

The Role of Local Governments in Environmental Protection: The Case of the Republic of Korea

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I. Development-centered Policy

During the last three decades, South Korea(The Republic of Korea) has achieved remarkable economic growth. As the economy was going through various development phases ranging from import-substitution to export-led growth, Korea has experienced rapid industrialization, urbanization and population increase, particularly since the mid-sixties.

South Korea succeeded in joining the world's major economic powers in terms of GNP and trade volume in the past two decades, but failed to escape from the underdeveloped position in terms of environment, unemployment rate, and the housing supply ratio.

South Korea ranked 15th in the world in terms of current GNP (gross national product), 40th in the per capita GNP, and 12th in the external trade volume.⁹⁾ In particular, Korea achieved a significant improvement in the production of steel, automobiles, and shipbuildings with the rankings of 8th, 11th, and 2nd, respectively, in the world in 1989.

KDI'S economic forecast			
	(in billion dollars)		
	1988	1990	1991
GNP growth	6.8%	9.0%	9.0%
Total consumption	10.7	10.2	8.7
Fixed investment	16.9	23.4	15.3
(Facility)	15.2	18.4	17.9
(Construction)	18.5	27.9	13.0
Merchandises export	-5.0	4.6	12.2
Merchandises import	14.2	13.2	17.1
Current account	5.1	-2.2	-3.8
Trade	4.6	-2.0	-3.2
Export	61.4	63.1	72.6
Import	56.8	65.1	75.8
Invisible trade & unrequitted transfer(net)	0.5	-0.2	-0.6
Inflation			
GNP deflator	5.2%	8.9%	9.0%
Wholesale prices	1.1	7.4	3.1
Consumer prices	5.1	9.4	9.7

source: Korea Development Institute

Pursuit of high growth led by vigorous industrialization and export drives since the 1960s has produced remarkable result. This is mainly due to fast growth rate of 8.6% a year which has continued since 1970s. The Korean Economy is expected to grow 9% this year, with its current account deficit widening to \$3.8 billion.²⁾

1) Bank of Korea, Report on the Korean Economy in the World(Seoul: June, 1991).

According to the central bank report, Korea's GNP ranked 33rd with \$8,129 million in the world in 1970. The nation's GNP jumped to 27th in 1980, 19th in 1985 and further to 15th in 1989 with \$211.2 billion. Per capita income placed 80th in the world with \$252 in 1970, but jumped to 73th in 1975(\$594), 61th in 1980(\$1,592), 50th in 1985(\$2,194) and to 40th in 1989(\$4,994).

External trading volume(exports plus imports) ranked 32nd in the world with \$12.3 billion in 1975. It soared sharply to 12th with \$61.4 billion in 1985 and maintained the same level with \$112.5 billion in 1989.

2) Korea Development Institute(KDI), Economic Forecast in 1991,(June 1991).

These figures are heartening in themselves. However, there is a negative side which will not let us rest on our laurels.

Translation of the figures into corresponding increase in the quality of life falls short expectations. Rapid economic growth coupled with industrialization, urbanization and population increase started to cause various environmental problems. Nevertheless, a relatively low priority has been given to environmental conservation since the fast economic development was then the highest national goal.

Entering the 1980s, as public concern about the ever worsening environmental problems arose, environmental right was incorporated in the Constitution of the Republic as one of the people's basic human rights. To embody this constitutional right, various environmental laws and regulations were enacted and amended. The Environment Administration was established in 1980 incorporating Environmental Management Bureau of the Ministry of Health and Social Affairs to take charge of national environmental protection. Six Regional Environment Offices, the quasi-governmental agencies including Environmental Management Corporation and the Korea Resources Recycling Corporation were also established under the Administration. With these legal and institutional setup, the government started to take necessary measures to protect the environment.

In order to formulate and execute effectively policies and programs to ensure environmental protection, the Environment Administration was upgraded in January 1990 to the Ministry of Environment headed by a cabinet minister. The fundamental policy of the Government which aims at environmentally sound and sustainable development was proclaimed in the newly enacted Basic Act for the National Environmental Policy of 1990.

Five other acts were made for sectoral environmental management substituting the former Environmental Preservation Act which covered too broad range of environmental management in a single act. Because of the lack of environmental concern of the public, however, these acts were almost ineffective.

II. Deterioration of Environmental Conditions

1. Air Pollution

As a result of continued urbanization together with the rise of living standards, energy consumption in urban areas, in particular, increased rapidly which in turn called for air pollution in cities. In some large cities including Seoul, there are places where level of pollution often exceeds ambient air quality standards in winter. Major portion of air pollutants comes from combustion of oil and coal which comprise 82% of total energy use, and emission gases from motor vehicles increasing

at an accelerated rate. Sulphur Dioxide [SO_2] is one of the most serious air contaminants in large cities in Korea.

