

Summarized Version

2006-2010 National Strategy for Sustainable Development of the Republic of Korea

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Republic of Korea

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2006-2010
National Strategy for Sustainable Development of the Republic of Korea

 **PCSD**
대통령 자문 지속가능발전위원회
Presidential Commission on Sustainable Development
Republic of Korea

<http://www.pcsd.go.kr/eng/>

2006 - 2010

**NATIONAL STRATEGY FOR SUSTAINABLE
DEVELOPMENT OF THE REPUBLIC OF KOREA**

<Summarized Version>

Republic of Korea

This document is a translation of the summarized version of the <National Strategy for Sustainable Development of the Republic of Korea>, which was approved by the Korean government at the Cabinet meeting presided by the President on October 31 2006. It is reproduced electronically on the website of the Presidential Commission on Sustainable Development of the Republic of Korea at <http://www.pcsd.go.kr/eng/>.

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Overview of the National Strategy for Sustainable Development of the Republic of Korea

Preface

Formulation Process

Main Contents by Policy Area

National Sustainable Development Indicators

Follow-up Plan



Overview of the National Strategy for Sustainable Development of the Republic of Korea

Preface

The Republic of Korea has achieved rapid economic growth since the 1960s but is experiencing a serious level of ill-balanced development in terms of environmental preservation and social integration. Its development-oriented economic growth resulted in pollution load that exceeded the environment's auto-purification capacity and weakened social solidarity and increased conflicts between regions, classes and generations. Consequently, the level of Korea's national sustainability was evaluated to be weak.

In the economic sector, Korea's economic size has increased and people's income has risen substantially as shown in its GDP increase, whose ranking rose to the 10th place among the 30 OECD member countries. However, lack of consideration of environmental issues in the economic development and industrialization process led to a weak socio-economic structure in terms of pollution prevention comprising industrial structure, production and consumption patterns and people's attitudes.

In the environmental sector, there are limits in improving the environment as post-pollution treatment is much more focused than pollution prevention. Environmental pressure has exceeded the receiving capacity of the ecosystem, thus threatening the sustainability of national land and environment and increasing conflicts between development-oriented policies and environmental movements.

In the social sector, Korea's 'compressed economic growth' caused the increase of social conflicts due to a concentration of wealth and lack of social welfare system such as employment, public health and welfare. This proves that social basis for sustainable development cannot be established without an equitable distribution of wealth.

In short, the Republic of Korea has a relatively large population for its territorial size and its environmental pollution load is high as the industrial production activities are high energy and resource consuming. Therefore, Korea is vulnerable to environmental pollution. Social conflicts related to development and preservation thus frequently arise and sometimes in duplication with those between income classes or regions.

To cope with these national situations, it was necessary to manage economic, social and environmental sectors in a comprehensive and integrated way when formulating and implementing national policies. Hence, the formulation of the National Strategy for Sustainable Development (NSSD) was urgently needed.

At the international level, the World Summit on Sustainable Development (WSSD) held in Johannesburg, South Africa, in September 2002 recommended all countries to adopt sustainable development as a basic direction for national development strategies in the 21st century. In this context, the WSSD states that all countries should take immediate steps to make progress in the formulation and elaboration of the NSSD and begin their implementation by 2005.

On the occasion of the President's declaration of the 'National Vision for Sustainable Development' in June 2005, the Republic of Korea drove forward the formulation of the NSSD which had been partially carried out from 2000 and finalized the NSSD in October 2006 through multi-stakeholder consultations including government departments, civil society organizations and business.

Formulation Process

The Republic of Korea has striven to conduct environmentally friendly national policies since the formulation of the 'National Action Plan for Agenda 21' in 1996. These national efforts led to the declaration of the 'New Millennium National Environmental Vision' by the President in June 2000. Main contents of this vision include that all national policies in the 21st century should be reorganized to realize ecological rationality, government must socially conduct policies managing all scientific technologies according to the ecological rationality, and environmental pollution should not be unequally concentrated on the socially and ecologically disadvantaged such as the aged and children. As the result of the 'New Millennium National Environmental Vision', the Presidential Commission on Sustainable Development (PCSD) of the Republic of Korea came into being directly under President.

Serious efforts to formulate the NSSD started in full earnest with the creation of the PCSD in September 2000.

The first term of the PCSD (2000.9 - 2002.9) presented the formulation of a strategy that can set national goals and policy directions for sustainable development, as an urgent national matter. To this end, the formulation of the 'National Strategy for Sustainable Development' was selected as a national policy task in December 2000.

The first stage of the formulation involved the development of a strategy to set goals and principles of sustainable development for each main policy area as well as the implementation strategy and methods for evaluating policy implementation progress.

The PCSD developed guidelines for formulating strategies of 10 policy areas. Based on these guidelines, 7 departments including the Ministry of Construction and Transportation and the Ministry of Environment drew up tentative plans and formulated strategies through discussions with subcommittees of the PCSD.

However, this proved to be a difficult and complex process. In particular, as the Korean government decided to resume the ‘Saemangeum Reclamation Project’ that was once halted due to its controversial issues in the Korean society in May 2005, civil environmental organizations strongly opposed and civil commissioners of the PCSD resigned in protest against the project. Civil society organizations stopped dialogue with government, making the process very challenging.

After two years of work, the PCSD developed national strategies for sustainable development by 10 policy areas and finalized them at the Head Committee on September 18 2002. It was then decided to develop the NSSD covering the overall national administration including the social sector during the next term of the Commission.

The second term of the PCSD (2002.10 - 2003.6) added the social sector to the work done during the first term of the Commission and initiated discussions to integrate economy and environment. A study on the basic plan for the NSSD was finalized. In early 2003, the 16th Presidential Transition Committee selected ‘sustainable development and a pleasant environment’ as one of the national tasks of the future government. With the launch of the new Participatory Government, the function of the Commission was reinforced and the third term of the PCSD took charge of the NSSD formulation.

The third term of the Commission (2003.12 - 2005.12) began the formulation of the NSSD. The new Participatory Government included ‘NSSD formulation’ as one of the 100 national tasks and the PCSD adopted it as one of its five core projects. Serious efforts were undertaken to formulate the NSSD, with the Head and Expert committees at its center, based on the analysis of the current status and prospect of Korea’s sustainable development.

From March 2004, 8 research teams were organized with the participation of civil society, academia and business, collecting various opinions through public consultations with civil organizations among others.

In May 2005, the PCSD consulted and collected opinions of 20 central departments including the Ministry of Finance and Economy on the ‘National Vision for Sustainable Development’ and policy tasks. The Commission successfully drew agreements on the issues that required coordination due to different views of 5 departments including the Ministry of Finance and Economy, through director meetings of relevant departments. After coordination among government departments led by the Office of Presidential Secretary was finalized, the ‘National Vision for Sustainable Development’ and policy tasks were reported to Prime Minister and then to President at the 12th National Agenda

Coordination Meeting on June 1 2005. This, in turn, led to the declaration of the ‘National Vision for Sustainable Development’ by President on June 4 2005.

‘The National Vision for Sustainable Development’ presents a national vision that pursues not only the ‘integration of environment and development’ but also ‘balanced development of economy, society and environment’, common prosperity of the present and future generations, and joint development of the capital and regions. In particular, it proposes national goals of improving quality of economic growth aimed at enhancing quality of life, strengthening rationality and solidarity of the society through discussions and dialogues, and fulfilling our responsibility for future generations through environmental preservation.

As a follow-up plan to realize the Vision, the Korean government organized task forces (T/F) of relevant departments in which 22 departments participated, selected tasks to include in the strategy for sustainable development, and developed formulation guidelines. Government departments commenced to draw up the NSSD from September 2005, following the guidelines.

It was during the 4th term of the Commission (2006.01-Present) that a serious strategy process for the formulation of the NSSD finally kicked off at the national level involving government, civil society, academia and business. The PCSD carried out a dynamic content development process of the NSSD, completing a multi-stakeholder participatory process and thus ensuring a truly democratic development of the strategy.

In its 4th term, the PCSD made substantial efforts in coordinating conflicting interests of various stakeholders and building consensus among them. The PCSD began to fully coordinate and integrate sectoral strategies, ensuring systematic linkage among them, following the strategic direction presented by the ‘National Vision for Sustainable Development’. Furthermore, the PCSD strove to secure budget and develop a performance evaluation system in order to ensure that the NSSD is enforceable. This coordination was a critical factor that enabled enhanced integration of sectoral-based strategies developed so far.

The PCSD’s 4 expert committees, composed of 120 members from civil organizations, academia and business, reviewed the draft strategy by policy areas including nature and environment, society and health, industry and energy, global environment and the implementation system. The expert committees submitted written opinion reports on the review results to each concerned department who then revised and complemented its draft strategy. The PCSD and relevant departments held numerous consultation and coordination meetings for different opinions.

Throughout the review and coordination process, the PCSD made sure to satisfy two aspects, namely, content review of each task and integration among tasks, and focused on verifying and complementing the following points:

- Validity of selected 48 strategic tasks
- Appropriateness of the draft strategy of each department in relation to the national vision and strategic goals

- Appropriateness of organizations in charge of each task (concerned and collaborating departments)
- Adequacy of projected timeline and budget
- Adequacy of performance indicators and their relevance with national sustainable development indicators

This thorough review and coordination process involving numerous discussions, coordination and revisions with government departments and non-state actors enabled a fully integrated development of the NSSD content. Realistic and specific targets as well as policy goals were set with a medium and long-term plan through analysis of current situations and resources available for the implementation of the strategy. Experts and civil society representatives who were members of the PCSD's 4 expert committees also made valuable inputs to the NSSD content development through many reviews and revisions.

