

HUMAN SETTLEMENT COUNTRY PROFILE

REPUBLIC OF KOREA

Decision-Making

Programs and Projects

- A. Providing Adequate Shelter for All
- B. Improving Human Settlement Management
- C. Promoting Sustainable Land-Use Planning and Management
- D. Promoting the Integrated Provision of Environmental Infrastructure: water, sanitation, drainage and solid waste management
- E. Promoting Sustainable Energy and Transport Systems in Human Settlements
- F. Promoting Human Settlement Planning and Management in Disaster-Prone Areas
- G. Promoting Sustainable Construction Activities
- H. Promoting Human Resource Development and Capacity-Building for Human Settlement Development

Status

Capacity-Building, Education, Training and Awareness-Raising

Information

Research and Technologies

Financing

Cooperation

Decision-Making: The Republic of Korea's national strategies are focused on: securing a minimum standard of living for the poor; improving work capacities through occupational training and increasing work opportunities for the poor; increasing welfare services for the elderly, the disabled, and children; supporting the procurement of housing (e.g., public housing for the poor, convalescent homes) and providing financial support for housing loans for the poor; improving medical insurance benefits; increasing unemployment insurance; and, providing measures to tackle the problem of the digital divide that is newly emerging in the era of the digital economy. The Korean government has established "Productive Welfare" as the basic guidelines for poverty eradication. Productive Welfare is used as a guiding principle for establishing social welfare policies with the ultimate goal of transforming those in need into participants in the social growth engine. The government has taken various measures to guarantee a minimum standard of living (food, clothing, medical care, housing, primary and higher education for children, etc.) for low-income citizens as part of its efforts to eradicate poverty. The government is also establishing a social safety net to expand public assistance for the low-income, the unemployed, the elderly, the handicapped, etc. Non-governmental parties are active in advisory committees concerning welfare policies. Various anti-poverty programs are promoted by NGOs, such as welfare foundations, religious organizations, and volunteer groups. The opinions of the local governments are reflected in the decision-making process. In addition, local governments make decisions on their own local plans and programs with guidance from the central government.

Legislation related to changing production and consumption patterns includes the following (dates in parentheses indicate the date of enactment or the latest date of revision): Act Relating to Environmental Improvement Charges (1999); Act Relating to Promotion of Resources Saving and Reutilization (1999); Act Relating to Environmental Technology Support and Development (2000); and the Act for the Promotion of an Environmentally Friendly Industrial Structure (1999). The Ministry of Commerce, Industry and Energy (MOCIE) formulates a National Energy Basic Plan every 5 years and takes full responsibility for implementing that plan. A Voluntary Agreement program shall be introduced for energy efficiency enhancement. The Minister of Commerce, Industry and Energy may order public institutions to use or install energy-efficient facilities. Furthermore, the Korea Energy Management Corporation (KEMCO) may function as an Energy Service Company to encourage energy-intensive industries to install energy-efficient facilities. The government has implemented demand-side management programs such as load management, a time-of-use rate system, a discount system for voluntary curtailment, and a rebate for efficient lighting systems. The government bans the production and sale of appliances and equipment, which do not meet the Minimum Efficiency Performance Standards. The government provides a 7% tax credit for investment in energy-efficient facilities as well as facilities using renewable energy. In addition, 5.25% low-interest loans are offered for energy service companies (ESCOs) and investment in energy-efficient facilities as well as facilities using renewable energy.

The Ministry of Construction and Transportation (MOCT) is responsible for the stability of the people's residential lives and improvements in the level of people's dwellings. The Ministry assists low income groups by providing a National Housing Fund for assistance in buying or leasing houses and supporting the construction of public rental housing. The Ministry of Environment is responsible for environment-related policies and programs including water and air quality management, waste management, and water supply and sewage treatment. The law ensures inter-ministerial reviews and consultation processes. Local authorities are the bodies mainly involved with urban and provincial programs in the areas under their jurisdiction. The Commission on National Territory Policy has decided to establish adequate comprehensive national territorial plans and to manage policies optimizing housing supplies, promoting effective land use, improving basic environmental protection facilities, expanding transportation networks, and developing water resources. About 20 non-government members participate in the Commission on National Territory Policy. The purpose of a Human Settlement Development Plan is to improve the quality of socioeconomic and environmental situations. Since 1988, the government has implemented the Two Million Housing Construction Plan. Responding to meet increased demand for

housing, the government has adopted diverse plans and policies to optimize housing supplies. These plans include the Fourth Comprehensive National Territory Development Plan in 2000 and the annual Comprehensive Housing Construction Plans. Furthermore, stable human settlement development is being promoted through various regional plans, farming and fishing village settlement plans, and remote land development plans. Efforts to improve basic living conditions such as housing, transportation and the environment revolve around resolving housing shortages, improving housing conditions, alleviating traffic congestion in cities, and maintaining a clean environment. The Republic of Korea encourages resource saving and environmentally friendly land development plans, and promotes policies that balance development and preservation. MOCT is also responsible for nationwide land management plans and policies, but much of the policy and decision-making authority regarding land resources use and management is left to the local governments. The role of the central government is to collect assessments from the local governments and set or recommend the general direction of government policies. Experts participate in related advisory committees and residents have the right to attend the hearing process. The legal system for land ownership consists of the Constitution, civil laws, and a variety of public laws. The Constitution guarantees land ownership, civil laws contain legislation on land ownership, and public laws stipulate the restrictions and limitations. The Act on the Utilization and Management of the National Territory exists as the framework act on the use of national territory and land use plans. Based on the Framework Act on National Territory, approaches towards an integrated land use have been made and implemented in order to enable sustainable land resources management. Additional acts and regulations that support the procurement of sites for housing and industrial complexes were implemented to make up for the shortage of land resources. Recently, GIS techniques and Land Information Network Systems are being utilized for comprehensive and efficient territorial management.

While the previous three Comprehensive National Territory Plans were primarily led by the central government, the Fourth Comprehensive National Territory Plan encourages the active participation of local governments, residents, and NGOs in addition to that of the central government. Whereas the central government introduces guidelines for national land policy and enforces pertinent laws, the local governments are in charge of establishing and implementing feasible plans. Private enterprises are expected to engage in increasing local investment and facilitating cooperation with academia. Local residents and NGOs play a major role in expanding participation and monitoring.

