Transport

1. Policies and progress on transport access

1.1 Policies and Implementation Progress on Transport Access

The "National Intermodal Transportation Network Plan (07-19)" aims to establish a main transport system that maximizes the features and advantages of each mode of transportation. In particular, the need for a gradual increase in the share of rail transport, which has relatively high transport efficiency, is emphasized.

* Rail (%): Passenger 13.6 ('01) → 26.2 ('19), Freight 7.6 ('01) → 15.8 ('19)
* Road (%): Passenger 83.0 ('01) → 71.5 ('19), Freight 65.9 ('01) → 64.3 ('19)

While the optimal transport stock per GDP is 45.5%, the current transport stock in Korea is 34.1% ('03), which indicates an absolute shortage. Consequently, the Korean government, within relevant legal frameworks such as the Transport Facilities Investment Estimation Guide, plans to promote a continuous investment expansion strategy and enhance investment priority order, overlapping investments, regulation capacity, and investment efficiency.

To build an integrated transportation system with transport nodes at its center, service railway lines including the 13 routes will be expanded to make all main railroads and main highways accessible from air/sea ports and inland logistics centers within 30 minutes. In addition, a large integrated transit hub center combining transit, commercial, and cultural facilities will be constructed and expanded.

To improve the mobility and accessibility of the main forms of ground transport, the main highway network will be expanded and improved to fill the needs of over 20 million cars, so that the highways can be accessed from anywhere in Korea within 30 minutes. In order to accomplish this, the government has long term plans to construct a 7x9 grid highway system (7 north-south roads, 9 east-west roads) and to complete 5 north-south roads and 8 East-West roads by 2019.

* Total Highway Expansion(㎞): 2,637 ('01)→ 5,462 ('19)

To ensure main road capacity, the government plans to increase the proportion of four-lane national roads by more than 50%, and also to expand and improve bypass roads in order to substitute for national roads (long-term required length: 1,308km). Furthermore, the government will expand and improve the ring highway system, introduce IT road maintenance, and build cutting-edge road and

transport systems, such as smart highways, in order to ease the traffic congestion caused by the growth of the capital and other major metropolitan cities.
To strengthen the competitiveness of railway transport, the government plans to build an X-shaped express railway network using the Kyeongbu and Honam express railways as its backbones, and to connect this network to the Eurasian continental railway network in the future. Main railway lines will be connected to express railway lines and a 6x6 grid network (6 North-South routes, 6 East-West routes) for trains with 180~200km/hr high running-speeds will also be constructed. Once the express railways are put into service, the government plans to convert the existing Kyeongbu and Honam lines into freight lines, and to automate and improve signal systems to construct an express freight rail network.

1.2 Enactment of Sustainable Transport Development Act and Promotion of Green Transportation Policy

Adopted this year, the "Sustainable Transport and Logistics Development Act" emphasizes the development of sustainable transportation/logistics systems that would allow the present generation, which is facing climate change and energy shortages, to enhance the growth potential of the future generation. It aims to shift the transport policy paradigm from the previous supplier-oriented policy that was focused on facility expansion to a new environmentally-friendly, people-oriented sustainable transportation policy that takes transportation vulnerabilities into account. The main points of the "Sustainable Transport and Logistics Development Act", which comprises 7 Chapters and 52 Articles, are summarized below:

First, for the systematic promotion of sustainable transportation and logistics policies under the mid and long-term visions and strategies, the Act requires the national and regional self-governing organizations to adopt and implement a 'National Strategy on Sustainable Transportation and Logistics' and a 'Regional Strategy on Sustainable Transportation and Logistics' every 10 years. These strategies must include energy consumption and greenhouse gas reduction goals, transport mode shifts and other related measures, and a supply (financing) plan for needed resources. In addition, to effectively reduce the emission of greenhouse gas from the transport and logistics sectors, the Act divides the country into 3 transportation and logistics zones (organization, city, and region), and provides that a total automobile travel policy is to be set and managed for each zone. With a clear grasp of the level of sustainable transportation and the logistics system in each zone, the promotion of policies that are appropriate to local conditions and the maximization of a policy's effectiveness become possible, by adopting investment that is tailored to local situations.