In most large cities, TSP(Total Suspended Particulates) standard in ambient air which is $150\mu\text{g}/\text{m}^3$ on a long-term basis is often exceeded. This is due to TSP from rapidly increasing motor vehicles, construction works and industries.

In general, people are most sensitive to noise. As living standards go up, noise problem becomes more important concern of the people and the government. Of the total complaints and petitions received by regional, local and central governments in 1989, the half was about noise.

Vehicle emission has become a major air pollution source due to the rapid increase in the number of motor vehicles; i.e., from 29,000 in 1960 to 2,660,000 in 1989. Consequently the control of vehicle emissions has become a very important part in the air quality policy and programs.

2. Water Pollution

Korea is one of the few countries in the world which were endowed with plenty of clean fresh water. Along with rapid industrialization and urbanization in 1960s and 1970s, however, many rivers and streams started to be polluted. Volume of wastewater has been increasing at annual rate of 7% in sewage, and 20% in industrial wastewater. Thanks to the strengthened countermeasures including installations of wastewater treatment facilities, water quality of major rivers including Han River in the country showed considerable improvement with BOD falling of 3~6 ppm.

Of total contribution to pollution of rivers and streams in the country, approximately 70% is from sewage and 30% is from industrial wastewater. Thus, preservation of water quality of rivers and streams depends more on treatment of municipal sewage than on industrial wastewater for which strong regulation on industrial pollution is enforced. However, the nation's sewage treatment plants serves only 28% of the municipal wastewater as of 1989.

In rural areas, inadequately treated livestock wastes are major source of water pollution. Large scale livestock farms are required to properly treat the wastes under relevant laws. However, livestock wastes of small scale farms, mostly individual farm households, are not subject to regulation by law, and most of wastes from these farms are not treated properly.

Nationwide, approximately 6.5 million cubic meters of the wastewater is discharged daily from 11,200 point sources.

From the middle of 1980s, there have been increased developments of agro-industrial estates in rural areas for the purpose of developing rural economy. However, industrial wastewater from these areas has posed threat to rural environment.

3. Marine Pollution

The Korean peninsula is encompassed by three seas-East Sea, Yellow Sea and South Sea. From long in the past marine resources have been very important national resources to the Korean people. The water quality of East Sea is relatively good due to less inflow of pollutants from inland because its coast is steep mountainous areas where there have not been much urban and industrial developments. Also, pollution diffusion effects are great in East Sea due to its deep water level and fast tidal movement. Water qualities of Yellow Sea and South Sea, however, are no longer satisfactory because of the shallow waters and slow tidal movements, and pollutants from inland urban and industrial areas. The Masan area in South Sea has frequently been susceptible to eutrophication leading to drastic damage of marine environment.

4. Refuse Disposal

In Korea, the average daily generation of municipal and industrial wastes amounts to 78,000 and 60,000 tons respectively. Ninety four percent of municipal waste and thirty five percent of industrial waste are disposed by means of landfilling. However, it is not easy to acquire lands to use as landfill sites due to the relatively limited national land and to opposition from residents.

5. Metal Contamination of Soils

In general, heavy metal concentrations are usually higher in soils in the vicinity of mining and industrial complexes. Though not serious, current tendency illustrates that the heavy metal contamination of soils of these areas is rising. Along with increased agricultural production, use of pesticides rises.

6. Pollution by Toxic Synthetic Chemicals

Man and the environment is exposed to various kinds of chemicals during their development, production, use and disuse. Use of chemicals is expanding in proportion to science and technology development and thus increasing threats to environment and human health.

III. Policies to Achieve a Balance between Environment and Development

1. Legal Arrangements for Environmental Protection

The government enacted Public Nuisance Control Act in 1963 as the first environmental law in Korea. The act had not been properly enforced, however, because of the lack of environmental

awareness among the public as well as the government officials. Entering the 1970s, the environment has been degraded during the process of fast industrialization and associated urbanization. And there arose the need to actively cope with these environmental problems. The government found the Public Nuisance Control Act inadequate to protect the environment.

Thus, a new Environmental Preservation Act(EPA) was enacted in 1978 as the most fundamental and comprehensive environmental law replacing the Public Nuisance Control Act. EPA covered broad area of environmental management including national environmental policy, environmental dispute, pollution control of air, water, soil, etc.

Entering the 1980s environmental right was incorporated in the Constitution of the Republic of Korea as one of the basic human rights. Article 35 of the Constitution prescribes that "All citizens shall have the right to live in a healthy and comfortable environment; the state and all citizens shall endeavour to protect the environment." Under this article of the Constitution, various legal arrangements were made for materialization of this citizens' environmental right. It was generally agreed that EPA covered too wide range of environmental administration and that it was no more adequate to respond to economic as well as social conditions which continued to change rapidly and became more complicated in all aspects. The government tried to improve legal system of environmental administration, and enacted six new acts replacing the former EPA.