Most transport policies have been relegated to local governments which establish and implement their own traffic and transportation measures according to their individual needs and within those scopes stipulated in the higher relevant laws. Scholars and researchers take part in making transport-related policies by participating as members of transport related policy-making committees. Views of business people on major policies are reflected through industry groups and transport-related civic organizations. The Civil Complaint Processing System and the supervision of the National Assembly are additional avenues for reflecting people's opinions on policies. Seoul and its surrounding metropolitan area are the areas that most urgently require solutions to transport problems. The private sector takes part in policy-making through committee participation. In addition, it takes on the role of monitor and supervisor of policies by participating as investigators on sensitive issues as well as by giving policy suggestions and making civil complaints. To reduce energy consumption in the transportation sector, the government has imposed a progressive car tax to reduce the demand for motor vehicles and large sedans. Major laws and regulations that address transport and traffic systems include: the Transportation System Efficiency Act, Passenger Transport Service Act, Automobile Management Act, Road Act, Aviation Act, and Marine Transport Act. Of them, the Transportation System Efficiency Act outlines the basic guidelines for the construction of transportation infrastructure and management of transport systems in Korea. Major cities are required to establish mid- and long-term urban transportation plans. Any urban plans drawn up by these cities containing transportation plans are recognized as the required mid- and long-term transportation plans, thereby ensuring that urban plans and transportation plans are coordinated and

mutually supplement each other. Appraisal Guidelines for Transport Infrastructure Investment were established to provide standard guidelines on how to estimate transport demand.

The Korea Forest Service is responsible for the establishment and execution of policies and laws relating to forests and forestry. The Service's primary function is to establish and implement all types of forest and forestry policies such as the establishment of forest resources, protection and development of forests, forest management, exploitation and utilization of forest products, research, and training. In accordance with the Forest Act enacted in 1961 and amended in 1994 to reflect emerging challenges and opportunities in forest resource management, four 10-year Forest Plans have been formulated. Through these Forest Plans, Korea has successfully reforested the country. In 1973, the first 10-year National Forest Plan was devised to complete the reforestation of bare forestlands and enhance the protection of the existing forests. The implementation of sustainable forest management is embodied in the Fourth 10-year Forest Plan, launched in 1998. The Promotion and Advancement Act on Forestry and Mountain Region was formulated to promote the intensive management of private forests, which take up 70 % of all forests in Korea, and to develop Korean mountain villages in sustainable ways. The Framework Act on Forest Policy was formulated in 2001 to guide the basic strategy of the forest policy focusing on the implementation of sustainable forest management by achieving a balance between conservation and the use of forest resources. The Framework Act on Forest Policy and Forest Act will guarantee the public involvement along with the stakeholder groups' participation in the process of forest policy formulation. The Arboretum Establishment and Promotion Act was also formulated in 2001 for the conservation and utilization of the genetic resources of plants. The Forestry Cooperatives are the non-governmental forestry collaborative bodies pursuing the improvement of the socio-economic position of their members, forest owners, and villagers through their collaborative projects for forest protection, reforestation, silvicultural activity, collection and sale of non-wood forest products, etc.

The Ministry of Agriculture and Forestry (MAF) is responsible for sustainable agriculture and rural development policies. The Committee for Environment-friendly Agricultural Development was established in 1999; its members include government officials, experts, NGOs, consumer groups, the National Agricultural Cooperative Federation and the National Forestry Cooperative Federation. Major groups include farmers' groups, communities, women's groups related to agriculture, and even certain non-agricultural groups. The MAF established the "Environment-friendly Agriculture Act" in 1998 and subsequently revised ordinances and regulations relating to the Act in 2001, modifying the certification system to correspond to international standards for organic farming. The use of farmland for non-agricultural purposes requires approval of the MAF, taking into account the value of farmland conservation. The Republic of Korea annually reviews national policies related to food security in order to meet the basic goals of the 1996 World Food Summit. The "Rural Development Measures and the Agricultural Policy Reform Plan" drawn up by the Presidential Commission on Rural Reconstruction (PCRR) has been a fundamental basis for national policy on food security. All the major stakeholders took part in the formulation of participation-based agricultural and rural policies therein, particularly for food security. Since 1998, a broad-based reform has been undertaken in line with the Rural Development Measures, the Agricultural Policy Reform Plan, and the basic objectives of the World Food Summit as part of the effort to ensure consistent national food security. In 1996, the MAF established the "Environmental Policy in Agriculture, Forestry and Fisheries for the 21st Century," with emphasis on: reducing pollution and other environmentally harmful effects on agriculture, conserving and improving the agro-environment, and encouraging environmentally-friendly farming systems such as organic farming and low input sustainable agriculture. The "Five Year Plan for the Promotion of Environment-friendly Agriculture" was set up in 2001. This plan's goals include the reduction of the use of pesticides and chemical fertilizers by 30% of 1999 levels by 2005.

The Ministry of Political Affairs was established in 1988. The main function of the Ministry is to plan and coordinate women-related policies in order to enhance their effective development and implementation.

“The Equal Employment Act”, enacted in 1987, provides for equality among men and women in terms of employment opportunities and treatment in the workplace, and also establishes maternity protection. “The Women’s Development Act” enacted in 1995, provides a concrete basis for the realization of gender equality and an improvement in the status of women in all spheres of activities including politics, economics, society and culture. It is the responsibility of both the national and local governments to undertake appropriate legal and systematic reforms to improve women’s welfare, as well as to provide adequate financial resources. “The Gender Discrimination Prevention and Relief Act”, enacted in 1999, was created to ensure the non-existence of gender-based discrimination in terms of employment, education, the supply and use of goods, facilities and services as well as in the implementation of laws and policies. In 1998, the Presidential Commission on Women’s Affairs was established to replace the Ministry of Political Affairs under the Office of the Prime Minister. On January 29, 2001, the Ministry of Gender Equality was created to plan, implement, and strengthen policies pertaining to women. In order to promote a coordinated and systematic approach to women’s policies, the first five-year master plan in women’s policies (1998~2002) was developed in consultation with all ministries. Currently the second five-year basic plan in women’s policies (2003-2007) is being implemented, building on the assessment of the first program. Measures to expand women’s representation in policy decision-making positions are as follows: the political party law was reformed to introduce a quota for the number of women nominated to party seats in 2000; and, a women’s employment target system was introduced to improve the representation of women in high-level positions of public service in 1996; a gender equality employment target system is also being implemented. In order to expand women’s participation in government committees, each ministry has been urged to reach a target rate of 40% of women in all committees from 2003 to 2007 according to the annual expansion plan.

Based on the Youth Development Act enacted in 1988, the Ministry of Culture & Tourism has established two institutions, the Korea Institute for Youth Development (KIYD) in 1989 and the Korea Youth Counseling Institute (KYCI) in 1990. The main objective of KIYD is to develop policies and programs that improve the quality of life for the young. The main objectives of these long-term and mid-term Youth Development Plans are to promote healthy activities and environment-friendly lifestyles for children and youth, to improve welfare assistance for disadvantaged youth and encourage their participation in environmental protection efforts, to expand adolescents’ social participation and information exchange networks on environmental issues, and to increase the chances of international exchange programs for the environmental consciousness of youth.