Second, the Act requires the government to adopt a sustainability management index and standards, and to regularly inspect and evaluate these in order to scientifically and reasonably administrate greenhouse gas reduction, energy use reduction, and green transport. It states that the sustainable management index must be comprised of the greenhouse gas emission amount, the traffic congestion level, the transport share structure, the energy use, and other factors, and management standards must indicate the correct level of goal achievement in detail. By establishing and examining the sustainability management index and standards, the Act ensures feedback for the policy through a quantitative policy effect analysis. It also requires the national and regional self-governing organizations to oversee the policy implementation through the index and the standard, and to propose a policy guideline for the establishment of a sustainable transport system. In particular, by placing regions that regularly perform poorly on the sustainability management index under special care, the promotion of an intensified program for a shift to a green transport system is expected.

Third, the Act introduces diverse programs to promote the shift to a sustainable transportation and logics system. One of these programs is the "Total Automobile Traffic Load System by Zones", which sets the total automobile traffic for each zone, and in accordance with a voluntary agreement between local governments and the state, gives administrative or financial incentives to the regional or local governments that successfully reduce the total automobile traffic.

Furthermore, taking into account green-gas emissions and energy consumption, the Act implements the "Modal Shift Agreement", which facilitates the shift from automobile to railway and coastal transport, and from private modes of travel to public transportation. This policy induces the state and local governments to reach an agreement concerning the modal shift with shippers and public transport users, and provides financial support when the agreement has been met. Other measures, including the development and maintenance of a greenhouse gas emission coefficient, price adjustment among transportation accounting social benefits, and a guideline for the construction of a city with a sustainable transportation system, are also adopted.

Fourth, the Act provides policy tools to stimulate the use of Non-Motorized Transport (NMT). A comprehensive plan (5-year period) that aims to increase the transport share of NMT is to be devised, and shall consist of an analysis of the present state and prospects of NMT, the objectives and general outline of the policy, and a plan for the increase in the transport share of NMT. Starting from the end of this year, The Ministry of Land, Transport, and Marine Affairs will install and build connection and transit systems in train stations, ports, and terminals for the use of NMT, and will actively implement public information

campaigns and promotional activities to stimulate walking and cycling. Measures intended for the systematic revitalization of pedestrian transportation, such as designating a "Pedestrian's Day" and adopting a pedestrian transport policy, will be promoted.

Fifth, the Act provides a support basis to encourage collaboration with non-governmental organizations in developing and diffusing environmentally-friendly transport technology. It fosters the development of environmentally-friendly modes of transportation in accordance with the National Transport Technology Development Plan (Act on the Promotion of Efficiency of National Intermodal Transport System) and enables the government to provide administrative and financial support for trial-run programs. Furthermore, to increase the use of environmentally-friendly transportation, the government will provide subsidies to the users of environmentally-friendly modes of transport, as well as subsidies and various incentives to their providers.

In addition, the government plans to enhance educational and promotional activities, and to increase specialized centers over the long term to spread Eco-Driving of automobiles with proven 10~15% fuel efficiency. The legal basis is thus established for the development and management of the Eco-Driving program, as well as for the public education and promotional activities concerning the program, such as the designation of educational institutes.

2. Fuel prices and tax reform

1st Energy Tax Reform ('01.7~'05.6)

The Republic of Korea has executed tax reform that regulates the tax rate on energy sources, in order to reduce the influence of foreign economic performance. Major details include classifying oil into transportation oil and commercial oil according to its use, so that for transportation oil/LPG, the tax rate is adjusted to be higher according to gas prices to address distortions in the pricing system, while for commercial heavy oil, due to its high pollution risk and competition with LNG in the development fuel market, a new tax is applied in order to achieve balanced taxation. Furthermore, the tax rate will be adjusted incrementally from 2001 to 2006, and a portion of the funds raised through this tax reform will be used to reduce the burden on owners of small transportation businesses, such as bus, taxi, and truck companies.

2nd Energy Tax Reform ('05.7~'07.7)

First, to encourage a reduction in energy consumption and suppress environmental pollution, the 1st energy tax reform was promoted, which would have gradually increased the tax rates of light oil, LPG, and butane. However, to prevent the aggravation of the problem of environmental pollution from the marketing of light oil automobiles, which had been planned since 2005, the original plan was modified and thus the 2nd Energy Tax Reform (as promoted, which would haThe major details of this second reform include increasing the transportation tax rate in order to raise light oil prices to 85% of gas prices within the next three years, and decreasing the individual consumption tax rate in order to keep LPG butane prices at 50% of gas prices.