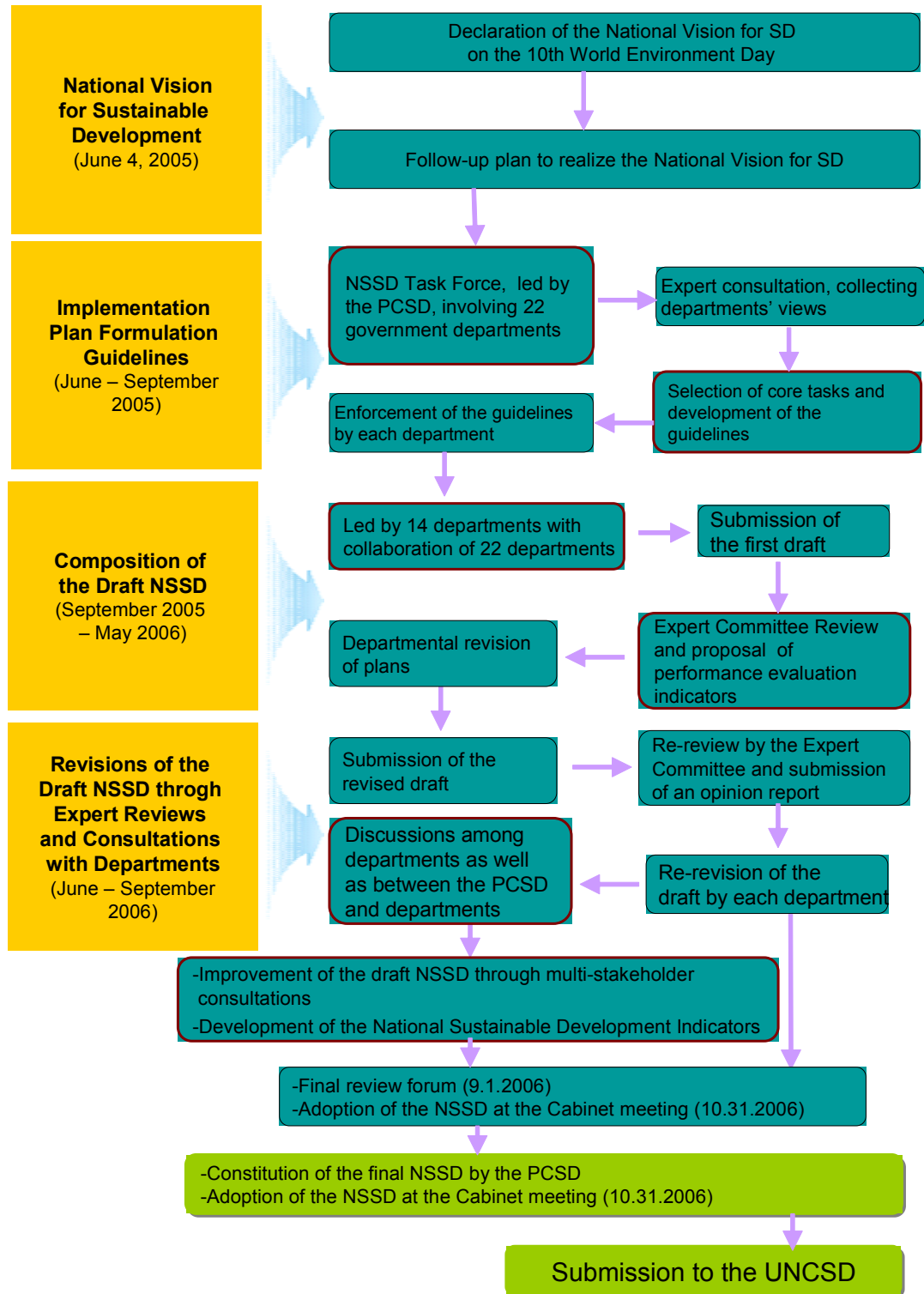
In an effort to enhance the integration of the overall strategy and implementation plan, the Commission reviewed the whole content through the Steering Committee and the Head Committee and proposed a direction for formulating and implementing the strategy. Each department reviewed parts of the strategy and implementation plan formulated by other departments and submitted opinion reports on the scope of work, responsibility and cooperative relations among them. As for the issues with wide difference of views among government departments, the PCSD organized interdepartmental meetings to coordinate different opinions and reached agreements.

Furthermore, the PCSD systematically organized 223 detailed tasks of 48 implementation tasks to make it possible to easily grasp purposes and goals of the strategy and implementation plan, by organizing each detailed task in the structure of <strategic goal-action plan-performance indicators>.

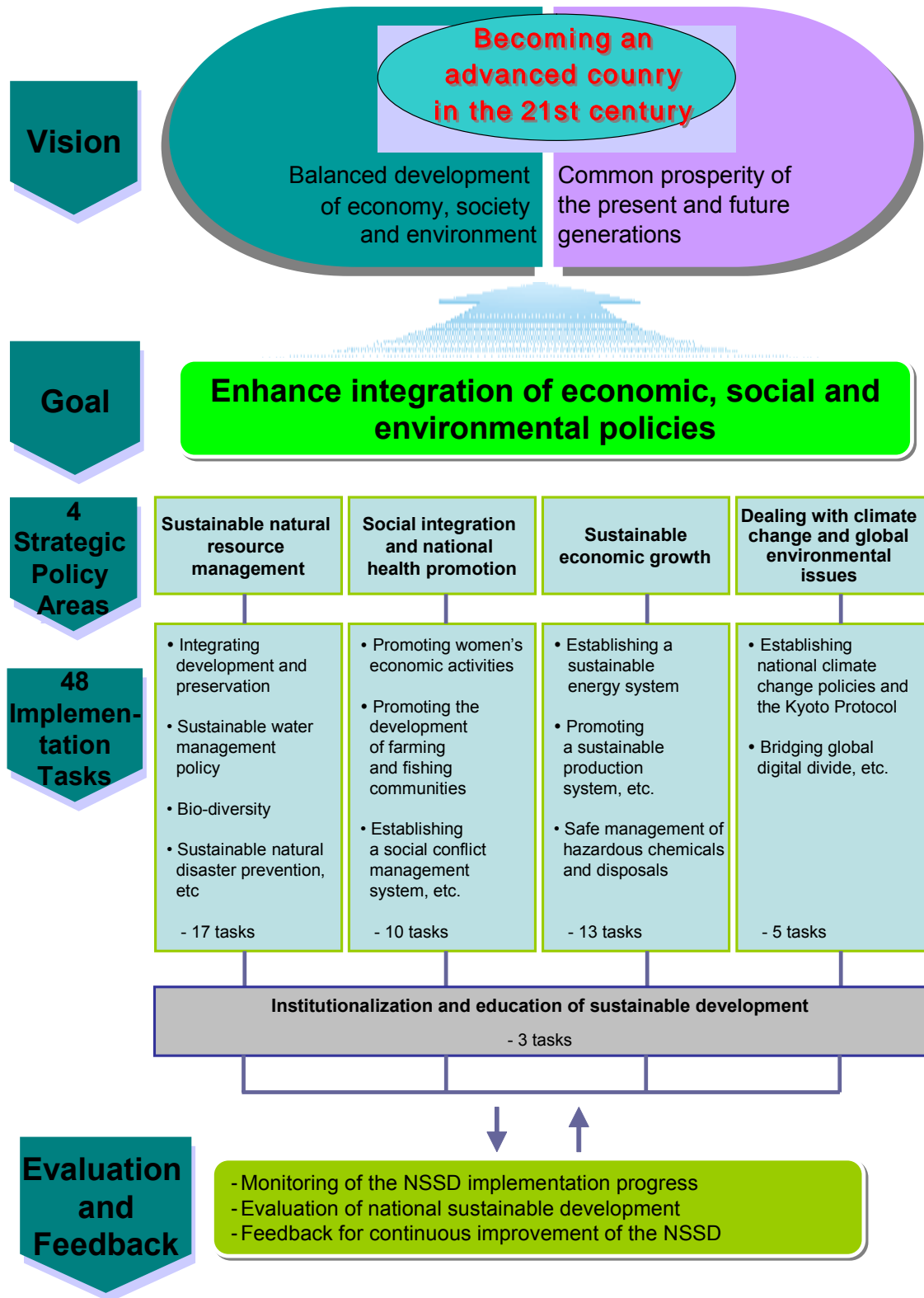
The National Strategy for Sustainable Development formulated through the described process came into being as the official 'National Strategy for Sustainable Development of the Republic of Korea', through the Vice-Ministerial Meeting on October 27 2006 and the Cabinet Meeting on October 31 2006 after being reported to President.

The NSSD of the Republic of Korea, the very first national strategy integrating and linking economic, social and environmental policies, was finally launched, mainstreaming sustainable development into the government's national policy.

Formulation Process of the National Strategy for Sustainable Development of the Republic of Korea



National Vision and Strategy for Sustainable Development of the Republic of Korea



Main Contents by Policy Area

The strategy contains five main themes and each theme has numerous key action programs. Each action program contains a detailed list of objectives and actions, centered on specific issues. This report collected and analyzed documentation produced by governmental departments between June and September 2005 and between September 2005 and May 2006 to present the structure and contents of the NSSD and its implementation plan/action programs. Additionally, this report has been written based on document analysis of expert reviews of the implementation plan/action programs formulated by the governmental departments.

This report presents five key themes in terms of conditions analysis, strategies and target goals, key action programs and detailed lists of objectives and actions as well as resources and schedules as follows:

Sustainable management of natural resources

Conditions analysis

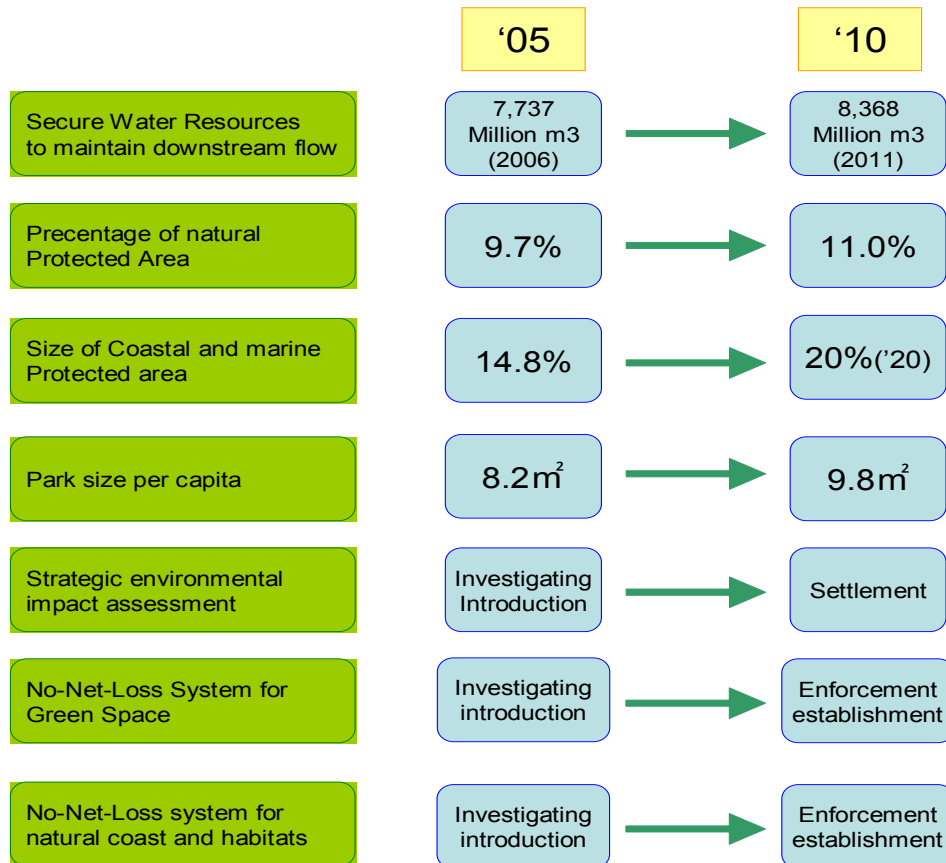
- Korea needs development models to bring about the stable procurement and efficient use of water resources, and sustainable conservation and utility of coastal waters.
- 569 towns and villages representing 40% of farming and fishing regions do not have sufficient water.
- Coastal fishing grounds are declining, the ecosystem is being modified, and fishery production is continuously decreasing (1.6%, '90~'04 average annual decline).
- Sustainable management of forests is acutely necessary to maintain, enhance and protect the productivity of the ecosystem.
- Deforestation of 170,000 ha by 2040 has been earmarked for “urban utility”.
- Korea has an urgent need to take security precautions and remove in advance dangerous factors so as to be ready for large scale natural disasters, such as severe rain storms, typhoons, and heavy snowfalls.
- Statistics indicate that bodily injury affecting 131 people and property damage of 1 trillion 924.8 billion KRW has been estimated from 1995 to 2004 as resulting from natural disasters.
- The natural environment has been damaged by the promotion of a supply-oriented national land development policy, and social costs are increasing due to the concentration of the environmental load on specific local regions.
- The capital area is no more than 11.8% of Korean territory. However, the population (48.3%) and gross production (47.7%) are excessively concentrated in the capital area.

Strategies

Strategies focus on the following four points:

- Establishing sustainable water resource management and efficient water utility systems allowing harmony between humanity and nature.
- Creating pleasant ocean surroundings where economic activities and the protection of ocean surroundings are balanced.
- Embodying sustainable national land management so that human beings and nature can coexist.
- Protecting a sound ecosystem in forest areas and constructing a foundation for sustainable forest management

Target goals



Detailed implementation tasks

| Area | Implementation tasks (17) | Detailed tasks (89) |
|----------------------------------|--|---|
| Water Resource Management | Extending safe drinking water supply | <ul style="list-style-type: none"> - Strengthening water quality standards - Extension and improvement of water facilities - Streamlining waterworks management system - Enhancing the sanitary control of drinking water in vulnerable areas - Developing alternative water sources |
| | Integrated water resource management and efficient use of water resource | <ul style="list-style-type: none"> - Water resources development and water supply system improvement plan - Integrated water resources management plan - Water reuse system enforcement plan - Strengthen management policy concerning tap water demand - Prepare a reasonable water price structure - Construct a sustainable management system for underground water |
| | Establishment of water resources information network and database | <ul style="list-style-type: none"> - Establish a national flux quantity monitoring network - Expand the measuring of flux and water levels - Automate water investigation, including remote automatic flux measurement - Expand the sharing of information on water management, and improve the function |
| | Sustainable water management policy | <ul style="list-style-type: none"> - Anticipate water supplies and complement the long term master plan for water resources - Establish a national master plan for water supply management - Change policy for dam management - Set up an advanced water management policy - Enhance the quality of drinking water - Introduce the public nature of underground water - Introduce total load management for floods |
| Coastal Management | Sustainable development scheme for coasts and oceans | <ul style="list-style-type: none"> - Integrate the management of ocean and coastal conservation districts - Establish an environmental management system for estuaries - Improve the binary management system for coastal water quality - Establish a management system for hot water supply at power plants - Manage the exclusive economic (water) zones and continental shelves - Promote the "International Ocean Peace Park" on the west coast - Establish a policy for integration and participation in ocean-governance |

| | | |
|---------------------------------|---|--|
| National land Management | Forming a pure and vigorous coast and ocean surroundings | <ul style="list-style-type: none"> - Integrate the management of oceans and coasts - Organize the management of ocean and coastal ecosystems - Enhance regional cooperation on the east Asian coast |
| | The achievement of a sustainable fishery | <ul style="list-style-type: none"> - Recover fisheries resources and construct an integrated management system - Foster healthy fishing grounds and future oriented fisheries - Set up an advanced fisheries structure at the international level - Establish eco-friendly marine products for the well-being of fishing villages |
| | Maintaining biological diversity in coastal areas | <ul style="list-style-type: none"> - Monitor the biological diversity of Korean coastal waters - Process data on the diversity of marine species - Establish a management system for marine life - Promote international co-operation on the biological diversity of the ocean |
| | Establishing a management system to prevent ocean pollution | <ul style="list-style-type: none"> - Construct an integrated management system for the ocean environment - Set up precautionary management to prevent ocean pollution - Establish a monitoring system for the ocean environment - Enhance international co-operation |
| | Sustainable forest management | <ul style="list-style-type: none"> - Build a foundation for sustainable forest management - Maintain and manage healthy forest eco-systems - Organize and foster valuable forest resources - Expand methods for carbon sink, corresponding to the "Framework Convention on Climate Change" - Establish eco-friendly forest management |
| | Sustainable measures to prevent natural disasters | <ul style="list-style-type: none"> - Enforce a consultation system for previewing the impact of disasters - Develop natural disaster reduction technologies - Enhance natural disaster forecasting and warning functions - Complete a national shelter system (E-30) - Promote the maintenance of business in natural disaster danger zones |
| | The enhancement of integration between development and conservation | <ul style="list-style-type: none"> - Strengthen the relationship between national land schemes and environmental plans - Set up a sustainable national land management system - Establish a sustainable evaluation system for national land management - Set up governance for national environmental management |
| | Establishing a national integrated information system | <ul style="list-style-type: none"> - Provide integrated national information through connecting the information systems of all ministries and offices - Establish a conservation information system at the ministry of the environment and the Korean forest service - Build a national integrated information system |

| | | |
|-----------------------|--|---|
| Transportation | Sustainable tourism | <ul style="list-style-type: none"> - Foster and make use of a sustainable tour system - Enhance the capabilities of a sustainable tourism campaign - Revitalize the evaluation of, and develop sustainable tour indicators - Prepare an institutional foundation for sustainable tourism development - Introduce a sustainable tourism certification institution |
| | Securing the diversity of marine living resources | <ul style="list-style-type: none"> - Establish an R&D institute for biological diversity protection - Search for endemic Korean species and enhance their management - Promote the sovereign power of living resources - Protect endangered wild animals and plants - Enhance the management of wild animals and plants so as to prevent disturbing the ecosystem - Create an 'environmental risk assessment system' for GMOs (genetically modified organism) |
| | Measures to protect the eco-system in the demilitarized zone | <ul style="list-style-type: none"> - Promote a boundary restoration survey for land management in the DMZ - Jointly designate a UNESCO 'biosphere reserve' between south and north Korea - Designate an international marine peace park in the border sea area between south and north Korea - Enhance public relations and education on the eco-systems in the DMZ |
| | Sustainable transportation policy | <ul style="list-style-type: none"> - Raise equity in facilities investment for roads and railroads - Activate public transportation and green traffic - Improve the traffic system for the transportation of vulnerable person - Enhance traffic safety to minimize accidents |

Estimated financial resources and projected timeline

(Hundred million WON)

| Area | Implementation task | Cost | Promotion Schedule | | | | |
|----------------------------------|--|--------|--------------------|-----|-----|-----|-----|
| | | | '06 | '07 | '08 | '09 | '10 |
| Water Resource Management | Increase potable water supply | 14,463 | ■ | ■ | ■ | ■ | ■ |
| | Integrate water resource management and establish an efficient system of use | 796 | ■ | ■ | ■ | ■ | ■ |
| | Build a water resource network and data-base | - | ■ | ■ | ■ | ■ | ■ |
| | Establish a sustainable water management policy | - | ■ | ■ | ■ | ■ | ■ |
| | Establish a sustainable development scheme for coasts and oceans | - | ■ | ■ | ■ | | |
| | Create a pure and vigorous coast and ocean surroundings | - | ■ | ■ | ■ | ■ | ■ |
| Coastal Management | Achieve sustainable fisheries | - | ■ | ■ | ■ | ■ | ■ |
| | Maintain biological diversity in coastal areas | - | ■ | ■ | ■ | ■ | ■ |
| | Establish a corresponding system to prevent ocean pollution | - | ■ | ■ | ■ | ■ | ■ |
| | Develop sustainable forest management | 54,776 | ■ | ■ | ■ | ■ | ■ |
| National Land Management | Establish sustainable natural disaster preventive measures | - | ■ | ■ | ■ | ■ | |
| | Enhance integration between development and conservation | - | ■ | ■ | ■ | | |
| | Establish an integrated national land information system | - | ■ | ■ | ■ | ■ | ■ |
| | | | | | | | |

| | | | | | | | | |
|----------------|---|-----|--------|---|---|---|---|---|
| Transportation | Develop sustainable tourism | 46 | ■ | ■ | ■ | ■ | ■ | ■ |
| | Secure the diversity of marine living resources | 804 | ■ | ■ | ■ | ■ | ■ | ■ |
| | Develop measures to protect the eco-systems in the demilitarized zone | 9 | ■ | ■ | ■ | ■ | ■ | ■ |
| | Establish a sustainable transportation policy | - | ■ | ■ | ■ | ■ | ■ | ■ |
| Total | | | 70,894 | | | | | |

* It will be possible to establish and coordinate a national financial operations plan in the process of budget organization after 2008.

Social integration and national health promotion

Conditions analysis

- Recently, it has been noticed that the industrial structure, the labor market, and earning differentials have been running in a vicious cycle, decreasing economic efficiency and exacerbating social conflicts.
- As gender equality has increased, so have women's demands for more job opportunities and opportunities for social participation.
- Social problems and conflicts are aggravated by such conditions as the growing income differential between urban and rural communities, which has intensified under the influence of international free trade, including FTA negotiations, and by the inferior living conditions of the urban poor (23% of total households).
- Since the 1980s, environmental pollution has had a negative impact on national health, while disproportionate health insurance costs and unbalanced medical markets have threatened the national fundamental right to health.
- 7.3% of the total population is exposed to air pollution, which exceeds environmental quality standards, and environmental diseases such as atopic dermatitis and asthma are on the increase among children.
- Korea shows proportionately the lowest expenditure out of total revenue on public health among OECD countries, together with a waste of medical resources, excessive medical services, and a lack of governmental investment.
- Social conflicts show an increasing trend as the 90's democratization process encouraged citizen participation in policy processes, but the government has not established any appropriate institutional decision-making processes that could elicit

robust policy agreements among various stakeholders.