Programs and Projects:

A. Providing Adequate Shelter for All: The government has introduced public rental housing programmes supported by government finances for low-income groups. From 1989 to 1993, the Korea National Housing Corporation and local authorities constructed 19,000 permanent rental houses. In 1998, the Korean government started a National Rental Housing Program which provides 10~30 % of construction costs from government finances. This program will continue through 2012 when 1,120,000 national rental-housing units will be supplied to the Korean rental housing market.

B. Improving Human Settlement Management: The current social welfare system in the Republic of Korea consists of three components: social insurance (National Health Insurance, National Pension, Employment Insurance, Industrial Accident Compensation Insurance); public assistance (livelihood protection, educational aid, housing benefit, medical aid, veterans relief, disaster relief); and, social welfare services (for the disabled, the elderly, children, women and mentally handicapped). Accomplishments in this area include: introduction of an Employment Insurance System (1995) and subsequent expansion to cover all workplaces (1998); creation of a rural regional pension plan (1995); enforcement of the National Basic Livelihood Security Act (2000) to secure a minimum standard of living for the poor; introduction of an urban regional pension plan and a non-contributory pension plan (1999);

and, increasing the maximum number of days covered by medical insurance to one full year for the entire population (2000):

C. Promoting Sustainable Land-Use Planning and Management: The Fourth Comprehensive National Territory Plan aims to establish a full-scale management system enhancing harmony between the development and conservation of the national land environment. First, the plan puts priority on the conservation and restoration of mountain, river, and coastal ecosystems. Second, the plan is designed to provide a clean and sound living environment by purifying and preventing environmental pollution. Third, in order to provide a clean water supply, an integrated foundation for water resource management should be built by zone to secure the quality of water resources. Three National Territory Plans have been implemented since the 1970s. The First Plan (1972-1981) focused on establishing developmental centers as the foundation for rapid economic growth; the Second Plan (1982-1991) sought to control the excessive population concentration in the capital region and to foster regional development by balancing population distribution throughout the nation and by improving the living environment; and the Third Plan (1992-1999) aimed to improve public welfare and conserve the natural environment by dispersing development regionally and nurturing local industrial belts. As urbanization increased with economic growth, an immediate necessity for housing and industrial sites arose, and various policies were implemented to efficiently supply housing and industrial complexes.

Despite efforts to implement systematic and environmentally friendly land use plans, however, side effects, such as difficulties in developing suburbs and traffic-related problems, have arisen. Unlike the previous plans, the Fourth Plan (2000-2020) sets active conservation of the national land environment as the main goal for effective sustainable development planning. All sectors of national planning, including SOC construction, urban development, industrial development, and tourism development, are geared toward creating an environmentally friendly nation. Food security: The authorized exclusive use zone was extended, while that for exclusive agricultural use was diminished. That is, when building barns or rural residences not directly related to crop production within the Agriculture Promotion District, a permit is required instead of the routine report system. Rural development: The Fourth Comprehensive National Territory Plan aims to expand environmentally friendly crop production by fostering organic farming, actively developing overseas agricultural markets, and developing new rural towns to meet the demand for rural housing and recreation.

Viability of rural areas: To promote urban-rural exchanges and boost rural household income, Green Business and Green Tourism are to be launched by expanding tourist farms. Environmental aspects: The Framework Act on Environment Policy and water and air pollution-related regulations is being amended with the objective of harmonizing environmental and developmental priorities in national land planning. From 1998 to 2007, the Korea Forest Service has been implementing the Fourth Forest Development Plan. In this plan, the Korea Forest Service will complete a government-initiated reforestation program and switch to a forest management program based on the self-regulation and promotion of forest owners. To meet the diverse social demand from forests, the primary objective of the Fourth Plan is to establish and develop sustainable forest management. In addition, the Korea Forest Service will endeavor to achieve the following goals: developing valuable forest resources; fostering a competitive forest industry; and promoting a healthy and pleasant forest environment for the public. In order to achieve these goals, the Korea Forest Service will improve the national forest land management system through environmentally sound utilization of forests and forest management in accordance with its purpose and function. To encourage national and private forest management, the Korea Forest Service will introduce a proxy management system managing private forests through management agencies, and will intensively train foresters in forest management. The Korea Forest Service will also support sustainable management by establishing commercial forest plantations and expanding their management infrastructure, enhancing the competitiveness of forest industries by promoting a timber industry and marketing system, and strengthening conservation and management of forest ecosystems. Furthermore, the Service will establish

an effective prevention system for forest disasters, strengthen urban forest management for urban living environments, and create forest recreation areas based on the special characteristics of the regions, and provide training sites for youth. Finally, the Korea Forest Service will expand its mountain village development programs, prepare for the unification of Korea, and promote international cooperation on forestry-related issues and the development of overseas plantations.

Integrated rural development projects initiated by the Korean Forest Service have been under progress since 1995, with the objectives of improving living conditions, promoting eco-tourism, and raising the income level by developing new sources of income, including forest byproducts in forest communities. These projects are expected to achieve balanced and harmonized national land use and promote sustainable development in secluded mountainous areas in the Republic of Korea. The measures to achieve sustainable rural communities can be divided into four categories: (1) developing diverse income sources under the consideration of each mountain village's physical, social, and economic characteristics; (2) improving forestry and agricultural production conditions; (3) reforming the living environment including transportation, telecommunications, public health, clean water, and sewage systems; and (4) improving the aesthetic appeal and scenery of villages situated within forests. Through these measures it will be possible to obtain increased public awareness for mountain village areas and to promote a healthy and comfortable way of life.

In 1999, the state initiated a direct payment program for farming in environment protection areas that exercise environmentally-friendly farming practices. The government's major actions relating to the agricultural and fisheries sectors include: collecting background information required to set national nutritional targets and establishing a policy plan for food supply and demand through the annual National Nutritional Survey; disseminating, on a regular basis, information on agricultural prospects derived from surveys and analyses of weather forecasts, statistical data on areas where crops were planted, food production, stocks and consumption, and foreign market development; stockpiling major food crops for food security and to stabilize prices for agricultural and fisheries products; setting up and implementing a "Comprehensive Plan for Rice Industry Development" to ensure self-sufficiency in rice while enacting the Sustainable Agriculture Promotion Act in late 1997; promoting environmentally-friendly agricultural practices and establishing a National Strategy for Biological Diversity in December 1997; setting up an "Agro-Environmental Policy towards the 21st Century" in July 1996 and, in accordance with this policy, decreasing the use of pesticides and fertilizers while expanding sewage and wastewater treatment facilities in rural areas to ensure that pollution problems arising from agricultural production are effectively addressed; formulating policy measures to maintain a food production base such as projects for farmland maintenance, and improving irrigation and drainage; executing various projects to develop and conserve a variety of animals and plants by collecting and improving various genetic resources for food and agriculture; implementing the commitments under the UR Agreement on Agriculture, while working to harmonize sanitary and phytosanitary inspection measures with relevant international standards; and striving to protect domestic people, animals and plants from the unexpected outbreaks and proliferation of exotic animal, plant, and food-borne diseases.