< 2nd Energy Tax Reform Plan for Legal Tax Rate Increase >

(Unit: KRW/ℓ)

Year	Gas		Light Oil		LPG Butane	
	Relative price ratio	Transportation Tax Rate	Relative price ratio	Transportation Tax Rate	Relative price ratio	Individual Consumption Tax Rate
'05.3	100	630	70	319	53	245
'05.7	100	630	75	365	50	210
'06.7	100	630	80	404	50	210
'07.7	100	630	85	454	50	210

3. Regional and global transport system integration encouraging efficient modes

A single world market is the final step of economic integration, in which the currencies and economic policies of all member states integrate to form one unified council and one central bank. Likewise, South Korea recognizes the importance of actively participating in the construction of a single Northeast Asian transport market to strengthen its competitiveness as a nation.

With South Korea entering into the age of infinite, borderless competition as a result of the Korea-US Free Trade Agreement (FTA) and the improving relationship between the two Koreas, the demand for international transport is expected to rise. Furthermore, trade and investments within the Northeast Asian economy, one of the world's three major economic zones, are expanding around Korea, China, and Japan. It is expected that market-driven integration within Northeast Asia will accelerate as the economic exchanges within the region increase. However, because Northeast Asia is the only region without a unified economic community, it is even more important that a single transport market that mutually benefits all nations be constructed.

The strategy regarding the construction of a base facility for a single Northeast Asian transport market is outlined as follows: an Asian Highway, consisting of 55 routes and extending 140,000 km, connecting 32 regions in Asia including Korea, China, Japan, Russia, India, and Iran. A Trans-Asia Railway connecting the Trans-Siberia Railway, the Trans-China Railway, the Trans-Manchuria Railway, the Trans-Mongolia Railway, the Trans-Korea Railway and other railways in Asia. It

is an international railway that passes through 28 countries in the continent, and extends for 81,000 km. The expansion of an open sky policy and negotiations for the establishment of a single regional sky market are also being actively promoted. In the area of sea transport, the sea transport liberalization policy has been greatly improved, and its details are currently being negotiated.

In Northeast Asia, although the recognition of the importance of a single transport market is shared, little institutional and practical progress has been made. For this reason, after a policy collaboration framework has been established, which entails connecting the disconnected transport networks and gradually easing regulations on the transport/logistics industry, serious collaboration that aims to institutionalize the revitalization of transport/logistics network connection and the expansion of open transport/logistics markets will be needed.

4. Vehicle efficiency and emissions policies

Policy Background

With the wide distribution of automobiles, transport energy consumption has steadily increased. Today, 21% of Korea's total energy consumption is consumed by transport, and 79% of this energy consumption is by land vehicles. Taking into consideration global oil prices and the changes brought about by climate change agreements, these figures remind us of the importance of saving energy and reducing carbon-dioxide emissions, which can only be achieved by shifting towards higher fuel-efficiency automobiles.

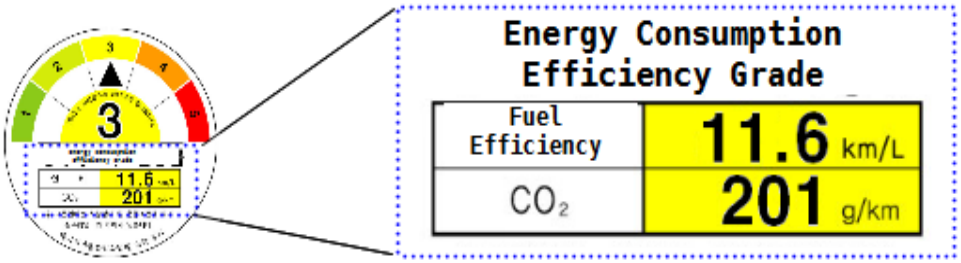
Taking this into account, since 1992 the government has required that an energy consumption efficiency (fuel-efficiency) grade label be attached to every automobile sold in Korea, as part of its policy to lower transport energy consumption caused by increased automobile use. By encouraging consumers to compare the fuel-efficiency grade of different models, consumers are induced to buy automobiles with higher fuel-efficiency. Since 2006, the government has also implemented an "Average Energy Consumption Efficiency System", which focuses on production management by automobile manufacturers, to induce manufacturers to improve the fuel efficiency of their products and to increase the average fuel efficiency of all manufactured/sold automobiles above a certain level.