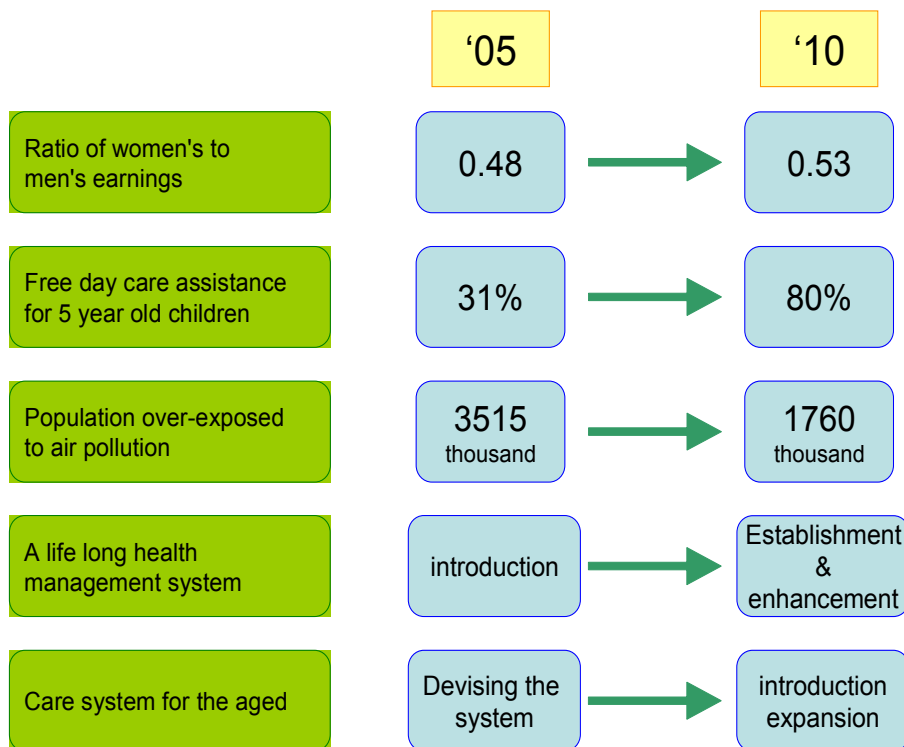
- Since the 1990s, the demand for citizen participation in the policy process has multiplied and become highly diversified along with the proliferation of democratization and open markets.
- While social conflicts have primarily been focused on labor-management disputes, the scope of social conflicts has been gradually expanding to the whole society including the environment, traffic, and construction.

Strategies

Strategies focus on the following three points:

- Securing fundamental rights in life, along with stability of social security for minority groups comprising women, the urban poor and foreign laborers, while improving social integration through balanced development between urban and rural communities.
- Preventing those factors causing national health threats, such as environmental pollution, and protecting national rights to health by expanding and reorganizing public health medical systems.
- Mitigating routine conflicts concerning politics, the economy, society and culture through improving negotiation and compromise processes, and improving the ability to adapt flexibly vis à vis social change

Target goals



Detailed Implementation Tasks

| Area | Implementation tasks (10) | Detailed tasks (39) |
|---------------------------|--|---|
| Social Integration | Gender-based Policy Impact Assessment and Promotion of Female Economic Participation | <ul style="list-style-type: none"> - Gender-based Policy Impact Assessment - Increased Female Employment and Elimination of Discrimination - Training High-level Female Workforce - Establishment of Infrastructure |
| | Strengthening of Social Foundation for Agricultural and Rural Development | <ul style="list-style-type: none"> - Agriculture Restructuring - Stabilization of Farm Income and Management of Business Risk - Improve Welfare in Rural areas and Promote Regional Development - Development and Preservation of Mountain village - Improvement of Forestry Technology Distribution System - Train and Support Forest Managers |
| | Improvement of Residential Environment for the Urban Poor | <ul style="list-style-type: none"> - Improvement of Rental Housing Supply System - Improvement of Long-term Rental Housing Supply System - Activation of the Residential Environment Improvement Program |
| | Realization of “Participatory” Social Welfare | <ul style="list-style-type: none"> - Strengthen NBLSS - Reinforce Poverty-eradication Programmes - Improve Social Safety Net |
| | Protection of Foreign Workers’ Rights through the Employ Permit System | <ul style="list-style-type: none"> - Abolishment of the ITS, Integration into the EPS - Streamlining Foreigner Employment Process & Reducing Necessary Time for Receiving Workers - Improving Protection System for Foreign Workers under the EPS - Promoting Legal Employment Practices by Eradicating Illegal Employment Practices - Improving Support Service for Foreign Workers - Enhancing Transparency in Recruiting Process |
| | Domestic Refugees Protection | <ul style="list-style-type: none"> - Humanitarian Aid - Support for a Person who is Granted Refugee Status |
| Health | Evaluation of the correlation between health and environment | <ul style="list-style-type: none"> - Reinforce the basis for monitoring the correlation between health and environment - Reinforce survey on the current status of environmental diseases - Development of a plan to minimize the number of population at risk of environmental pollution |

| | | |
|-------------------------|---|--|
| | Respiratory Disease Including Particulate Matters Reduction | <ul style="list-style-type: none"> - Particulate matter reduction measures on manufactured vehicle - Particulate matter reduction measures for in-use vehicles - Particulate matter reduction measures in industrial facilities - Scatter-prone dust management plan - Adjustment of atmospheric environmental standards and other measures |
| | Expanding Public Healthcare | <ul style="list-style-type: none"> - Reform Public Healthcare System - Expand Role of and Investment in Public Sector in Preparation for an Aged Society - Establish Prevention-oriented National Disease Control System - Expand Safety Net for Essential Healthcare Service |
| Social conflicts | Establish a Conflict Management System | <ul style="list-style-type: none"> - Enact a Law on Conflict Management of Public Institutions - Establish and Operate a Conflict Management Support Center - Consolidate a Law on Conflict Prevention Relating to Public Development Projects |

Estimated financial resources and projected timeline

(Hundred million WON)

| Implementation tasks | | Cost | A Schedule of Promotion | | | | |
|---------------------------|---|---------|-------------------------|-----|-----|-----|-----|
| | | | '06 | '07 | '08 | '09 | '10 |
| Social Integration | Increasing women's economic activity and assessing the gender impact of policies | 153,078 | ■ | ■ | ■ | ■ | ■ |
| | Building a society foundation for the development of agriculture and agricultural districts | 511,335 | ■ | ■ | ■ | ■ | ■ |
| | Increasing support for the urban poor; improving their living conditions ('04~'12) | 668,000 | ■ | ■ | ■ | ■ | ■ |
| | Realizing social welfare based on participation | 157,056 | ■ | ■ | ■ | ■ | |
| | Protecting foreign labor's rights via foreign employ permit system | - | ■ | ■ | ■ | | |
| | Alternatives for protecting domestic refugees | 2.5 | ■ | | | | |
| Health | Assessing the connection between health and the environment | - | ■ | ■ | ■ | ■ | ■ |
| | Enhancement policies to reduce respiratory disease causing micro dusts | 14,671 | ■ | ■ | ■ | ■ | ■ |
| | Increasing public health and medical improving the medical system | 48,487 | ■ | ■ | ■ | ■ | |
| Social conflicts | Establishing a conflict management system | - | ■ | | | | |
| Total | | | 1,552,630 | | | | |

* It will be possible to establish and coordinate a national financial operations plan in the process of budget organization after 2008.

Sustainable economic development

Conditions analysis

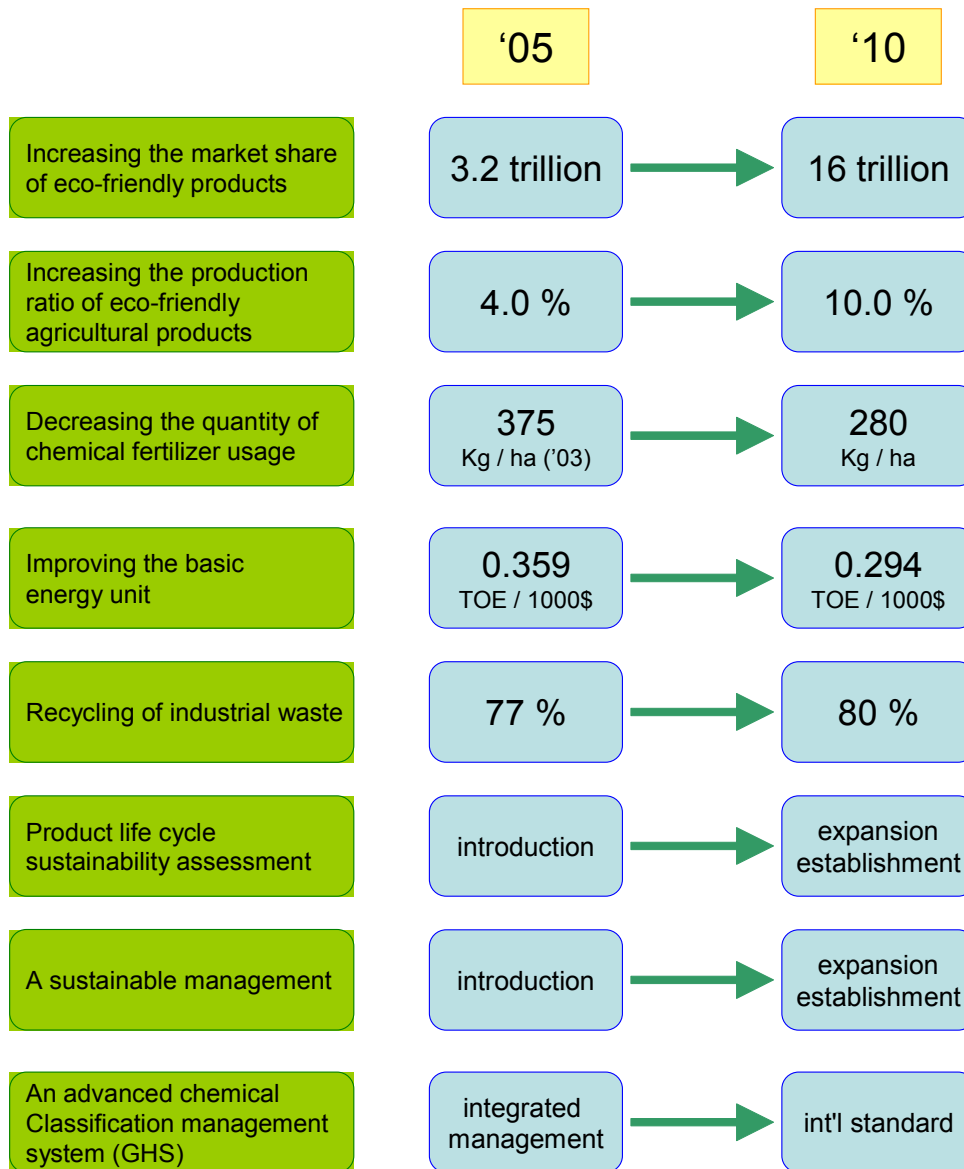
- As environmental regulations have been shifted from the restriction of pollution to restrictions on product life cycles, it is urgent to establish an environmentally friendly production and consumption system.
- Consumers pursue non-economic value-added purchasing, companies should realize the importance of business ethics and corporate social responsibility (CSR).
- It is necessary to establish a sustainable energy use system and strategically foster the environmental industry.
- Coming to the fore as an important mission is the shift toward an eco-friendly economic structure through change in industrial structures involving heavy energy consumption to energy efficient industry.
- It is necessary to develop an energy source unit (TOE/US\$1000, 2002)
Korea 0.359 (2004), the U.S. 0.249, Japan 0.09
- It is necessary to create a foundation for an ecologically sound economy and industry, taking into account product life cycles including production, distribution, consumption, recycling final disposal.
- Recent resources management systems are rapidly shifting from simple disposal management systems toward a system integrating the entire life cycle of products.
- Experts point out that Korea needs to set up an advanced management system for hazardous chemicals and waste in order to improve environmental performance and protect human health. (Korea ranked 8th as a chemical production country in 1998).