D. Promoting the Integrated Provision of Environmental Infrastructure: water, sanitation, drainage and solid waste management: Please refer to the Freshwater and Sanitation Profiles.

E. Promoting Sustainable Energy and Transport Systems in Human Settlements: Direct and government-funded subsidies are widely used to defray the higher, up-front capital costs of renewable technologies. For example, the Local Energy Programme, under which MOCIE provides local governments with subsidies to effectively implement the installation of facilities using renewable energy such as photovoltaic, wind power, etc., significantly contributes to the installation of facilities using renewable energy. This program consists of 2 sub-programs: the Infrastructure Build-up Program and the Demonstration Project to invest in the energy efficient facilities or the utilization of the new and

renewable energy with great potential in the local area, provided with 70% of capital costs. The Combined Heat & Power Program provides mass energy consumers with heat and electricity through cogeneration including municipal waste incineration and industrial waste heat. Its two major areas are: District Heating & Cooling; and Industrial Complex Combined Heat & Power (CHP). To promote the program, the government enacted the Integrated Energy Supply Act in 1991 and has been providing the suppliers and users with tax incentives, environmental regulation relaxation and long-term low interest loans of US\$ 1,710 million since 1985. As recently as 2000, District Heating was provided to 1,239,228 households in 21 districts, covering 9.9% of total households. 31 buildings are being supplied with district cooling. In addition, 20 companies are providing Combined Heat & Power (CHP) in 21 industrial complexes. Energy Auditing provided by MOCIE, is an information transfer program to assist energy consumers in understanding and employing technologies and practices to use energy more efficiently. A series of projects have been developed to support local governments in implementing measures to rationalize energy-use. The government initiated the Energy Saving Performance Contracting Program to help the public buildings sector reduce energy consumption. In addition, the government made it a priority for the central government agencies and local administrations to use energy efficient equipment and appliances such as high-efficiency motors and 26 mm slim-type fluorescent lamps. The government continues to monitor the effects of such energy-saving activities and to provide related information through workshops and other public campaigns. Through a Voluntary Agreement, an energy-intensive company sets a goal for GHG reduction and a concrete action plan. The government then supports the company through various measures.

In accordance with the Transportation System Efficiency Act, enacted in February 1999, a 20-year National Intermodal Transportation Plan was established so that the functions and features of intermodal transportation could achieve maximum effects. A 5-year mid-term Transportation Infrastructure Investment Plan was also drawn up at the same time for more efficient implementation of the long-term plan. Expansion of transport infrastructures is being carried out in accordance with the National Intermodal Transportation Plan, which is a 20-year long-term plan in infrastructure expansions as follows: The Government is trying to adopt new transport concepts, such as a light railway system. Major programs undertaken include: better meeting the commercial, private, and public needs for mobility in both urban and rural areas: promoting village shuttle buses and other supplementary buses or bus services in remote areas; and promoting traffic efficiency, such as reduction of heavy traffic hours, provision of mass transport modes, etc. Policies implemented in this area include strengthening government's financial support to mass public transportation, assessing inner-city traffic congestion fees, and designating special management zones in areas prone to traffic congestion; and, preparing for buses to switch over from diesel fuel to CNG. Other policies include tax incentives and parking discounts given to compact cars; promoting non-motorized modes of transport, such as cycle paths and footpaths. Bicycle routes and parking facilities have been expanded. In particular, more bicycle parking facilities are being added near subway stations in order to facilitate transfer from the subway to a bicycle. Furthermore, local governments are strongly recommended to close the streets to cars on weekends to promote a change over from automobile-oriented to pedestrian-oriented transport policies. There are major investment projects in the transport sector in Korea. Among the major investment projects from 1996 to 2001, the total length of new road construction was 1,476km and the expansion of roads was 463.6km.

Among currently operating highways, 4-10 lane expansions have been made on congested sections. The West Coast Expressway (total length: 340km) was newly constructed to enhance the connection between major cities. To reduce city traffic, 127km of road has already been constructed in suburban Seoul to serve as the beltway of the capital city, and 36.3km is currently being constructed. The total length of railway expansion is 1,362.7km. In the seaport sector, the Mega Hub Port development will go ahead according to the Two Port system plan. The new Gaduckdo port will possess 24 berths with a 4.6 million container handling capacity per year. The new Gwangyang port will possess 24 berths with a 5.28 million container handling capacity per year. There are also regional base port construction projects currently

underway. The Asan port, for example, will be developed by 2011 for the purpose of serving as an alternate port for the mobilization of material resources and as a trading base with China. In the airport sector, the first phase of the Incheon International Airport development plan was successfully completed in 2001 with the construction of two runways, a passenger terminal building, a cargo building and other facilities along with a direct expressway linking Seoul to the airport. The second phase is to build an additional highway by 2011 as well as two additional runways and passenger concourses. Access roads to the airport will be expanded to meet delivery transport demands. Regional airport expansion plan is being implemented in a number of locations.

F. Promoting Human Settlement Planning and Management in Disaster-Prone Areas: No information available.

G. Promoting Sustainable Construction Activities: Information is available at the websites of: the Ministry of Environment (MOE) <www.me.go.kr>; the Ministry of Commerce, Industry and Energy (MOCIE) <www.mocie.go.kr>.

H. Promoting Human Resource Development and Capacity-Building for Human Settlement Development: Since 2000, various programs have been implemented to provide research funding for distinguished women scientists and to increase job opportunities for women scientists.

Status: The percentage of the population living in absolute poverty in the Republic of Korea has drastically decreased due to rapid economic growth. Absolute poverty comprised approximately 40.9 % of the total population in 1965; within three decades, it had decreased to 3.9 % in 1995. However, the economic crisis at the end of 1997 brought massive unemployment and caused a great increase in the poor and the number of Livelihood Protection recipients. Through this crisis, poverty was recognized as a huge social problem. Therefore, it was necessary to expand and reinforce the social safety net in order to cope with this problem. Current public assistance programs include livelihood aid, health care, educational assistance, funeral expense support, small business loans, and job creation projects, among others. Living expenses are provided for households whose income does not meet the minimum cost of living, regardless of age or ability to work. The number of recipients receiving these living expenses increased approximately three times from 540 thousand persons in 1999 to 1,540 thousand persons in 2000. After carefully assessing a recipient's needs to work--among those who are able to work--including desire for work experience, age, health, and family situation, a self-support aid plan for each household is then made by a public social worker. After that, the direction and the kind of services necessary for self-support are determined, and services such as job search assistance, vocational training, job placement and financing for self-reliance are provided.