The present structure of environmental laws in Korea forms three stages, that is, article 35 of the Constitution is placed at the top, the Basic Act for the National Environmental Policy of 1990 covers basic environmental policy matters, and sectoral acts follow to deal with specific fields of environment. These acts include Environmental Dispute Settlement Act of 1990, Air Quality Control Act of 1990, Water Quality Control Act of 1990, Noise & Vibration Control Act of 1990, Hazardous Chemical Substance Management Act of 1990, Solid Waste Management Act of 1991, Marine Pollution Prevention Act of 1990, and the Act for Resources Recycling of 1990.

2. Measures to Fight against Pollution

(1) Formulation of Long-Term Master Plan for Environmental Conservation

In 1987, the Environment Administration established a long term master plan for environmental protection up to the year 2001. This master plan is the product of three stage planning which had been carried out for the Han River basin, Nakdong River basin, and the Southwestern Coastal region over a period of five years during 1982 to 1986. The plan was formally adopted by the National Council on Environmental Conservation mainly consisted of relevant cabinet ministers.

The plan includes forecast of future conditions of environmental pollution factors such as land use, population, industry, and economy; prediction of future quality of environment by using up-

to-date mathematical computer modeling techniques; establishment of environmental preservation goals; determination of environmental protection measures to achieve the goals; and preparation of a financing plan.

Gradual strengthening of various environmental standards and specific measures to achieve them is planned in time frame. Total amount of investment required to carry out the master plan is 17,085 billion won (\$ 23.9 billion).

Outline of sectoral programs and investment plans in the master plan are as follows:

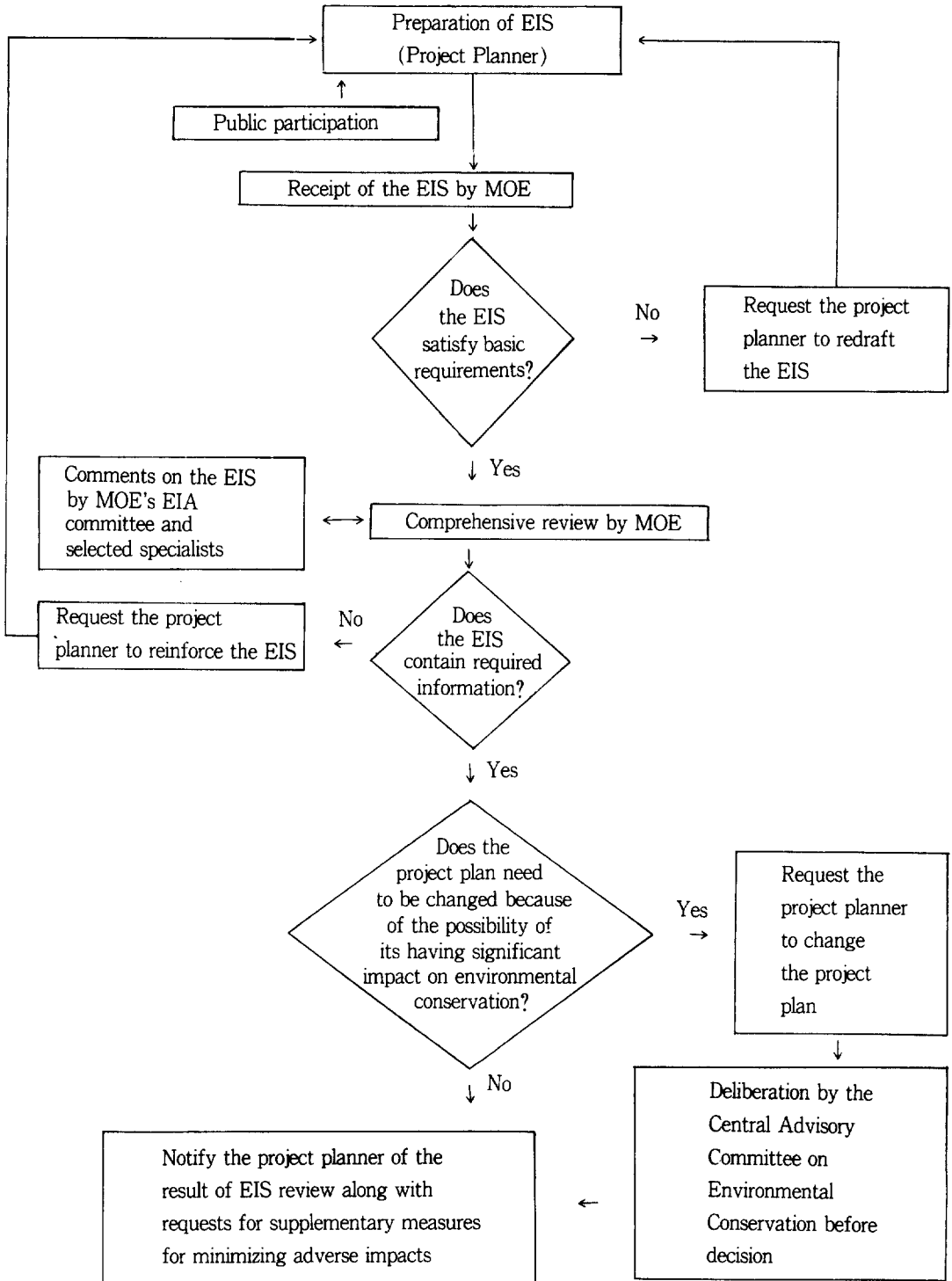
Area	Programs	Investment in billion won
Total		17,085 (\$23.9 billion)
Air Quality	Installation of desulfurization plants at major oil refineries, LNG supplying facilities, low emission equipments for vehicles, desulfurization equipment at coal power plants, etc.,	7,812 (\$11.0 billion)
Water Quality:	Construction of treatment plants for sewage, industrial wastewater, and night soil, etc.,	6,227 (\$8.7 billion)
Solid Waste	Construction of grand scale waste disposal sites, regional sanitary landfill sites, incinerators, resource recovery facilities, etc.,	2,996 (\$4.2 billion)