Present State of Policy Implementation

To review some of the policies that have been implemented to promote the development and wider distribution of high-efficiency automobiles, the government first implemented the Fuel-efficiency Grade Labeling Policy (with indication of CO_2 emission) in 1992 to encourage consumers to rationally choose

high-efficiency automobiles. The label indicates an automobile's efficiency by giving it one of 5 grades according to its fuel-efficiency, making comparisons between high-efficiency automobiles easier for consumers. Starting in 2008, the label also includes the amount of CO_2, the representative greenhouse gas associated with automobiles, emitted from each automobile. By adding CO_2 emission indication onto the label, it can be expected that consumer awareness of greenhouse gas emission from automobiles will improve. Mini and hybrid automobiles with tax breaks applied have different fuel-efficiency and CO_2 emission labels attached.

< Energy Consumption Efficiency Grade (Fuel-Efficiency Grade) Label >



Secondly, the government has been implementing the Average Energy Consumption Efficiency Policy (Average Fuel Efficiency Policy), a policy similar to CAFE in the US, which requires manufacturers to calculate the weighted harmonized average fuel-efficiency of all automobiles sold, and to meet or exceed certain annual fuel-efficiency goals. This policy induces manufacturers to continuously improve the fuel-efficiency of their automobiles and to develop CO_2 reduction technology. Penalties are applied to manufacturers who fail to fulfill the average efficiency standard goal. In 2008, the government made an upward readjustment of the average efficiency standard goal for the year 2012. In July 2009, the government announced its plan to introduce an Optional Single Regulation Policy that would allow automobile businesses to choose one standard between fuel-efficiency and greenhouse gas reduction, and would apply a phase-in system that extends the target automobiles by degrees from 2012 to 2015, through which it is preparing a new standard that restricts greenhouse gas emissions to 140g per km and readjusts the standard of vehicle fuel-efficiency upward by 17km per Liter.

Finally, the government has provided various tax incentives to expand the distribution of high-efficiency automobiles such as minis and hybrids. First, for

mini cars, the buyer is exempted from unit consumption tax, education tax, registration tax, acquisition tax, and public debt, and various benefits are applied including a 50% discount on highway toll, and a 50% discount on fees for public parking lots. For hybrid automobiles, as much as 3,100,000 Korean Won is exempted from the unit consumption tax, education tax, registration tax, and acquisition tax provided that a certain fuel-efficiency standard is met. The tax exemptions on hybrid cars have been implemented on a temporary basis from July 1, 2009 to December 31, 2012. In addition to these policies, diverse policies such as the establishment of exclusive parking lots for mini and hybrid automobiles are being promoted.

Policy Implementation Results

By implementing the Fuel-efficiency Grade Labeling Policy, the government has provided objective and accurate information to consumers about the efficiency of automobiles, and has encouraged the purchase of high-efficiency automobiles. Furthermore, by introducing the Average Energy Consumption Efficiency Policy, it has motivated car manufacturers to continuously develop technologies that improve fuel efficiency. As a result of the increased fuel efficiency of the average automobile (11.04km/ℓ('07)→ 11.47km/ℓ('08)), 488,000kl (388,000 TOE, 77.8 billion Korean Won) of automobile fuel and corresponding potential energy consumption and 1,028,000 tons of potential CO_2 emission reductions were achieved in 2008.

Recent Trends and Obstacles

Despite the implementation of the Fuel-efficiency Grade Labeling Policy (with CO_2 emission also labeled), the Average Energy Consumption Efficiency Policy, and diverse tax exemptions for high efficiency automobiles, sales of mini/small-size automobiles have remained low because Korean consumers generally favor mid/large-size automobiles over mini/small-size automobiles. Moreover, considering the climate change agreements that have been committed to, the needed dramatic cut in greenhouse gas (CO_2) emissions from transport energy consumption requires the promotion of policies such as fuel-efficiency labeling, not only on cars but also on mid-to-large-sized trucks, and the wide distribution of high-efficiency automobiles, high-efficiency tires, and eco-driving equipment.

Future Plans

By improving the fuel-efficiency of automobiles, both the national oil consumption used in transport and CO_2 emissions can be reduced. To achieve these goals, effective policy reinforcements must be implemented in two major aspects: in developing technologies for improving automobile fuel efficiency, and in encouraging consumers to choose high-efficiency automobiles over low-efficiency automobiles.

For the development of fuel-efficiency improvement technologies, the government intends to continuously expand its support for automobile R&D. A mid to long-term automobile fuel-efficiency policy roadmap for strengthening the standards and penalties associated with the Average Energy Consumption Efficiency Policy is currently being devised. Furthermore, the government plans to introduce a method for measuring the fuel-efficiency and the fuel-efficiency (CO_2) labeling policy for mid-to-large-size automobiles, and to come up with procedures for a tire friction test.