Strategies

Strategies focus on the following three points:

- Improving the efficiency of the economic industrial structure through promoting sustainable management and the establishment of an eco-friendly production and consumption system
- Improving environmental performance through establishing an energy-efficient economic structure
- Creating a win-win system balancing the economy and the environment, and improving the national quality of life by establishing a foundation for an ecologically sound economy and industry.

Target goals



Detailed Implementation Tasks

| Area | Implementation tasks (13) | Detailed tasks (65) |
|---|---|---|
| Sustainable Production and Consumption | Eco –Labelling Sharing for Sustainable Consumption | <ul style="list-style-type: none"> - Extend the target items for eco-label certification and establish the information system - Raising public awareness of eco-labelling - Promoting international cooperation |
| | Securing Consumer Safety through Safety Control on Consumer Products | <ul style="list-style-type: none"> - Building advanced safety control system - Intensifying safety control on products in circulation |
| | Expansion of Sustainable Consumption Campaign | <ul style="list-style-type: none"> - Promotion of Distribution and Purchase of Environmentally-Friendly Products - Strengthening the Basis for Public Procurement of Environmentally Sound Products - Support for the Distribution of Environmentally-Friendly Products - Promotion of “Green Consumption” in Private Sector |
| | Promotion of sustainable production | <ul style="list-style-type: none"> - Establishing a basic framework - Implementation of IPP - Develop and disseminate cleaner production technology - Disseminate Environmental Management Systems(EMS) to the entire industrial sector - Establishment of Eco-Industrial Parks (EIPs) - Promote the remanufacturing and recycling industries - Construct and use a ‘Global sustainable production network’ |
| | Improving industrial competitiveness by promoting sustainability management | <ul style="list-style-type: none"> - Raising awareness of Sustainability Management - Organize a sustainability management task force in the private sector - Establish committee on sustainability management comprised of both the private and public sector - Establishment of legal grounds for sustainability management - Introduction of incentives - Preparation for standardization of sustainability management - Encourage corporations to report their sustainability management performance - Encourage SMEs to exercise sustainability management |
| | Promotion of Environmentally Friendly Farming | <ul style="list-style-type: none"> - Development and Distribution of Core Technology - Improvement of Direct Payment System - Promotion of natural nutrient circulation agriculture - Improvement of Agricultural Materials Supporting System - Establishment of Environmentally Friendly Livestock - Farming Basis considering regional nutrient balance - Improvement of Certification System |

| | | |
|---|--|--|
| Efficient Use of Energy and Fostering Environmental Industry | Development of Environmental Technology and Industry | <ul style="list-style-type: none"> - Broadening a Basis for Developing Environmental Technology and Industry - Growing Demand for Environmental Industry - Development and Support of Promising Environmental Services |
| | Promotion of the sustainable use of energy | <ul style="list-style-type: none"> - Improve the stable energy provision - The conversion into an low energy-consumption economy - An environmentally-friendly energy supply system - Promoting socially sustainable energy policies - Energy technology R&D system upgrade |
| | Shift to Environment-Friendly Tax System | <ul style="list-style-type: none"> - Adjust the relative prices of gasoline and diesel - Adjust the relative prices of gasoline and automotive LPG - Re-adjust the scope of taxable objects for special excise tax |
| | Measures to deal with Agricultural and Fishery Trade Liberalization and for Price Stabilization | <ul style="list-style-type: none"> - Agricultural and Fishery Trade Liberalization Negotiations - Implementation of Public Stockpiling System - Implementation of the Direct Payment for Paddy-Field |
| Construction of a Resource Circulating Economic Society | Promotion of Life Cycle Assessment (LCA) | <ul style="list-style-type: none"> - Establishment of National LCI D/B - Development & Distribution of the Application of Life Cycle Assessment (LCA) Methods - Programs for LCA Experts - Promotion of Environmental Declaration of Products (EDP) Certificate - Development & Distribution of Eco-Design - Strengthening Connection with Environmental Policy and Action Plans - Promotion of Technology Exchange Through International Cooperation |
| | Resource-Circulating Waste Management | <ul style="list-style-type: none"> - Policy for Minimizing Waste - Waste-to-Resource Policy - Advanced Waste Management - Waste Safety Management - Responding to Global Trends in Waste Sector |
| | Safe Management of Hazardous Chemicals and Waste | <ul style="list-style-type: none"> - Improve Chemicals Management - Capacity Building for International Hazard Assessment & Establishment of International Cooperation System - Survey of Traces of Hazardous Chemicals & Systematic Management - Improvement of Chemicals Accident Response - Improvement of Waste Classification System - Phasing in the System for Restricted Chemicals - Survey of Generation and Distribution of Hazardous Chemicals |
| | Establishment of Hazard/Risk Information Delivery System Including Classification and Labeling Chemicals | <ul style="list-style-type: none"> - GHS Analysis & Publicity - Introduction of GHS to Korea - Support for GHS Implementation of the Industrial Community |

Estimated financial resources and projected timeline

(Hundred million WON)

| Implementation tasks | | Cost | A schedule of promotion | | | | |
|--|--|---------|-------------------------|-----|-----|-----|-----|
| | | | '06 | '07 | '08 | '09 | '10 |
| Sustainable Production and Consumption | Expanding the availability of information promoting sustainable consumption | 57 | ■ | ■ | ■ | ■ | ■ |
| | Expanding the system for sustainable consumption | 79 | ■ | ■ | ■ | ■ | ■ |
| | Expanding the system for sustainable production | 2,684 | ■ | ■ | ■ | ■ | ■ |
| | Raising industrial competitiveness through sustainable management expansion | 30 | ■ | ■ | ■ | ■ | ■ |
| | Activating environmentally friendly agriculture | 8,407 | ■ | ■ | ■ | ■ | ■ |
| | Developing environmental technology and fostering environmentally sound industries | 8,362 | ■ | ■ | ■ | ■ | ■ |
| | Establishing a sustainable energy use system | 206,635 | ■ | ■ | ■ | ■ | ■ |
| Efficient Use of Energy and Fostering of Environmental Industry | Converting to an eco-friendly taxation system | - | ■ | ■ | ■ | ■ | ■ |
| | Measurement for price stabilization and open markets relating to agricultural products | - | ■ | ■ | ■ | ■ | ■ |
| | Environmental Impacts Assessment regarding product life cycles | 260 | ■ | ■ | ■ | ■ | ■ |
| Construction of a Resource Circulating Economic Society | Disposal management for recycling | 1,351 | ■ | ■ | ■ | ■ | ■ |
| | Safe management of hazardous chemical and waste | 357 | ■ | ■ | ■ | ■ | ■ |
| | Danger warning system | 11 | ■ | ■ | ■ | ■ | |
| | Total | | 228,223 | | | | |

* It will be possible to establish and coordinate a national financial operations plan in the process of budget organization after 2008.