source:Ministry of Environment, Environmental Protection in Korea(Seoul:1990), p.7.

(2) Adoption of the Environmental Impact Assessment(EIA) System

The EIA system was first formulated in the former Environmental Preservation Act of 1977, and started to be fully implemented from March 1981. The purpose of the EIA system is to ensure environmental considerations in carrying out development activities to avoid or minimize adverse impacts on the environment. According to relevant rules and regulations, a project planner before finalizing project plan is required to prepare an environmental impact statement (EIS) and consult with the Minister of Environment. The categories of projects which are subject to EIA are : urban development ; industrial estate development ; energy development ; port construction ; road construction ; water resources development ; railroads constructions ; airport construction ; land reclamation and forest clearing ; apartment complex development ; and tourist complex development(Article 26 of the Basic Act for the National Environmental Policy of 1990).

EIA Procedure



(3) Economic Incentives for Environmental Improvement-Pollution Charge

Beginning in 1983, the government not only prosecutes but also imposes charges against those industries who discharge pollution exceeding permissible limits as a means of discouraging and preventing illegal discharge of pollutants. Amount of pollution charge is decided considering levels of pollution discharge beyond the control limit, period of discharge and kinds of pollutants. The pollutants resulting in pollution charges include SO₂, dust, offensive odors for air and BOD, COD, SS, and heavy metals including Pb, Cd, Hg, etc., for water.

The charges thus collected constitute the Pollution Control Fund. The objectives of this fund are to provide low interest long term loans for pollution control investments and to operate public environmental projects. The semi-governmental "Environmental Management Corporation" established in 1987 administers this fund.

(4) Protection of Natural Ecosystem

The partial destruction of the nation's flora and fauna due to rapid urbanization and industrialization process in Korea over the last twenty years has prompted the Ministry of Environment to take a number of steps including national survey of natural ecosystem and designation of natural ecosystem conservation areas. The Ministry started to carry out the first national survey of the natural ecosystem in 1986.