In addition, to encourage consumers to choose high-efficiency automobiles, the government plans to expand the list of automobiles subject to the Fuel Efficiency Grade Labeling System, revise the fuel-efficiency-based automobile tax, and increase tax incentives associated with high efficiency automobiles.

5. Development of any transport technology research and development

5.1 Distribution of Environmentally Friendly Automobile and R & D Policy

a. Overview

South Korea adopted the 'Act to Promote the Development and Distribution of Environmentally Friendly Automobiles' in 2004, which established the legal basis for the development and distribution of environmentally friendly automobiles, and divided responsibilities among the various branches of the government for the achievement of this goal. Under the Act, the Ministry of Knowledge Economy is in charge of the core technology development, while the Ministry of Environment is in charge of the distribution.

In the technology development area, the development of environmentally friendly engine and gas emission reduction equipment is being promoted (Ministry of Environment) as well as the development of hybrid cars and hydrogen cells (Ministry of Knowledge Economy). From 2004 to 2008, 40 billion Korean Won was invested annually, which amounts to approximately 200 billion Korean Won. As a part of a next-generation research field, the Ministry of Environment has invested approximately 10 billion won annually in the development of environmentally friendly engines (for example, the development of the world's first LPG Liquid Phase Injection), an automobile that satisfies future emission and efficiency standards (bus running on Natural gas), and gas emission reduction equipment.

< State Investment on Green Car R&D >

Country	Implementing Organization	Investment Scale or Strategy
South Korea	Ministry of Knowledge Economy	Invested 149.6 billion Korean won on hybrid car and fuel cell automobile development (‘04～’08)
	Ministry of Environment	Invested 65 billion Korean won on developing an automobile that satisfies future standards and emission reduction equipment (‘04～’10)
United States	Department of Energy	Invested approximately 2.1 billion US dollars on hybrid car and environmentally friendly engine development (‘03～’15)
	Department of Transportation	Invested 630 million US dollars on the distribution of environmentally friendly buses (‘03～’15)
Japan	Ministry of Economy, Trade and Industry	Invested approximately 195.9 billion Japanese Yen on hybrid car and hydrogen car development. (‘98～’12)
Europe	EC	Invested 7.1 billion on clean-fuel and hydrogen cars development (‘03 ~ ’15)

※ Natural Gas Buses were developed for 1992~1998 as a part of the G7’s environmental technology development project, and were distributed for use starting from 2000

Furthermore, the government began to distribute natural gas automobiles at the end of the 1990s, and by 2008 it had distributed approximately 24,000 environmentally friendly automobiles across the nation by encouraging the purchase and adoption of environmentally friendly automobiles through subsidies. The government has provided subsidies to maintain the price difference between ordinary automobiles and environmentally friendly automobiles, while providing various tax incentives, including tax breaks on registration and acquisition taxes, as a part of the distribution promotion measures.

< Distribution of Environment-Friendly Cars >

	Distribution per Year						Plans for '09
	Total	**~'04**	**'05**	**'06**	**'07**	**'08**	
Total	23,893	6,212	2,886	3,768	4,437	6,590	14,466
Hybrid Cars	2,458	50	312	368	656	1,072	5,000
Clean-diesel Cars (Satisfying EURO-5 Standards)	1,928	-	7	35	489	1,397	4,388
Natural Gas Cars	19,507	6,162	2,567	3,365	3,292	4,121	5,078

b. Distribution of Environmentally Friendly Automobile and Means of R&D Implementation

To ensure a legal means of implementation, the government has put a legal and regulatory support basis in place for the development and distribution of environmentally friendly automobiles, such as hybrids and electronic cars. The strategies for technology development and distribution are laid out in accordance with certain laws and regulations.

An example of such registrations is the "Atmosphere Environment Preservation Act." To improve atmospheric conditions and regulate the emission allowance per fuel consumption/mileage for automobiles, the Act provides a legal basis for the distribution of natural gas buses and the establishment of natural gas refilling stations. Special regulations adopted with aim of purifying the atmospheric environment in the relatively more polluted metropolitan areas set the emission allowance standards for environmentally friendly automobiles (low-pollution), and oblige public organizations to purchase such automobiles.