The share of firewood, which had accounted for nearly 20% of the Republic of Korea's total energy consumption in the early 1970s, has been reduced to less than 1% in 1999. Since it was introduced in the mid-1990s, LNG has grown to cover 11.1% of total energy consumption in 2002. The Republic of Korea launched a nuclear energy program in the late 1970s and currently supplies 14.2% of its energy needs through nuclear power generation. In 2002, the Republic of Korea paid US\$ 31.9 billion for energy imports, which was equivalent to 21.0% of its total imports. The Republic of Korea, lacking an endowment of natural resources, depends on overseas imports for over 97% of its energy supply. In 2000, the Republic of Korea was ranked as the 10th largest energy consumer in the world as well as the 4th largest oil importer. New and renewable energy accounted for 1.4% (2,922 thousand tons of oil equivalent) of total energy supply as of the end of 2002. Municipal and industrial waste represents 93.5% of total new and renewable energy. Although solar thermal water heating units have successfully been commercialized and deployed, they are still less competitive in the energy market and thus account for only 1.2% of total new and renewable energy. Also photovoltaic system technologies have completed the basic research phase and have now entered the utilization phase, expanding the use of photovoltaic power

systems in isolated small islands. However, due to a variety of market barriers, only 0.2% of the total renewable energy comes from photovoltaic systems.

At the end of 2002, the total length of the roads was 96,037 km, of which 76.7% were paved. The total number of vehicles was 13,949 thousand. This figure represented a 5,480 thousand increase from 1995. Passenger cars totaled 9,737 thousand, trucks 2,894 thousand, and buses 1,275 thousand. The volume of traffic as of 2002 was 5,069 million people, a 1,300 million decrease compared to 1995. Among total traffic volume, intercity volume was highest at 4,523 million people, city buses at about 329 million people, charter buses at 175 million people and express buses at 42 million people. Truck traffic volume was about 584 million tons as of 2002. Compared to 1995, this was a 176 million ton increase. Among total traffic volume, district cargo ranked first at 584 million tons and route cargo volume was 3.8 million tons. The total length of railways was 3,129 km as of 2002, which was an 28 km increase compared to 1995. Electrified railway routes were 667.5 km in 2002, which was a 112 km increase compared to 555 km in 1995. Public transport services include buses (express, urban, and shuttle), subways, and taxis. An express bus runs along major corridors of the city, as well as to some suburban cities from urban centers. A city bus is a regular bus, which runs between residential areas usually, with many stops. A community bus is a small feeder bus, which runs short routes. Demand for shuttle buses has increased. At present, 394 private bus companies operate about 3,242 buses on 818 different bus routes. Efforts to reduce motor vehicle emissions include: reinforcing traffic inducement charges aimed at stimulating usage of mass transport, establishing and implementing traffic demand management measures along with financial assistance to stimulate the bus industry, and increasing the central government's subsidies to local governments for subway construction (from 25-30% to about 40-50%). The traffic effects evaluation system is utilized to formulate transportation measures when implementing large-scale road, railway and housing projects.

Although increasing supplies have significantly eased housing shortage problems, the problem persists, especially in highly populated urban areas. The widening gap in the income level, disparity of living conditions in different regions, and sudden increases in housing prices and rent have caused increasing financial burdens on non-homeowners. Because of the continuing trend towards a nuclear family unit and an increasing population, a rational plan applicable to wide areas was required to meet the increased demands for housing. The government responded by adopting a number of plans and policies to optimize housing supplies. The national rental houses help low-income people by allowing them to pay only 40-50 % of private rental price and giving them the right to prolong the contract. By the end of the 2002, Korea achieved its goal of ensuring a housing supply of 100%. Recently, the government also unveiled plans to construct 5,000,000 housing units between 2003 and 2012 (annually 500,000 units). This plan makes it possible to change the focus of the government policies from the quantity of housing to the quality of the dwellings. Comprehensive plans are underway to link traffic management with urban planning. For example, the development of multi-centered cities will disperse the concentration of traffic throughout the area. Instead of having people flocking to one area for work, school and/or for recreational purposes, financial and shopping districts, schools, etc. will be dispersed throughout the city and the suburbs to alleviate human traffic as well as car traffic. In addition, the construction of self-sufficient cities outside Seoul will allow people to work and live in the cities without commuting to Seoul for their livelihood.

In Korea, as of 2000, forestland was about 6.4 million ha, representing 65% of total land area. However, the forestland per capita is very low, 0.15 ha, only 20% of the world average. The total stock volume is 407 million m³ and the average stock volume per ha is estimated to be 63 m³. Forestlands are classified as national, public, and private forests by ownership and as reserved and semi-reserved forests by use. National forests account for 22% of the total forestland and five National Forest Offices cover most of them. Forests owned by local governments and public organizations such as educational institutions are classified as public forests. Public forests account for about 8% of the total forestland and only 8% of the

total stock volume. Private forests account for 70% of the total forestland. They are owned by individuals and private organizations such as peoples' parties, families, temples, and cooperative groups.

During the process of rapid industrialization and urbanization in Korean society that has taken place over the last two decades, mountain areas covered 46% of the total land area of the country. Those areas are often depopulated, have an aging population, and are lagging in social infrastructure. In response, the Korean government has initiated various measures designed to enhance the economic, social, and physical conditions of mountain villages since 1995. These measures include the promotion of forestry, which is the main industry of such areas, in order to secure employment opportunities and the improvement of the living environment. The Republic of Korea is a typically mountainous country where forests account for 65% of total landmass. Since the early 20th century, forests have been devastated through selective and illegal cutting. Recently, public demand for various benefits provided by forests, including watershed management and recreational sites, has increased, thereby pressuring the government to implement sustainable mountain development.

The Korean government has adopted various methods to maintain and improve basic agricultural conditions (for example, soil and water) while restricting agricultural land diversion. It has also worked to maximize the positive effects of agriculture on the environment and to develop agriculture as a pollution filtering industry. The Republic of Korea is located in a temperate monsoon climate zone where the average annual rainfall of 1,283mm is considered adequate. However, two thirds of the rainfall is concentrated during the summer and there are frequent early or pre-summer droughts, which occur at the peak of water demand for agriculture. As a result of the government's continuous efforts to achieve a ideal nationwide irrigation system, a sound production base for rice has been established. A total of 880,000 hectares or 77% of the total paddy rice area is now irrigated by irrigation facilities. The government has constructed drainage facilities in the areas that are subject to habitual flooding. Approximately 234,560 hectares of agricultural land was prone to flooding, but about 43% of the total area was protected from inundation in 2000. The remainder will be completely protected by 2009.

Capacity Building, Education, Training and Awareness-Raising: With the establishment of the National Basic Livelihood Security System, the basic livelihood for the low-income class earning less than the minimum cost of living is institutionally secured and poverty counter-measures for those who are able to work have been established. The System provides systematic self-support services so that recipients who have the ability to work can free themselves from poverty. The Self-support Service is a "step-by-step capacity development strategy" which gradually teaches self-sufficiency and job skills to the poor through programs such as consulting, job training, job introducing etc. In order to successfully and efficiently provide these services, the government has increased the number of self-support guardian institutes and established self-support information centers. The government plans to gradually increase the number of public social workers as well.