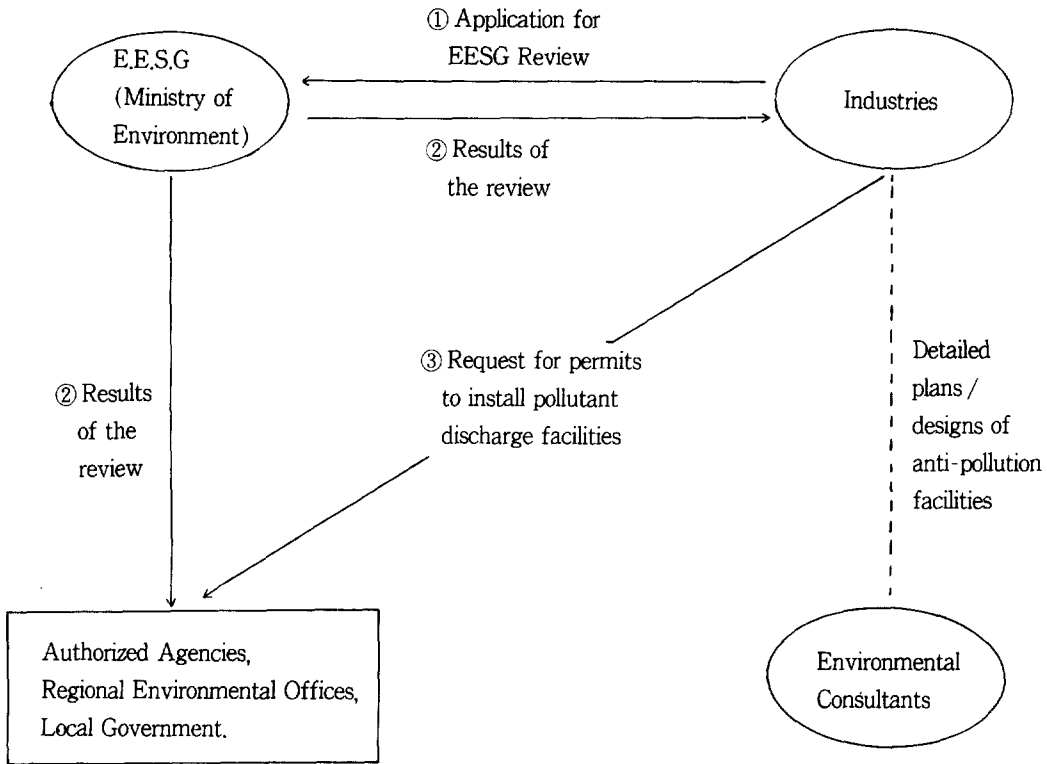
With the aid of this survey the Ministry has designated as natural ecosystem conservation areas the places which accommodate well-preserved natural ecosystem, plentiful natural resources, and natural habitats of endangered plants and animal species. Three natural ecosystem conservation areas have been designated in Korea so far ; the Nakdong river area for immigrant birds, Mt.Jiri for primitive polar plants, and Mt.Daeam for high elevation wetlands. In order to conserve these habitats, entry and environmental vandalism are strictly prohibited by law. The Ministry is planning additional designation of conservation areas to protect flora and fauna of high ecological value.

The Ministry of Environment is going to establish a master plan for natural environmental protection based on the results of the first national survey of natural ecosystem.

(5) Adoption of the Environmental Engineering Supervisory System

Korea has experienced frequent design and construction deficiencies in anti-pollution facilities installed at pollution discharging industries due to limited environmental engineering expertise. To improve environmental engineering expertise and to ensure efficiency of pollution treatment facilities, the Ministry established the Environmental Engineering Supervisory Group(EESG) in 1983. The function of this group is to advise industries on the engineering aspects of the design and

Environmental Engineering Supervisory System



operation of anti-pollution equipments and facilities prescribed in the Basic Act for the National Environmental Policy.

3. Efforts to Promote Public Awareness on Environmental Protection

As the rise of environmental concern is one of the highest priority areas in environmental administration, various nationwide programs have been carried out to upgrade environmental awareness among the public, industrialists and government officials. The programs will be further strengthened by placing emphasis on promoting an atmosphere in which all people participate in environmental protection in their every day life.

The environmental awareness programs include :

- Maximum utilization of mass media such as TV, radio, newspapers, etc., (dramas, interviews and reports) ;
- Various meetings and conferences attended by social and economic groups and environmental specialists ;
- Commemorative activities of the World Environment Day ;

- Environmental campaign in major cities ;
- Promotion of publicity activities ;
- Adoption of environmental code of action.

The Ministry of Environment is carrying out many programs for children. To provide children with basic environmental knowledge, the Ministry, in cooperation with the Ministry of Education, is developing new curricula and the necessary teaching materials for primary and secondary environmental education. Since 1985, the Ministry has been operating model schools for environmental education. These schools are selected from primary and secondary schools for exemplary educational programs in the field of environment. Also, the Ministry sponsors environmental campaign participated by children, and organizes speech and writing contests on environmental protection.

Fortunately, public interest in the quality of the environment now begins to appear. More and more Korean people are beginning to realize the immensity of the social and financial costs of cleaning up air and water, and of preserving and restoring open spaces. In fact, the environmental issue may well retain more attention than social problems that affect smaller proportions of the population.

The most obvious reason for the initial rise in concern about the environment is the recent deterioration of certain environmental conditions. A whole catalogue of symptoms can be arrayed, including ubiquitous urban smog, greater proliferation of solid waste, oceanic oil spills, greater pollution of water supplies by DDT and other poisons, the threatened disappearance of many wildlife species, and the overcrowding of a variety of facilities from commuter expressways to national parks. Millions of citizens observing these worsening conditions became convinced that someone ought to be something about them. But “doing something” to reduce environmental deterioration is not easy. For many of our environmental problems have been caused by developments which are highly valued by most Koreans.

