulations have been drawn up, formulated, or amended. These include:

- An Environmental Protection Fundamental Law, to act as a constitution for the environment.
- Newly created regulations for pollution control, such as the Soil Pollution Control Act, the amended Air Pollution Control Act and Water Pollution Control Act, etc.
• The necessary directives, standards, and criteria for implementation, to complement all control regulations.
• An Environmental Impact Assessment Law, to thoroughly examine the best use of environmental resources, using methods of integrated technology.
• A Settlement Law for Public Nuisance Disputes, to establish a convenient, swift, and just system for solving environmental disputes.
• An Organization Law for all subsidiary organizations, including rules that govern the National Institute of Environmental Analysis, the National Institute of Environmental Training, and Regional Environmental Protection Centers.

5. Science and Technology Research Projects

Environmental protection involves a conglomeration of various types of scientific knowledge and requires an interdisciplinary scientific and technological approach. Taiwan’s current environmental protection operations are far behind those of developed nations. Therefore, since the establishment of the EPA, emphasis has been placed on the growth of environmental science and technology. Science and technology projects fall into several categories:

• Drafting environmental laws and standards.
• Gathering basic data on pollutants discharged by pollution sources.
• Investigating the overall pollution situation in Taiwan.
• Evaluating the impact of different kinds of pollution on public health and the ecosystem.
• Developing pollution prevention and abatement technology.
• Conducting basic research in environmental science and technology.
• Controlling pollution sources.
6. Industrial Waste Reduction

The EPA has set up several projects to promote the reduction of industrial waste. These projects are aimed at promoting the recovery and reutilization of industrial waste, the efficient use of energy and resources in the manufacturing process, and the reduction of pollution caused by industrial waste.

These projects are expected to help industries use raw materials more efficiently, thus lowering manufacturing costs, reducing pollution, and increasing profits. With these advantages, industrial waste reduction will benefit both industry and the environment.

7. Fees for Municipal Solid Waste (Refuse) Disposal

According to the newly amended Waste Disposal Act, residents are required to pay a fee for the treatment and disposal of their refuse. Since September 1, 1991, residents have had to pay a refuse disposal fee in conjunction with their tap water service fee.

Revenues collected from the refuse disposal fee are used to make municipal solid waste management in Taiwan safer and more efficient, thus upgrading peoples' living standards. Additionally, we hope that fees of this kind can help people become more aware of the large amount of refuse they produce, so as to stimulate them to change their wasteful habits.

8. Strengthening Environmental Education

The EPA has instituted intensive programs to raise the public's consciousness and concern for environmental protection, for the purposes of teaching people how to make responsible decisions in the face of environmental problems, and increasing participation in environmental protection activities.

In conjunction with policy planning, we have conducted environmental education planning and research in the Taiwan area. In regard to academic environmental education, an environmental education center was established with the cooperation of National Taiwan Normal University. A number of educational materials have been produced. In regard to social education efforts, we have worked with schools and public
interest groups. The EPA has helped fund many environmental protection activities in schools and communities.

With these efforts we hope to make the environment a primary concern in the daily activities of the people.

9. *Dispute Settlement*

The following routes will help nuisance-related disputes to be solved in a reasonable and efficient manner, thus maintaining social harmony and enhancing the public welfare.

- Improve procedures for nuisance dispute settlement.
- Strengthen the ability of environmental protection agencies at all levels to settle pollution-related disputes.
- Enhance the role of private environmental protection associations to help in dispute settlement.
- Assist government and private enterprise in pollution monitoring, and in establishing channels of communication for citizens to express grievances involving enterprise activities.
- Pay close attention to public opinion.
- Set up a task force for coordinating pollution related dispute settlements.

10. *Promoting the Eco-Mark System*

Environmental pollution is not just the result of industrial processes—consumers' ordinary behavior may also contribute to the problem. For instance, consumer products such as cleaning agents and detergents may cause water pollution; automobiles and motorcycles can produce exhaust and noise problems. If manufacturers are able to produce environmentally friendly products, then the damage to the environment caused by consumers can be significantly reduced, or even prevented.

The objective of promoting the eco-mark system is to establish a green consuming concept to encourage the consumption of products which are recyclable, low-polluting, and energy-saving, so as to minimize consumer-related pollution. EPA will be selecting eco-mark products with utmost care and seriousness. We hope the public will comply with this initiative by purchasing green products.
FUTURE EMPHASES

Upon being appointed as the Administrator of the EPA on November 21, 1992, I declared the following four areas of emphasis for the Administration in the future:

1. To Fulfill Our International Obligation on Environmental Issues

As inhabitants of the global village, we have been playing an active role in protecting the Earth’s environment. Although the Republic of China is not a signatory party of the Montreal Protocol, we voluntarily abide by the regulations on CFCs set by the international community. Regarding the reduction of CO₂ emissions to halt the greenhouse effect, we will follow the conclusion of UNCED and INC to amend our national energy policies.

2. To Carry Out the EPA’s Five-Year Green Plan

The Green Plan is a part of the Six-Year National Development Plan, which allocates a total of 290 billion NT dollars (11.1 billion US dollars) to environmentally-related projects.

3. To Strengthen Communication Between Government Agencies

In order to enhance the quality of Taiwan’s environmental policy, the EPA invites top officials from the Ministry of Economic Affairs, the Department of Health, the Council of Agriculture, the Ministry of Transportation and Communications, to convene regular meetings to achieve a consensus on environmental policy and issues.

4. To Enhance Environmental Education

The EPA has developed an intensive environmental education program to raise public consciousness and concern for environmental protection. It will do so by teaching people how to make responsible decisions regarding environmental problems, and how to get involved in constructive environmental protection activities.
CONCLUSION

Our efforts in environmental protection will be successfully achieved only through a combination of common sense, action, and cooperation between the government and the people. With this, we will begin to realize our goal of "blue skies, green fields, verdant mountains, and clean water." If we wish to fulfill our responsibilities to this and future generations, actions to protect the environment must be carried out without delay. We hope that with increasing environmental awareness among the people, as well as concrete gains in environmental protection, our country can enjoy both a clean environment and economic achievements. When we have achieved this, the Republic of China will have taken great strides forward in its march towards joining the ranks of advanced nations.