The Green Energy Family (GEF) Movement, started in 1995, is a nationwide voluntary partnership movement among citizens, hundreds of companies, NGOs and the press with the aim of enhancing energy efficiency and reducing consumer costs. Through this movement, companies can reduce energy costs, while energy providers can lessen the burden of expanding energy supply capacity. This public movement also initiated the Green Lighting, Green Motor and Green Energy Design Programs. MOCIE has produced and distributed VTR cassettes, movies and various PR materials. The government also organizes exhibitions and diverse cultural events on a regional basis to publicize successful examples of energy conservation. November is designated as "Energy Conservation Month and the first Friday of every month is designated as "Energy Conservation Day." An energy conservation exhibition, ENCONEX, has been annually organized since 1975 to propagate up-to-date energy conservation technologies and equipment at home and abroad, and to provide information on specified technologies for interested companies in the industry, buildings, and transportation sectors. The Energy Conservation

Convention has also been held biennially to encourage energy conservation among civilians and to award those who have made considerable contributions to the cause. The Energy Pavilion in the Exposition Science Park functions as an interactive guide to all aspects of energy. In 2000, 201,829 people visited this pavilion. Training courses are offered to operate energy equipment subject to certification inspection, operators of gas boilers and certified energy managers. As authorized by the law, KEMCO is in charge of training programs for energy managers and operators of energy equipment and facilities in order to upgrade their skills as well as enhance their safety control proficiency. The Ministry of Education designated 16 elementary and 16 middle schools as "Demonstration Energy Conservation Schools" in 2002. In addition to financial assistance of about US\$ 5,385 per school, the government supports educational aids such as books, videotapes and diskettes for these designated schools. There are other training and educational courses for the staffs of cooperative organizations in the field of energy conservation, the staffs in charge of PR and education in energy-related organizations, managers of energy appliances manufacturing companies and managers of outstanding companies in energy management.

With regard to measures taken to encourage the use of public transportation, car-pooling, non-motorized transport, etc.: bus-only lanes have been expanded, and traffic congestion fees have been waived for high occupancy vehicles; every Monday is designated as Public Transportation Day and people are encouraged to use public transportation; areas have been expanded where transport cards can be used for both buses and subways in order to make transfers between buses and subways more convenient; and, elevators and moving walks have been added inside subway stations, in addition to bicycle parking facilities near subway stations. With regard to measures taken to educate the public on traffic safety, the Children's Traffic Park has been opened to educate children on traffic safety; traffic safety education has been introduced into the curriculum at primary and secondary schools; rehabilitative education has been introduced, which is mandatory for traffic violators and drunk drivers. A mutual association has been set up so that transport companies can be responsible for their own insurance in cases of accidents involving buses, taxis and trucks. However, many disputes have arisen between accident victims and mutual associations that are responsible for insurance settlements. As a result, a dispute settlements committee was set up as a governmental organization to coordinate and mediate the disputes. In the public sector, a private car restriction system exists where drivers are restricted from using their cars every 10 days.

Citizen groups are also becoming more actively involved in forestry issues by means of a national campaign called Forests for Life. The Movement has ignited the aggressive involvement of citizen groups in forestry issues and has engendered other citizens groups such as the Northeast Asia Forest Forum, Forests for Peace, and the School Yard Forest Movement. These forest movements have been established as a movement to reform Korean society. Over two million people privately own 70% of the forestland in the Republic of Korea. The active management of small-scale private forests is, therefore, critical in achieving sustainable forest management. To promote safe forest management, projects for cooperative management of private forests and multi-purpose management related to short-term income sources are in progress around the country, including mushrooms, mountain vegetables, bee-keeping, and wild flowers for improving the environment in rural communities. The Forest Works Training Center was established in 1982 as part of the Korea-Germany Forest Management Project to train forestry workers in the professional technical discipline of forestry activities. The center's aim is to train the forestry workers as professional forest technicians qualified for forest management under the National Techniques Qualification Act. These forest experts are conducting various forest activities such as reforestation, tending, and harvesting and subsequently contributing to sustainable forest management. Recently, the Korean government has developed forest-related environmental education programs and forest activities. These programs will be expanded upon in the near future. The voluntary participation and self-awareness of the mountain villagers is the foundation of the mountain-region development project. There are many opportunities for the local residents to participate in this project including the mountain village

development committee, village meetings, and public hearings. The committee is composed of the representatives of villages, government officials, planners, and relevant experts.

Since 1998, the government has carried out projects nationwide to promote environmentally-friendly and sustainable agriculture. To accomplish this, Environmentally-friendly Agriculture Promotion Zones and Environmentally-friendly Agriculture Model Villages have been established. Also, the Korean government has implemented various programs to train farmers on IPM (Integrated Pest Management), which addresses organic farming and low-input sustainable agricultural techniques. Soil conditioners are distributed periodically to farmers to improve soil quality. Loans and subsidies are also given to entitled farmers for the projects designed to develop sustainable agriculture. Public education and mass media measures on sustainable agriculture focus on the importance and ways of environmentally-friendly farming. The consumer's role in developing sustainable agriculture is also emphasized. Recently, the Korean government developed a new project to strengthen cooperation among farmers, consumers, and policy-makers. In Korea, the government operates 150 pest-forecasting sites and 1,403 field observation sites for close observation of pest outbreaks, and periodically educating farmers so that they can abide by pesticide guidelines that contain information on crops, pests, application rates, frequency, and pre-harvest pesticide application periods. Through this education, the government aims to minimize the misuse of pesticides. The IPM Programme has provided IPM training for extension service staff members and farmers. Since 1997, through the IPM Programme, the government has offered IPM validation and training in nine provinces on non-rice crops, including greenhouse crops, potatoes, peppers, apples, persimmons, watermelons, pears, and citrus fruits. In close cooperation with farmers organizations, the Korean government is conducting a nationwide campaign called the Green Field Movement to encourage the cultivation of winter feed crops and green manure crops. Private environmental organizations conduct many education programs for students and youth on the state of fauna and flora of specific regions. The Korea National Tourism Organization carried out research to determine how to promote sustainable tourism. Two publications detailing the findings of this research are: Environmentally Sustainable Tourism (1997), and Directions and Prospects of Eco-Tourism Development (1996).