The abundance of our production and consumption of material goods is responsible for an immense amount of environmental pollution. Yet a key foundation for rising living standards in Korea has been the doubling of electric power consumption every 5 years. Electric power generating capacity saw a 10-fold increase to 94.47 billion KWH in 1989 from 9.2 billion KWH in 1970.³⁾

To regard environmental pollution as a purely external negative factor would be to ignore its direct linkage with material advantages most citizens enjoy.

Another development that has led to rising environmental pollution is the democratization of privilege. Many Koreans are now able to participate in certain activities that were formerly available only to a small, wealthy minority. Some members of that minority are incensed by the conseque-

3) The Korea Herald, Wednesday, June 12, 1991.

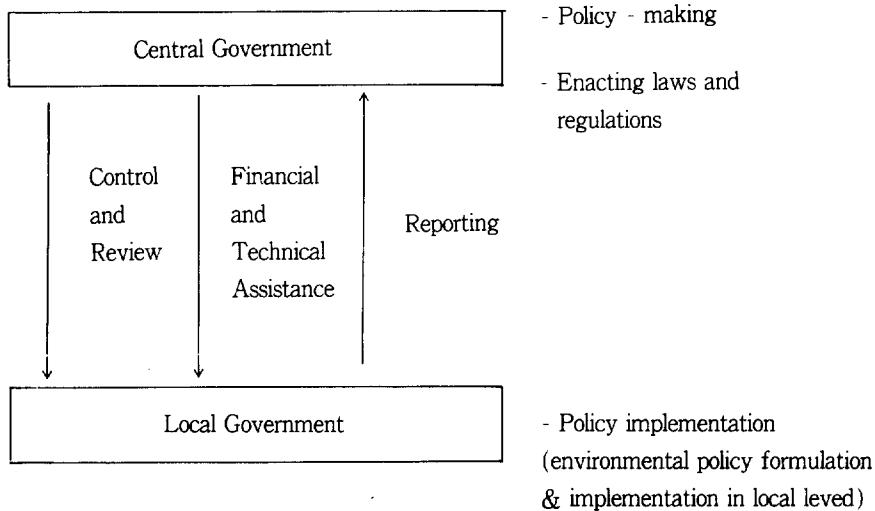
nces of having their formerly esoteric advantages spread to "the common men."

The main cause is the rapid spread of automobile ownership and usage. It has been estimated that motor vehicles cause approximately 60 percent of all air pollution. So the tremendous increase in smog does not result primarily from larger population, but rather from the democratization of automobile ownership. The democratization of privilege also causes crowding in parks, rising suburban housing density, the expansion of new subdivisions into formerly picturesque farms and orchards, and the transformation of once tranquil resort areas like Haewoondae Beach in the Pusan into forests of high-rise buildings.

IV. The Role of Local Governments

Many of the measures concerning the human environment belong to the competence of central governments(which some can only be solved through international cooperation). Local government, however, is also responsible for a number of functions in this field. Through vigorous programmes they can, alone or in partnership with other levels of government, make major contributions to environmental protection and improvement⁴⁾ (See the Functional Distribution Model).

Distribution Model of Environmental Protection Functions among Central and Local Governments



4) International Union of Local Authorities, Local Government and the Environment (Vienna:1972). p.5.

1. Air Quality Management

In this field, the limitations of exclusive matters of local concern are obvious, as the effects of polluted air will usually not be restricted to the territory of only one local autonomous bodies.

Local Governments, however, are authorized to carry out the following actions.

- Make permits for new or expanded industrial buildings dependent on clean air conditions.
- Promote district heating.
- Equip municipal buildings and installations with natural gas instead of coal and oil boilers. Supply of clean fuels such as liquefied natural gas(LNG) has also been expanding starting from large cities as a cleaner substitute energy for coal and oil. Since September 1988, fourteen large cities and towns were designated as LNG using areas. In these cities and towns LNG should be used for heating facilities with capacities of more than 2 ton per day at business and public building.
- Equip municipal vehicles and public buses with anti-pollution devices.

2. Water Quality Management

Local Government is empowered by Water Quality Control Act to

- (1) assure the availability of adequate and safe water for various purposes, including drinking and culinary use ;
- (2) promote the health and welfare of citizens of the local autonomous body by preventing the pollution of ground and surface water ;
- (3) eliminate nuisances and hazards to the public health ;
- (4) contribute to proper conservation and use of ground water.

It is declared, therefore, to be the public policy for the local autonomous body to eliminate and prevent health and safety hazards and to promote the economical and orderly development and utilization of water by encouraging planning and providing for adequate individual and community water quality.