Dealing with climate change and global environmental issues

Conditions analysis

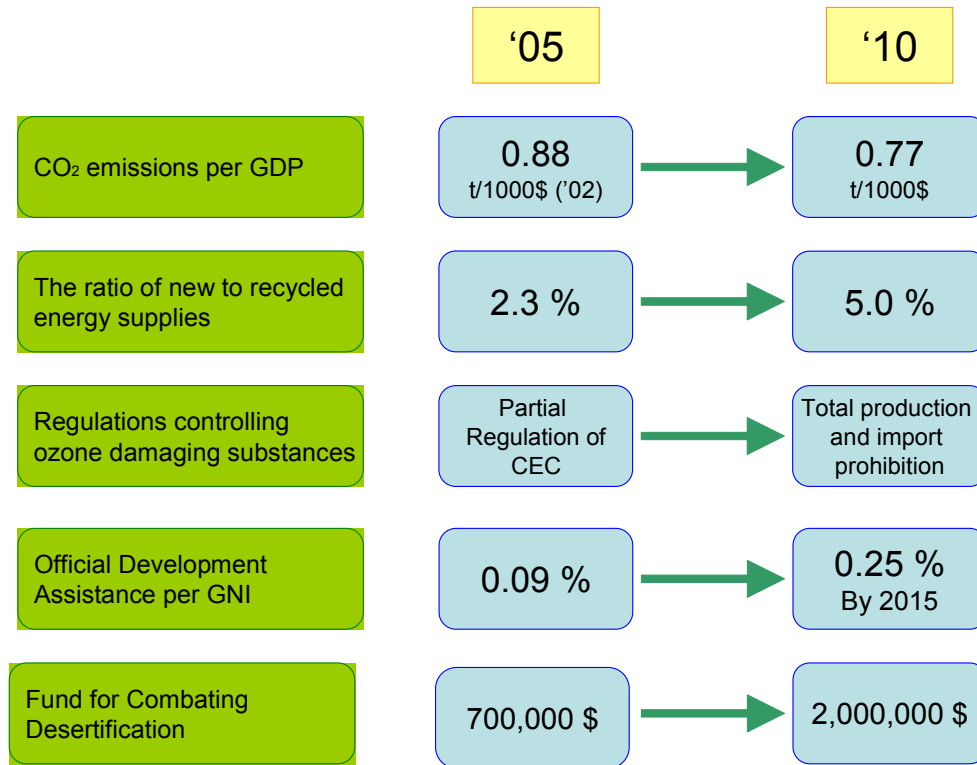
- Korea needs provisions for meeting its obligation to protect the ozone layer and reduce greenhouse gases under the “Framework Convention on Climate Change” and the “Montreal protocols,” etc.
- As Korea is ranked 9th in quantity of CO₂ released, it faces more pressure to fulfill its obligation to reduce greenhouse gases.
- Having become a signatory to the “Montreal protocols” in 1992, Korea faces the prearranged prohibition by 2010 of the production and consumption of materials damaging the ozone layer, such as refrigerants and detergents.
- As preventing desertification and extirpating poverty are primary elements of environmental protection, it is necessary to formulate and implement national action plans based on the “United Nations Convention to Combat Desertification” (UNCCD since 1996).
- Korea, as a victim of the so-called yellow dust phenomenon, should actively take part in international efforts such as Southeast Asian tropical forest restoration programs.
- As international cooperation on poverty reduction grows vigorous, Korea, ranked 11th on the world economic scale, should play an active role in international cooperation.
- Korea, as a powerful IT state, should also contribute to solving the information gap, and consistently enlarge its ratio of official development assistance (0.06% of GNI in 2005)

Strategies

Strategies focus on the following four points:

- Enhancing industrial competitiveness through developing and supplying alternative and renewable energy sources by systematically promoting greenhouse gas reduction measures.
- Complying with the international duty to protect the ozone layer and support related domestic industries through regulating materials that damage the ozone layer, and developing substitutes.
- Participating in international co-operation to support programs for the restoration of tropical forests and to combat desertification in order to protect the global environment and lesson damage by yellow dust.
- Strengthening economic cooperation and improving assistance systems for developing countries through decreasing the information gap, and enhancing official development assistance (ODA).

Target goals



Detailed Implementation Tasks

| Area | Implementation tasks (5) | Detailed implementation tasks (20) |
|--|---|--|
| Global Environmental Conservation | Establish climate change mitigation programs | <ul style="list-style-type: none"> - Build a foundation for implementing agreements - Carry out a greenhouse gas reduction project by sector - Establish a foundation for adaptation to climate change |
| | Reinforcing measures for Ozone layer protection | <ul style="list-style-type: none"> - Systematic management and reduction of ozone-depleting substances use - Active support and management for facilitating the use of alternative substances - Preparing domestic standards on the ozone-depleting substances destruction - Preparing measures to reduce HCFC production and consumption volume |
| Combating Desertification | Strengthening International Cooperation for Combating Desertification | <ul style="list-style-type: none"> - Establishment of Northeast Asia Forest Network to Combat Desertification - Supporting Projects through Bilateral Cooperation - Cooperation with International Organizations - Forest Rehabilitation in North Korea |
| Expanding Development Assistance to Developing Countries | Bridging Global Digital Divide with Developing Countries | <ul style="list-style-type: none"> - On-demand Projects by Country and Organization - Establishing Cooperative Partnership - Project Monitoring & Capacity Building - Organization System Reform & Public Awareness Raise-up |

| | | |
|--|----------------------|---|
| Bridging International Digital Divide | Comprehensive ODA | - Establish a “Korean-type ODA Model” - Improve the ODA Implementation System |
| | Improvement Plan | - Improve the efficiency of ODA to developing countries - Build the ODA infrastructure for developing countries - Expand people’s participation in ODA for developing countries |

Estimated financial resources and projected timeline

(Hundred million WON)

| Implementation tasks | | Cost | A Schedule of Promotion | | | | |
|--|---|-------------------------|-------------------------|-----|-----|-----|-----|
| | | | '06 | '07 | '08 | '09 | '10 |
| Climatic Change & Conservation of the Ozone-layer | Establishing a climate change management system | 6,960 | ■ | ■ | ■ | | |
| | Increasing the use of substitutes for substances damaging to the ozone layer | 342 | ■ | ■ | ■ | ■ | |
| Cooperation in Combating | Support of developing countries, cooperation with international organizations | 121 | ■ | ■ | ■ | ■ | ■ |
| | Decreasing the information gap of developing countries | 567 | ■ | ■ | ■ | ■ | ■ |
| Expanding Development Assistance to Developing | Increasing ODA | 0.1% of GNI compared | ■ | ■ | ■ | ■ | |
| Total | | | 7,990 | | | | |

* Three action programs in the climate change area have been executed on estimated financial resources for 2005~2007 which is the period planned for the "The 3rd comprehensive countermeasures responding to the 'United Nations Framework Convention on Climate Change'" adopted by the intergovernmental panel on climate change (IPCC) in 2005.

* It will be possible to establish and coordinate a national financial operations plan in the process of budget organization after 2008.

Institutionalization and Education of Sustainable Development

Conditions analysis

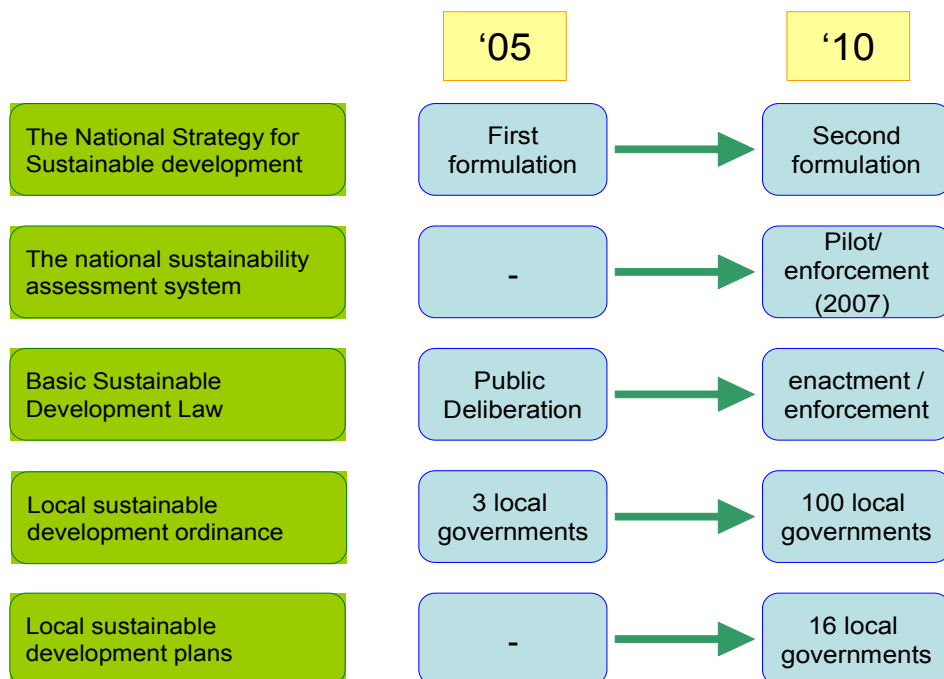
- It is necessary to enhance the implementation conditions for sustainable development, a mega-trend in the 21st C.
- While highly intense economic growth has been successfully achieved, disparities in social integration and environmental protection are becoming serious.
- In particular, certain localities incline too heavily toward competitive development policies because of decentralization, so they both lack and undermine the conditions for sustainable development in areas such as welfare and the environment.
- It is necessary to introduce a reasonable evaluation system and to devise indicators for diagnosing and analyzing the sustainability of the nation and local regions.
- A lack of measurement in the evaluation system and related time-series statistics hinder practical evaluation.

Strategies

Strategies focus on the following two points:

- Establishing the legal and institutional foundation to promote accountable implementation of sustainable development by central and local governments.
- Improving sustainability through constructing a pre-to-post evaluation system regarding sustainability policies.

Target goals



Detailed Implementation Tasks

| Area | Implementation tasks (3) | Detailed tasks (10) |
|------------------------------|---|---|
| Evaluation system | Develop Sustainable Development Indicators and Establish an Evaluation System | <ul style="list-style-type: none"> - Develop a System of National Sustainable Development Indicators - Establish and Operate an Evaluation System of National Sustainable Development |
| Implementation system | Consolidate a Foundation for Sustainable Development | <ul style="list-style-type: none"> - Consolidate a Legal and Institutional Foundation for Sustainable Development - Promote Governance for Sustainable Development - Reinforce implementation capacity for local sustainable development - Establish an implementation system for local sustainable development - Evaluate local sustainable development |
| Education | Action Plan for Education for Sustainable Development | <ul style="list-style-type: none"> - Establish a Foundation for Education for Sustainable Development - Raise Public Awareness of Sustainable Development - Expand Sectoral Education Programs and Reinforce Cooperation |

Estimated financial resources and projected timeline

(Hundred million WON)

| Implementation tasks | | Cost | A Schedule of Promotion | | | | |
|--|---|------|-------------------------|-----|-----|-----|-----|
| | | | '06 | '07 | '08 | '09 | '10 |
| Enhancing the foundation for sustainable development | Establishing the legal and institutional foundation for sustainable development | 75 | ■ | ■ | ■ | ■ | ■ |
| | Increasing sustainable development governance | | | | | | |
| | Implementing local SD capacity | | ■ | ■ | ■ | ■ | ■ |
| | Establishing local SD promotion systems | | | | | | |
| | Evaluating local SD | | | | | | |
| | Devising a national sustainable development indicators system | | ■ | ■ | ■ | ■ | ■ |
| Devising sustainable development indicators and establishing an evaluation system | Establishing a national SD performance assessment | | | ■ | ■ | ■ | ■ |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | ■ | ■ | ■ | ■ |
| | | | | | | | |

| | | | | | | | | | |
|---|--|-----------|--|--|--|--|--|--|--|
| Implementation plan for education on sustainable development | Implementing sustainable development education | | | | | | | | |
| | Spreading awareness of sustainable development | | | | | | | | |
| | Establishing a legal framework and institutional instruments | 4 | | | | | | | |
| | | | | | | | | | |
| Total | | 79 | | | | | | | |

* It will be possible to establish and coordinate a national financial operations plan in the process of budget organization after 2008.