Information: Information about poverty is available from the website of the Ministry of Health and Welfare (MOHW) at: www.mohw.go.kr. Processed statistical data and information are published and circulated in the form of print-outs and books so that end-users may have access to the basic data for their energy conservation business. Through its website, (www.mocie.go.kr), MOCIE offers the latest energy information. MOCIE provides a total business service network named "Inno-Net" (<http://innonet.ne.kr>) to strengthen the competitiveness of small- and medium-sized companies. KEMCO publishes and distributes periodicals on useful and diverse new energy conservation technologies and systems, successful examples of corporate energy conservation, effective energy conservation government policy programs, etc., to facilitate information exchange among concerned organizations. "Energy Management," a monthly staple magazine of KEMCO, has a circulation of some 7,000 a month. About 7,000 copies of the "Energy Conservation Handbook", containing information such as energy policies and the energy situation at home and abroad are biennially published. KEMCO also publishes several other books including the "Energy Products Directory", "Statute Book of Rational Energy Utilization," "Energy Consumption Statistics," and "Technical Information Pamphlet". Local governments are studying traffic volume and traveling speed. The Ministry of Construction and Transportation (MOCT) conducts traffic studies for expressways, national highways, government-supported local roads, and other major local roads. Aside from this, data on passenger and commodity movements between and within regions is important for analyzing transport policies and plans. In order to set up a transportation database, MOCT has been carrying out the National Transportation Database Project since 1998 under the Transportation System Efficiency Act (TEA). The Database Project involves: surveys of the origins and destinations of passengers and data on the flow of commodities, updated every five years, on the basis of field surveys; traffic volumes and travel speed data on expressways, national highways, government-supported local roads., (this data is surveyed through a permanent traffic recorder or manually, and is updated every

year); surveys of traffic generation units after the facilities are classified by use (this data is collected from cities with populations exceeding 300,000); transportation-purpose maps that are built based on the National Geographic Information System (these maps have many features required for the application of ITS technologies and network analyses); and, analysis of transportation policies and trends worldwide. All of this data is analyzed, transformed into database format, maintained, and distributed to entitled users. Information related to the transportation database is available at the Transport Policy Office section of the MOCT homepage (www.moct.go.kr) and at the National Transportation Database homepage (www.ktdb.go.kr).

The National Geographic Information System Project is under way at the national level. It aims to use national lands efficiently and manage national spatial information effectively in order to prevent various disasters. The project's activities during the first stage (1995-2000) covered the development of topological maps, common thematic maps, and computerized cadastral maps. It also involved computerization of underground facilities, development of GIS application systems for public purposes, development of GIS-related technology, training of professional staff in GIS, standardization of GIS, and assistance for research projects on national GIS. The project activities during the second stage have been divided into the following four major sectors: framework establishment, data production, data distribution, and data application.

Research and Technologies: Information on social welfare policies is available from the website of MOHW at: www.mohw.go.kr. MOCIE is supporting R&D and the dissemination of energy-efficient technologies, new and renewable energy technologies and clean energy technologies. The Korea Energy Economics Institute (KEEI), supported by MOCIE, is a national principal energy policy research organization that provides a broad range of research works on energy policy options to the government, industry and non-profit organizations faced with energy challenges. 50 programs are currently underway. Photovoltaic: In the 1980s, photovoltaic systems for telecommunications, navigation lights, and measurement equipment, were installed for demonstration. Demonstration of a monocrystalline silicon photovoltaic module was achieved through the R&D programme. In addition the development of operations and maintenance technology has facilitated photovoltaic systems deployment. Photovoltaic systems have proven to be the most appropriate power systems for small islands with less than 50 households. In the 1990s, rural electrification by photovoltaic systems was initiated to provide remote areas with electricity. Total installed capacity of photovoltaic systems amounted to 5.4 MWp by 2002. Still, however, more R&D investment will be needed to make photovoltaic systems competitive.

Solar Thermal Energy: The government is making efforts to broaden the residential use of solar water heating systems in rural areas and small- and medium-sized cities. Currently, low-temperature solar thermal systems are commercially available and medium-high solar collector systems are under development. 186,735 residential solar thermal water heater units had been installed as of 2002. There is a large market potential for solar thermal energy in fish farming, swimming pools, process heat, etc.

Wind Power: Wind energy resources are available along coasts, on high mountains and on small islands. By the end of 2002, 86 wind units had been installed with a total capacity of 13.3MW. A wind power project on Jeju Island will be used as benchmark for renewable energy deployment in Korea. Since October 2000, 16 units have been in operation and 3 units are under construction. In addition, a feasibility study was conducted for power plants using both photovoltaic and wind power on small islands which do not have access to the national electricity power grid system. Meanwhile, the private sector is involved in the development of blade and induction generator technology.

Renewable Energy and Biomass: The government continues to disseminate municipal solid waste incinerators linked with district heating and industrial waste incinerators. In 1993, the Waste Management Law was revised to encourage industrial complexes to use waste as a feedstock for waste heat production.

New industrial complexes with areas of greater than 500,000 m² are required to install collective industrial incinerators. However, the installation of incinerators has caused complaints about air pollution from local communities, requiring significant prevention measures and local promotional campaigns. In the future, the government will promote industrial incinerators to solve waste disposal problems as well as to make most of the heat energy generated from waste incineration. Landfill gas recovery has significant potential but is still at a relatively primitive state of development. Methane gas recovery from agricultural and industrial organic waste is also available, totaling 326-steam ton/day at 102 facilities as of the end of 2002. In the meantime, as an alternative to fuel wood, use of fuels made from rice husks, which is one of the largest sources of waste, as generated from rice paddies, amounted to 42.8 47.6 thousand toe.

Currently, renewable energy is not economically feasible in Korea either due to its cost, as is the case for photovoltaic energy and wind power, or for the difficulty of finding appropriate sites, as is the case for hydropower projects and nuclear energy. To meet this challenge, the government has established goals for energy technology that take into consideration the current technological levels, available funds and market potential. In addition, the government has selected 21 high-priority programs to promote early commercialization and deployment and to make R & D programs more effectively address the following: high energy saving potential; environmental friendliness; and high initial capital costs which increase the risk for private investment. MOCT plans to strongly recommend the use of data from the national transportation database in the study of major transport investment projects. The database is currently available free of charge to transport academics, industry professionals and the public. The Korea Transport Institute (KOTI), a government-funded research agency, provides recommendations and alternatives for the nation's transport policy and is assisting in the creation of an optimal transport system through specialized research and technical innovation. KOTI's most recent research activities include research on policies for national, metropolitan, and local transport systems, strategies for strengthening Korea's transport industry, deployment of the Intelligent Transport System, and the creation of trans-national transport networks in the Northeast Asian region to make Korea the transport and logistics hub of the region. Based on this research, KOTI publishes about 30 to 40 reports a year.