The Ministry of Environment is authorized by the act to provide technical assistance to municipalities for preparing and coordinating water quality planning; to administer grants-in-aid to municipalities for water quality planning.

For example, in order to preserve Paldang and Daechung's water quality to the potable supply-class I level(i.e.:BOD-less than 1 ppm), the Ministry of Environment designated these basin areas of 2,837 km² as the Special Water Pollution Control Areas in July 1990. Various special measures to protect the water quality of these reservoirs are being developed. In regions of direct impacts, land use alteration, hazardous wastewater discharge facilities, and resort facilities are strictly prohibited. Construction of wastewater treatment plants including municipal sewage and livestock

wastes is planned upstream.

3. Sewage and Livestock Waste Treatment

Under the act, municipalities and counties are required to submit to the Ministry of Construction a master plan for sewerage system.

Local Government has the following competences:

(1) control, limitation, prohibition or installing, and the use of sewerage or sewage disposal systems in accordance with the provisions of the act;

(2) implementation of the master plan;

(3) establishment of the criteria upon which implementation of such plan shall be based;

(4) other matters as may be necessary or appropriate to the administration of this act.

The central and local governments are now planning to construct combined waste treatment plants for wastes from small livestock farms. Meanwhile, for proper operation of effluent facilities and anti-pollution devices, inspectoral visits are made by the Regional Offices of the Ministry of Environment and local governments.

Varying levels of control upon the responsible firms are applied based on the effectiveness of their pollution treatment facilities. Industrial facilities have been classified into 4 groups identified by different colors based upon the relative efficiency of the wastewater treatment, i.e.:

—Blue: Exemplary facilities receiving various benefits including loan on concessional terms

—Green: Insufficient operation which needs continuous technical guidance

—Yellow: Facilities which needs intensive supervision

—Red: Facilities with deficient treatment plants. Establishment of appropriate anti-pollution facilities is required.

In order to efficiently treat highly contaminated industrial wastewater from industrial areas, the central government has installed and brought into operation wastewater treatment plants at six industrial complexes since 1984.⁵⁾ While the government has paid the costs associated with the installation of these facilities, the industries themselves are responsible for the costs to operate the plants. The Environmental Management Corporation is in charge of operating the plants.

To keep rural environment from pollution, the government has subsidized local governments since 1988 to install wastewater treatment plants at twenty eight agro-industrial estates.

5) Ministry of Environment, Master Plan for Environmental Conservation:1991-1995(Summary).

4. Management of Solid Wastes

Under the Solid Waste Management Act, municipal and provincial governors are required to submit to the Minister of Environment a solid waste treatment plan.

Government's basic policy is to develop big scale landfill facilities rather than small sized ones. Thirty four regional areas have been designated for the purpose of waste management. For each of these regions big scale landfill site is going to be developed. For the metropolitan area, for example, a grand scale landfill site as large as 5,000 acres in Kimpo County area is now being developed. This site will accommodate wastes from the metropolitan area for more than twenty five years.

Considering lack of landfill areas in the country, the Ministry of Environment is developing programs to reduce the volume of waste by means of incineration and recycling of wastes. Two incineration plants with the capacity of 200 tons per day currently operate in Seoul and Uijongbu City. These plants generate electricity using waste heat. Two more incineration plants will be constructed in the cities of Daegu and Sungnam in 1991. It is expected that approximately 27% of the nation's solid wastes will be treated at incinerators in major cities in the country by 2001. Recycling is another priority area in waste management not only for resources recovery but also for efficient waste reduction. To increase the rate of waste recycling, the central and local governments are planning to reinforce separate collection system, and to provide industries with economic incentives including tax reduction and financial assistance.

It is the government policy that public body treats hazardous wastes containing heavy metals rather than leaving the matter to private industries. For this purpose, the Ministry of Environment constructed two hazardous waste treatment plants in Hwasung County for central region and in Ulju County for southeastern region in 1986 and 1989 respectively with combined treatment capacity of 160 tons per day.

These plants are operated by the Korea Environment Management Corporation. Another plant is now under construction in Kunsan City for southwestern region.

5. Soil Conservation and Toxic Chemicals Management

Since 1987 a network of soil measurement consisted of 1,300 monitoring points in 260 areas throughout the country has been operated to monitor regional trends of soil pollution. Heavy metals being screened are pH, Cd, Pb, Hg, Cu, Zn and As.

Increased attention is paid on the possibility of health hazard from pesticides remaining in farm crops. The Ministry of Environment has established guidelines for safe use of agrochemicals and tolerance limits for 51 pesticides such as aldrin and dieldrin. Since 1987 continuous monitoring of remaining pesticides and other contaminants in agricultural products is carried out by central and

local governments. There have been no case so far where pesticides tolerance limit was exceeded.