As for the legal basis for the subsidies, the Ministry of Environment has implemented policies that give subsidies for the distribution of environmentally friendly automobiles, and provides loans for building recharging stations in accordance with the laws and regulations mentioned above. The Ministry has collaborated with other ministries to implement additional subsidies and tax incentives in order to accelerate the distribution of environmentally friendly automobiles, and is continuously striving to increase public awareness of such cars through diverse promotional activities.

c. Future Plans

As the Ministry in charge, the Ministry of Environment will work toward the wide distribution of environmentally friendly automobiles, approaching this task from various directions, and will set up the 'Policies for the Revitalization of Environmentally Friendly Automobile Distribution' with the detailed goal of the distribution of environmentally friendly automobiles for the latter half of this year, and measures to achieve this goal. In terms of R&D, the Ministry will strive to secure core technologies related to environmentally friendly automobiles through continuous annual investments, and will increase the investment scale to a level equal to that of advanced countries such as the US and Japan. Furthermore, it will promote an environmental certification system (gas emission test) and reform relevant regulations to follow the development and distribution of environment-friendly automobiles.

5.2 Transport Technology Research and Development in Public Sector

With changed views of R&D and economic growth, since the late 1990s technological innovation has increasingly become a more important factor than labor and capital, and the fostering of groundbreaking economic growth through R&D has become a global trend.

In the midst of this, transport-related technology requires active government investment, because despite the fact that the research results produced in the field greatly influence both states and people, transport-related technology does not attract private investment due to its uncertain profitability.

As a consequence, the government has been actively promoting various research and development programs, including a core transportation technology development project, future rail technology development, and an aviation advancement project. To date, the government has accomplished remarkable results, including the development of a "bimodal low-floor (refraction) vehicle," a "Low-Floor Bus Standard Model," the "Korean Express Train," and a "Next-Generation City Railway System," and is putting the city maglev train into use.

3.4% of the government's total research and development budget (excluding space/aviation and maritime projects) was spent on transport technology development, which is low compared to the percentages invested by the US, Japan and Europe (5~14%). However, the Inter-Ministerial Transport Network Plan ('00~'19) strives to actively support R&D, budgeting financial aid of 4.4 trillion Korean won for these efforts.

In the future, the government will focus on resolving various longstanding issues, such as the implementation of CO_2 emission marketable permits in the transport sector, and the development of green technology that would reduce both distribution cost and CO2 emissions to foster future green growth. By doing so, it will contribute to the state's policy implementation efforts and the global efforts to combat environmental problems.

6. Road and rail systems construction standards and changes in the, in anticipation of climate change impacts

6.1 Road

For the establishment and expansion of Green Highways that will contribute to low-carbon green growth, the government plans to develop the relevant technologies and prepare the relevant standards through the design of road slope tree-planting and the establishment of construction guidelines.

In addition, to facilitate eco-friendly road construction that supports low-carbon green growth, there are plans to establish and supply a guide for road construction dealing with the area of road tree-planting, through an analysis of site application results and the reflection of the relevant new technologies.

6.2 Railroad

As the social demand for eco-friendliness, energy-efficiency, and transportation safety has increased, the need to gradually extend investment in the expansion of railway facilities and the development of eco-friendly railroad cars as a major means of low-carbon transportation has emerged. Furthermore, it is necessary in the area of railroad construction to more actively examine the preparations for climate change.

To achieve this, the need has emerged for the establishment and execution of the revision of the railroad construction regulations and the legislation regarding railroad construction in order to promote economic and eco-friendly railroad construction. Key issues for revision include the obstruction factor of speed increase of regular railroad (annulment of the railway grade system), and the need for systematic support for rapidly-changing railroad technology, and these revisions are now in progress.

7. Capacity building needs on transport activity assessment and analysis for integrated planning

To effectively promote an annual investment of 30 trillion Korean won in roads, railways, aviations, and harbors, a regular amount (10 billion) is required to be spent on investment analyses and feasibility evaluations. Since it was drafted in January 2001, the Investment Evaluation Guideline has gone through two revisions, the first in April 2004 and the second in December 2007, and its precision has improved. However, as the development of an elaborate investment system is at its beginning stage, and the basic data has not been updated regularly, its credibility is questionable. Moreover, there has been the criticism that although a shift to environmentally friendly, energy-saving transportation has been promoted in response to high oil prices and climate change, the investment evolution policies for this shift are still lacking.

For this reason, the demand forecasting methodology and standards, which were expected to fail due to their ambiguity, were revised, and various benefits, expenses, and other basic data were converted to present-value to reflect the present state during this year's revision of the transportation investment evaluation guidelines. By strengthening the post-evaluation and the management of agencies conducting the feasibility evaluation, the government has promoted the investment evaluation policy reforms. Furthermore, greenhouse gas and environmental value benefits have been prepared that strengthen the construction of a low-CO_2 green transport system.