Financing: The people and the government of the Republic of Korea recognize that poverty and financial hardship in developing countries are major impediments to sustainable development. To support developing countries, the Republic of Korea established the Economic Development Cooperation Fund in 1987 and the Korea International Cooperation Agency (KOICA) in 1991. Some 1.5% of GDP was expended for social security in 2000, which comprised 9.1% of the central government's budget. The proportion of resources for health and welfare in the government budget has been rapidly growing in recent years to implement various social security programs, such as health insurance plans, the National Pension Scheme, etc. The budget of MOHW in 2001 amounted to 7.5 trillion won (approximately US\$ 5.7 billion). Since 1975, the government has sponsored private fund programs to help those in need. For example, in 1998, the Joint Social Welfare Fund was established to continue such efforts. There are two categories in the Joint Social Welfare Fund: first, fund-raising at the beginning and the end of the year and second, year-round fund raising. There has been a substantial increase in funds due to corporate donations from large companies. The fund is used for emergency aid programs and designated trust programs. Korea's energy taxation system was revised at the beginning of July 2000 to enhance the efficiency of energy consumption and to promote the protection of the environment. The tax rate on light oil and kerosene will continue to be raised until 2006 when it will have attained a level that is 1.5 or 2 times that of 2001.

The government has provided long-term and low interest loans from the Fund for the Rational Use of Energy along with tax incentives for energy efficiency and conservation investments. KEMCO, with funding from the MOCIE, is in charge of its management and monitoring. The Fund supports the installation of energy conservation facilities, which include cogeneration facilities for industry & large buildings, production of high-efficiency products, non-electric cooling systems, installation of energy

conservation facilities, regional energy development projects and energy service companies. The types of requests eligible for loans include: purchase of the proper facilities and their incidental facilities and equipment; installation and retrofit works; design and superintendence; test running of the facilities; and, expenses for the purchase of land and for erecting buildings which do not contain construction indispensable to the installation of the facilities. The expense of purchasing the building sites for installing facilities is funded for mass energy supply projects and the expense of feasibility studies is funded for regional energy development projects by local governments. Operations costs are confined to those expenses needed for the operation of one-rotation (3 months) of the facilities on the basis of the annual or estimated sales of the products produced by the facilities.

The loans for installing energy-saving facilities or equipment in most cases have a 3- to 5-year grace period and a 5-year repayment period with 5.5-7.5 % interest rates, which are about half the market or prime rates. Up to 90-100% of investment money can be provided to the applicants. The maximum amount eligible for industrial energy-saving facilities and VA is: 3 billion won per project; 5 billion won per project for energy conservation companies (ESCOs) and regional energy development; 1 billion won for energy-saving facilities in building and transportation; 10 million won per house for home insulation retrofit for housing. Funds are available to both public and private sector companies. The government provides tax incentives for energy efficient investments. Since 1997, a 5% income tax credit has been applied for the replacement of old industrial kilns, installation of energy-saving facilities, alternative energy facilities, and other facilities which are assessed to save more than 10% of energy consumption. The Energy Service Company invests in energy utilizing facilities with a guarantee of performance and later collects the invested capital and profit from the cost of the saved energy. As of 2000, 96 companies are registered as energy conservation companies (ESCO). The government has supported ESCOs with US\$ 54 million of long-term low-interest rate loans and has triggered market development by demonstration projects and procurements in the public sector. To encourage the installation of energy efficient equipment and facilities, the government funds US\$ 330 million a year with long-term, low-interest for integrated energy supply, energy efficient facility installation, alternative energy dissemination, and housing insulation. Furthermore, it provides ESCOs with initial capital investment.

The “Special Account for Transport Facilities” has been set up at MOCT for construction of the transportation infrastructure. This special account consists of revenues from fuel taxes (gasoline and diesel taxes), automobile consumption taxes, and airport/seaport service charges. This special account is further divided into five accounts: road, railroad, airport, port, and metropolitan area transport accounts. As part of the mass transit facilities, the construction and operation of subways is supported by the railroad account. Support for building public garages comes from the wide area transport account. In addition, the Special Account loans money to the private sector when fund support is needed to upgrade passenger terminals. It has been difficult to induce private investment in the light railway projects, because of low government support. The government, therefore, in an effort to promote private investment, has raised its support rate within 40% of the construction cost along with the land costs. At present, preferred proposals for Seoul-Hanam and Busan-Gimhae lines, which are being implemented by MOCT as pilot projects, have been selected and negotiations are in progress. These two pilot projects are scheduled to be completed in 2005. The Korea Forest Service will invest about US\$ 591 million including private sector investment by 2007, in order to enhance the economic, social, and physical conditions of mountain villages.

Cooperation: The Republic of Korea will make efforts to gradually increase Official Development Assistance (ODA) and unconditional aid, in particular to the Least Developing Countries (LDCs) according to its economic condition and capacity. With regard to the technical assistance programs, Korea made a commitment to participate in the DDA global trust fund by contributing US\$ 300,000 and will study various plans to increase its contribution up to US\$ 1 million in the long-term. Through the KOICA program, the aim of which is to train workers from developing countries, Korea has invited officials in

charge of trade from developing countries and conducted a study related to international trade laws and the WTO. In addition, Korea will reinforce its training assistance by sharing our knowledge and experience with developing countries. A total of nine training programs for officials from developing countries took place from 1992 through 2001 in the area of duties. All totaled, 164 officials from 24 countries attended these programs. For developing countries to overcome poverty and pursue sustained economic development, reducing excessive external debt is a top priority. To this end, developing countries must effectively manage their external debt. Korea has provided comprehensive debt relief. Korea supports the international community's efforts to resolve the external debt issues of low-income countries, and is willing to participate in such endeavors. Korea completed two bilateral agreements with Indonesia and one with Pakistan, according to the Paris Club's agreement with the external debt restructuring of Indonesia and Pakistan. Currently, the Paris Club is negotiating a third agreement on debt-relief on Pakistan's official debts of US\$ 12.5 billion (as of November 2001), of which Korea's exposure amounts to US\$ 747 million.

KEMCO maintains close relationships with other relevant organizations abroad to exchange energy information and staff, and to develop collaborative programs such as for training, joint seminars or joint research. The Republic of Korea has actively participated in 11 programs established by IEA and energy cooperation in APEC. To promote environmentally-friendly city development plans and encourage the implementation of sustainable development plans in building new cities, the Republic of Korea will seek technical and financial support for planning and developing new cities from various international institutions, including the Sustainable Cities Program of Habitat II, the Regional Development Bank, and the World Bank. In collaboration with UNDP, Korea has implemented an Integrated Pest Management (IPM) Program since 1993. Through the exchange of IPM experts and information, the IPM and INM Program has strengthened cooperation systems within the Northeast Asian region in order to reduce crop losses caused by migratory pests and pesticide applications. There has been no official relationship between the global IPM Facility and the Korean government/Korean IPM Program. For trainees from Asian and African developing countries as well as countries in transition to market economies, the Republic of Korea provides education and training courses on agricultural and rural development. It also cooperates with various cost-sharing agricultural research and development projects with UN agencies, such as FAO, UNDP, IFAD, and CGIAR research centers (CIMMYT, CIP, ILRI, and IRRI).

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