The Korean government has designated 385 chemical substances as hazardous chemicals and has controlled their manufacture, import, and sale. Of these, 42 were proved to be considerably more hazardous to human health and environment than the others.

Their manufacture and import, therefore, are prohibited, and their use is strictly restricted.

6. Noise Management

Local Government is authorized to

(1) prohibit the playing of portable radios etc. in some public places;

(2) declare peace street or close some streets off in order to create islands of silence. Myongdong, one of the main streets in Seoul, was declared "a peace street" where no street demonstrations are allowed. The fledgling Chung-gu Borough Legislative Council, formed around April, 1991, adopted this resolution unanimously at a meeting with all of 19 councilmen on hand. The decision was made as a group of storekeepers operating in Myongdong filed a petition with the council purporting that the street has become noisy and dreary due to the recent demonstrations, and should be declared a peace street without cars, street vendors and demonstrations in order to restore its old vitality and to attract more foreign tourists. The declaration has no legal force, but is expected to play a part in controlling demonstrations on the street.⁶⁾

(3) Slow down and divert traffic from busy streets;

(4) improve building regulations to include standards for noise-proof walls and floors.

V. Some Conclusions

In Korea, many kinds of environmental pollution are much more visible and more clearly threatening than most other social problems. This is particularly true of air pollution. The greater the apparent threat from visible forms of pollution and the more vividly this can be dramatized, the more public support to environmental improvement will receive and the longer it will sustain public interest. Ironically, the cause of ecologists would therefore benefit from an environmental disaster like a "killer smog" that would choke thousands to death in a few days. Yet even the most powerful symbols lose their impact if they are constantly repeated. Moreover, some of the worst environmental threats come from forms of pollution that are invisible. Thus, our propensity to focus

6) Chosun-Ilbo, Daily Newspaper, June. 13. 1991.

attention on what is most visible may cause us to clean up the pollution we can easily perceive while ignoring even more dangerous but hidden threats.⁷

Quality of the environment of the world in general and the environment of Korea especially is getting worse. Though science and technology should and can play important role in improving current environmental problems, institutional framework is no less important.

This is because environmental improvement is only possible through political, legislative, and administrative system and, therefore, unless the institutional framework is working properly, any endeavor to enhance the quality of environment will be doomed. This study is about the role of local governments in environmental protection.

Environmental policy can only be carried out effectively in cooperation among the different levels of government. In order to be able to fulfil their specific roles effectively, local governments need, in addition to a certain measure of technical assistance and adequate financial resources, sufficient legal authority. Often they are hampered in taking the necessary measures against polluting industries because legislation allows them only to act in case of new and not of existing installations. They are handicapped by the absence of national standards for permissible levels of emissions. This not only prevents them from effective action, it also puts communities which want to adhere to high standards in an unfavourable position compared with others when they want to attract industries.⁸

Local governments should ensure proper recognition of their potential contribution to national environmental policies. Local governments should demonstrate their interest in launching national environmental programmes.

In order to be able to prepare and implement better environmental policies, local governments will want to introduce coordinating measures.

These can consist of:

- (1) the creation of a direction responsible for all or most aspects of environmental control and regulation;
- (2) an environmental policy office within the office of the governor or mayor .
- (3) a committee of the council for environmental affairs.⁹

7) Anthony Downs, Urban Problems and Prospects, 2nd Edition (Chicago:Rand McNaley college Pub. Co., 1976), p.37.

8) I.U.L.A., op.cit., p.14.

9) For example, Council of the Urban Community of Montreal has Environment Commission as one of the Standing Commissions.

Codification administrative de la loi sur la Communauté urbaine de Montréal, Mise à jour: Août 1985, Art.82 [Commissions permanentes].

Measures for environmental protection often are only effective if they cover the territory of more than one local government. Bilateral and regional cooperation between local governments should therefore be actively pursued. Council of Governments (COG) in the United States, Zweckverband in Germany, Communauté urbaine or Syndicat in France, are these examples.¹⁰ In Korea, however, bilateral cooperation among local governments is very difficult. The operations of joint monitoring systems or disposal units for toxic or other wastes are other examples of intermunicipal projects.

10 Some examples:

- Metropolitan Washington Council of Governments:(COG) (United States).
- Gesetz über kommunale Gemeinschaftsarbeit(KGG) vom 16 Dezember 1969(GVBl. I S. 307)
- Syndicat des Eaux d'Ile-de-France(France)

Cf. Sae-Wook Chung, Science of Local Administration, Revised Edition(Seoul:Bupmun-Sa, Pub. Co., 1990), pp.778-791.