National Sustainable Development Indicators

When the NSSD was formulated in October 2006, 77 national sustainable development indicators were selected and finalized to enable an objective evaluation of sustainable development in the Republic of Korea.

In the 90s, the Korean government recognized the need for the indicators and made efforts to devise them. However, the indicators were developed by sector, focusing mainly on the environmental sector and thus lacked considerably in the integration of the three pillars of sustainable development.

Since the Participatory Government was launched, government departments have shared the recognition of the need to develop a set of indicators that truly integrate the economy, environment and society. This shared recognition facilitated effective cooperation of government departments in developing a set of national sustainable development indicators and a firm establishment of the concept of sustainable development at the government-wide level.

It was aimed to develop national sustainable development indicators, which are adapted to national characteristics and situations, while incorporating international standards and good practices drawn from international experiences.

National Sustainable Development Indicators were selected and devised through comprehensive comparison and study of the UN Commission for Sustainable Development (UNCSD) and EU guidelines for sustainable development indicators as well as the OECD indicator system, and the incorporation of opinions collected through consultations with relevant government departments and public discussions.

Korea's 77 indicators were selected and developed through defined criteria, which include objectivity, international comparison, availability of data and statistics and national characteristics and situations.

The indicator system of the Republic of Korea comprises 4 levels namely, sector (3)-theme (14)-sub-them (33)-indicator (77), keeping similarity to the international indicator system.

- Social sector: 6 themes including equity, health, education, population, etc and 25 indicators
- Environmental sector: 5 themes including atmosphere, land, biodiversity, etc. and 27 indicators
- Economic sector: 3 themes including economic structure, consumption and production, etc. and 25 indicators

This indicator system will be fully used to evaluate national sustainable development after the development of a specific operational plan and a pilot application of indicators in 2007.

National Sustainable Development Indicators of the Republic of Korea

| Sector | Theme | Sub-theme | Indicator | |
|--------|-----------------------|--|---|---|
| Social | 1. Equity | 1-1. Poverty | 1. Percent of population living below the poverty line 2. Gini Index of Income Inequality 3. Unemployment rate (%) | |
| | | 1-2. Labor | 4. Average working hours | |
| | | | 5. Wage ratio of regular to non-regular work (%) | |
| | 1-3. Gender equality | 6. Ratio of female to male wages (%) 7. Percent of women's economic participation (%) | | |
| | 2. Health | 2-1. Nutritional status | 8. Nutritional Status of Children (% of required level) | |
| | | 2-2. Mortality rate | 9. Mortality rate under five years old (%) | |
| | | 2-3. Life expectancy | 10. Average life expectancy | |
| | | 2-4. Drinking water | 11. Supply rate of water service in farming and fishing villages | |
| | | 2-5. Health care delivery | 12. Percent of population covered by health care insurance (%) 13. National health & welfare expenditure 14. Percent of children vaccinated against infectious diseases | |
| | 3. Education | 3-1. Education level | 15. Net percent of children graduating from middle school 16. Number of students per class in elementary schools 17. Education expenditure (cost of public and private education) | |
| | 4. Housing | 4-1. Living conditions | 18. Floor area per person 19. Number of houses per 1000 population 20. Percent of people without a house | |
| | 5. Disaster/ Security | 5-1. Crime | 21. Number of recorded crimes per 1000 population 22. Human life and economic loss caused by natural disaster | |
| | 6. Population | 6-1. Population change | 23. Population growth rate 24. Population density (number of people/km ²) 25. Percent of aged population | |
| | Environmental | 1. Atmosphere | 1-1. Climate change | 26. Emissions of green house gases 27. Emission of green house gases per person 28. Emission of green house gases per GDP |
| | | | 1-2. Ozone layer | 29. Consumption of ozone depleting substances |
| | | | 1-3. Air quality | 30. Air pollution in metropolitan cities (ppm) |

| | | | | |
|----------------------------|-------------------|---------------------------|--|---|
| | 2. Land | 2-1. Agriculture | 31. Percent of farmland area 32. Production ratio of Environmental-Friendly 33. Agricultural Products of the Quality-Certificated Self-sufficiency rate of food 34. Use of fertilizers (nitrogen, phosphor) (kg/ha) 35. Use of agricultural pesticides (kg/ha) | |
| | | 2-2. Forests | 36. Forest area as a percent of land area (%) 37. Park area per person within a city 38. Wood harvesting intensity (compared to forest tree reserve) | |
| | | 2-3. Urbanization | 39. Urbanization rate 40. Concentration rate of population in Seoul Metropolitan Areas | |
| | 3. Oceans/ Coasts | 3-1. Coastal zone | 41. Algae concentration in coastal waters (Chlorophyll, etc) 42. Amount of ocean dumping 43. Size and rate of increase and decrease of foreshore area | |
| | | 3-2. Fisheries | 44. Amount of marine resources (10,000 tons) 45. Amount of fishery farming (10,000 tons) | |
| | 4. Fresh water | 4-1. Water quantity | 46. Annual withdrawal of ground and surface water 47. Amount of water consumption per person per day | |
| | | 4-2. Water quality | 48. Concentration of BOD, COD, SS, pH (Average in four major rivers) 49. Sewage distribution rate (%) | |
| | 5. Biodiversity | 5-1. Ecosystem | 50. Protected area as a % of total area 51. Number of national species 52. Number of species in danger of extinction | |
| | Economy | 1. Economic structure | 1-1. Economic performance | 53. GDP per capita 54. GDP 55. Economic (real GDP) growth rate 56. Investment share in GDP (%) 57. Consumer price indexes |
| | | | 1-2. Trade | 58. Balance of trade in goods and services |
| 1-3. Financial status | | | 59. Ratio of taxation per capita 60. Debt to GDP ratio | |
| 1-4. ODA | | | 61. ODA to GNI ratio | |
| 2. Consumption/ Production | | 2-1. Material consumption | 62. Intensity of material use (per GDP 1000\$) | |
| | | 2-2. Energy use | 63. Annual energy consumption per capita 64. Total energy supply (per energy sector) 64. Share of consumption of renewable energy sources 66. Energy unit (MJ/H\$) | |
| | | 2-3. Waste management | 67. Generation of industrial and municipal solid waste 69. Generation of hazardous waste 69. Generation of radioactive waste 70. Waste recycling and reusing | |

| | | | |
|--|------------------------|---------------------------------|--|
| | | 2-4. Transportation | 71. Transportation shares per transport mode 72. Total length of roads and cycling paths 73. Number of car accidents (per 1 million people and per 1 million cars) |
| | 3. Information Society | 3-1. Access to information | 74. Number of high-speed internet subscribers 75. Ratio of households with PCs |
| | | 3-2. Information infrastructure | 76. Number of on-line civil application services |
| | | 3-3. Sciences and technology | 77. Expenditure on research and development as a percent of GDP |

Follow-up Plan

Monitoring of implementation progress by each government department

- Designate an SD officer in charge of the NSSD within each department and carry out a periodical monitoring of the NSSD implementation progress through performance indicators.
- Integrate each department's implementation progress into the government performance evaluation of the Office for Government Policy Coordination under Prime Minister, so as to ensure effective implementation of the NSSD.

Continuous improvement of the NSSD through the national sustainable development indicator system

- The Presidential Commission on Sustainable Development of the Republic of Korea will conduct a biennial evaluation of national sustainable development through the national sustainable development indicators.
- Results of the evaluation will be open to the public and discussed in multi-stakeholder forums, involving governmental and non-governmental stakeholders. Government departments will revise and improve the NSSD, incorporating recommendations obtained through the multi-stakeholder consultation process.
- The improved NSSD will be submitted to the Cabinet meeting and adopted by the central government, ensuring the implementation of the NSSD.

Submission of the NSSD to the United Nations and sharing of NSSD experiences with the international community

- Improvement of the national image and leading global initiatives by actively implementing the international agreements made at the World Summit on Sustainable Development (WSSD) in 2002.

*Organization of the Shared Learning and Review Workshop of the NSSD of the Republic of Korea, in cooperation with the UN in March 2007, aiming to share Korea's experiences in developing, implementing and evaluating the NSSD.

National Strategy for Sustainable Development by Policy Area

<summarized version>

- 
- 1. Sustainable Management of Natural Resources**
 - 2. Social Integration and National Health Promotion**
 - 3. Sustainable Economic Development**
 - 4. Dealing with Climate Change and Global Environmental Issues**
 - 5. Institutionalization and Education of Sustainable Development**

1. Sustainable Management of Natural Resources

1-1 Extend Safe Drinking Water Supply

- Lead department: Ministry of Environment (MOE)
- Collaborating department: Ministry of Construction and Transportation (MOCT)

Overview

Despite the government's continued efforts for improving the tap water quality, the public distrust of tap water safety prevails. The efficiency of public tap water projects deteriorates due to innate structural problems, and the waterworks coverage in rural areas is at a low level. It is urgently needed to earn people's trust in tap water and to establish a safe production and supply system by securing the safety of tap water supply and demand. Also, the government needs to pull its weight in improving the imbalanced supply of tap water between urban and rural areas and in enhancing competitiveness of tap water projects by streamlining the management. To that end, the government will prepare and actively implement a water management policy to increase the waterworks coverage in rural areas, manage and maintain existing facilities efficiently, establish an advanced operation system, and build a society designed for water conservation.

1-1-1. Strengthen water quality standards

Objective

: Establish a safe tap water production and supply system

Action Plan

Enhance the tap water quality by strengthening quality management and monitoring of tap water sources, improving purification facilities and water pipe management and maintenance.

Set up public notices and draw up improvement measures for tap water facilities in case of tap water abnormality by introducing the tap water quality standards notice.

Performance Indicator

Excess rate of tap water quality standards

1-1-2. Extend and improve water facilities

Objective

: Implement waterworks extension and water pipe improvement project

Action Plan

Newly install and extend 71 purification facilities and 12,451km of water pipes by investing KRW 1,500 billion in rural areas by 2014.

Extend tap water facilities in 109 areas for tap water projects in small islands with the investment of KRW 393 billion.

Improve and streamline approx. 272 old tap water facilities in local areas by putting in KRW 390 billion by 2011.

Improve old water pipes in each region by 2011. (estimated budget of around KRW 2,630 billion for 17,492 km)

Performance Indicator

Waterworks coverage

Increased capacity of tap water facilities

Improvement of old water pipes

1-1-3. Streamline waterworks management system

Objective

: Implementation of long-term plan for the informatization of waterworks and sewerage system

Action Plan

Streamline the waterworks management system by implementing the Long-term Plan for the Informatization of Waterworks and Sewerage System (2001-2010) and by integrating the waterworks system of local areas and metropolitan areas, different regions, and small-scale waterworks systems and regional waterworks systems.

Readjust the water use charge to a reasonable level by improving the criteria for the regional waterworks charge and enhance the management of tap water projects.

Performance Indicator

Outcome of the implementation of Long-term Plan for the Informatization of Waterworks and Sewerage System

1-1-4. Enhance the sanitary control of drinking water in vulnerable areas

Objective

: Increasing the waterworks coverage in rural areas to 70% and to 75% in small islands by 2011

Action Plan

Integrate small scale waterworks and small water supply systems with limited capacity and poor water quality into regional and metropolitan waterworks systems.

Prioritize tap water projects and provide support to the projects in the top priority areas in preference to other projects.

Give priority in governmental support to small communities without a regional waterworks system where the tap water from small scale water systems exceeds the water quality standards, the areas susceptible to droughts with limited water supply and high investment potential, and to local governments that lack financial independence.

Performance Indicator

Waterworks coverage in each region (rural areas and small islands)

1-1-5. Develop alternative water sources

Objective

: Develop alternative water sources including riverbank filtration water and ground water to secure 747,000 m³/day by 2011

Action Plan

Develop riverbank filtration water as an alternative water source by designating Riverbank Filtration Water Conservation Areas.

Develop small scale drinking water reservoirs rather than newly establishing large dams.

Prevent reckless development of ground water and abandonment of unused boreholes and streamline relevant systems and regulations to use good quality ground water as a water source.

Consider developing an underground dam with the capacity of 52,000 m³/day in Goseong, Gangwon Province which has favorable conditions for ground water development with deep aquifer and good particle size for drainage.

Carry out the desalination of sea water as the water development project in small islands and coastal areas.

Performance Indicator

Total amount of the alternative tap water sources (riverbank filtration water, ground water, drinking water reservoir)

■ Budget and Action Plan Schedule

Extension and improvement of waterworks facilities including municipal water development in rural areas and drinking water source development in small islands (Budget: KRW 1 trillion and 446.3 billion)

(Unit: KRW 100 million, the national treasury)

| | Annual budget | | | | | |
|---|---------------|-------|-------|-------|-------|-------|
| | Total | '06 | '07 | '08 | '09 | '10 |
| Extension of safe drinking water supply | 14,463 | 2,250 | 2,475 | 2,884 | 3,359 | 3,495 |

Above is the investment plan based on the mid-term financial plan.

1-2-A Integrated Management and Efficient Use of Water Resources

- Lead department: Ministry of Construction and Transportation (MOCT)
- Collaborating department: Ministry of Environment (MOE)

Overview

The world is facing serious water crisis. Integrated Water Resources Management (IWRM) originated from the series of international cooperative meetings has been recognized as one of the best countermeasures which countries should adopt and observe from the standpoints of economical efficiency, sustainability, and distributional equity.

MOCT selected the following four implementation plans, which intend to secure water supply and efficiency of its use, to develop the technology necessary for IWRM in various areas, to improve water supply systems, to intensify water recycling, to foster sustainable water resources management against increasing water demand, to strengthen the competitiveness of water suppliers, and to enhance the quality of public service.

1-2-A-1. Plans for water resources development and water supply system improvement

Objective

: Assess and ensure the amount of available water by reallocation

Action Plan

Estimate the amount of water which was previously allocated to the areas but is not in demand anymore, through rational assessment of water in rivers and dams in each river basin.

Estimate the amount and propriety of dam water previously assigned to each purpose by investigating accurate demands for each use in upper and lower reaches of river. Water resources will be re-allocated by the discipline to which organizations and residents concerned can assent.

Set the use of dam water (including generation), flood control and their related systems in appropriate conditions, and develop alternative plans for providing facile water transfer and stable instream flow acquisition to water shortage areas.

Estimate proper water price in use of in-stream flow and decide its charge bearer by investigating the re-allocation of water from agricultural uses to other demands.

Performance Indicator

Total supply capacity of water resources and the amount of available water per capita

1-2-A-2. Integrated water resources management plan

Objective

: Present the integrated water resources management model for surface water and groundwater, and develop a plan and model for maximizing water supply capacity

Action Plan

Resolve many assignments related to evaluation of the national water resources/environment plan by investigating the applicability of an integrated water resources management model, which takes mechanisms of the surface water and groundwater cycle into consideration, based on scales of river basins.

Provide a great amount of runoff data on the national water resources plan by drawing a reliable distributional map of quantities of water supply.

Enhance the accuracy of precipitation forecasting and apply the technology of short- and long-term models to support dam operations.

Apply water quality predicting technology and devise a real-time water management decision-making support system based on Web/GIS to render real-time water management.

Performance Indicator

Quantity of water allotted by uses

1-2-A-3. Water reuse system reinforcement plan

Objective

: Develop water reuse technology suitable for Korean conditions and promote wastewater reuse

Action Plan

Develop water reuse technology suitable for Korea

Concerning agricultural wastewater reuse, establish disposal facility technology, and investigate the influences of water reuse on agricultural productivity and the environments, such as water quality, soil, and groundwater quality, in different levels of disposal.

Amend the Act of Sewage, support the cost of wastewater reuse projects and set up a national comprehensive plan of wastewater reuse, with the aim of promoting wastewater reuse.

Performance Indicator

Development of Korean prototype technology for integrated wastewater reuse processes

1-2-A-4. Establish sustainable groundwater management systems

Objective

: Standardize groundwater facility and establish a groundwater information system

Action Plan

- Resolve intake problems of bank filtration technology by constructing vertical wells.
- Develop standardization skills for intake water facilities with large capacity.
- Establish management techniques which enhance the combined use of surface water and groundwater for coastal and islands areas.
- Construct groundwater dams as a type of diaphragm wall in the alluvial layer, use the surface water streaming in flow path during wet season, and exploit shallow catchments stored in the upper part of groundwater dam during dry season in order to stably secure and supply waters throughout the year.
- Promote "Development of a Groundwater Information System" for comprehensive management of information on groundwater.
- Increase financial investment to improve groundwater quality.
- Revise the "Enforcement Ordinance on Groundwater Quality Maintenance" to unify and simplify the standards for groundwater quality and intensify the groundwater quality survey networks to assess groundwater contamination.

Performance Indicator

- Construction of a groundwater information system

■ Budget and Action Plan Schedule

Unit: 100 million won

| Sector | 2006 ~ 2010 | | | | | Subtotal |
|---------|-------------|-------|-------|-------|-------|----------|
| | '06 | '07 | '08 | '09 | '10 | |
| Public | 8.88 | 8.43 | 8.43 | 8.43 | 8.43 | 42.60 |
| Private | 4.92 | 4.54 | 4.54 | 4.54 | 4.54 | 23.08 |
| Total | 23.80 | 12.97 | 12.97 | 12.97 | 12.97 | 65.68 |

1-2-B Integrated Water resources Management and Efficient Use of Water Source

- Lead department: Ministry of Environment (MOE)
- Collaborating department: Ministry of Construction and Transportation (MOCT)

Overview

Questions have been raised on the supply-oriented water source management policy and the debate on the dual management of water management system by different ministries in the government has been continued for long, exposing weak points of the existing Comprehensive Water Conservation Plan. The reuse rate of treated sewage is low and the water demand management plan centered on municipal water is limited to the replacement of old pipes and the distribution of water saving equipment. The water leakage in Korea is higher than that of advanced countries and consumers are responsible for the payment for the leakage. Regional disparities in the tap water use charge and water supply, and poor water management system have been pointed out to be serious problems. Since the domestic tap water projects are small in scale and lack a firm foundation, measures to counter the impacts of market opening should be drawn up. Integrated management of water resources for each basin as well as surface water and ground water and a demand-oriented management system are required to enhance the competitiveness of the domestic tap water industry, secure the stable supply of water sources and sustainably manage and use water resources.

1-2-B-1. Establish treated sewage reuse system

Objective

: Amend the Sewerage Act and establishing a comprehensive plan for reusing treated sewage

Action Plan

Increase the sewage reuse by amending the Sewerage Act and enforce the regulation on financial support for the construction of new facilities, discount on the water charge and the requirement for the reuse facility construction for newly constructed sewage treatment facilities.

Provide financial support in the amount of KRW 102.3 billion to sewage reuse projects by local governments, aiming at reusing 220,000 tons/day by 2008.

Establish sewage reuse quality standards to secure water safety and set out the comprehensive national plan for the reuse of treated sewage.

Diversify the supply of treated sewage for reuse and develop and commercialize key technologies.

Performance Indicator

Reuse rate of treated sewage

1-2-B-2. Improve the water pricing system

Objective

: Introduce rate-setting system and establish water & sewage system rates committee

Action Plan

Enhance the criteria for rating the tap water charge of regional water system by applying the same criteria with other public charges following the standards set in the bill of budget.

Introduce the rate-setting system so that city mayors and city councils cannot have political influence in increasing water rates and establish the Tap Water & Sewage System Rates Committee (provisional).

Introduce cumulative rates system by taking account of the distribution of industries and consumer households, and seasonally differentiated rates system. Shift from the current inefficient system that uses water use meter reading personnel to auto meter reading and remote meter reading system.

Enhance the reporting system to increase transparency and usefulness of accounting information and make public announcement of large revenue sources with an additional statement.

Apply sanctions on fraudulent reporting to enhance the credibility of the statistics on tap water and sewage system, and require making public of the information on potential tap water contractors, service capability, water quality.

Prevent tap water contractors from excessively investing in equipment to minimize financial burden on consumers and realize economic justice by making different generations share the tap water production cost evenly.

Performance Indicator

Tap water prices readjustment

1-2-B-3. Strengthen tap water demand management policy

Objective

: Establish the water use system for water conservation and the Comprehensive Plan for Water Conservation

Action Plan

Prevent water shortage through efficient use of limited water resources by turning away from current supply-oriented water management policy and strengthening the management of demand for water continuously.

Establish water saving water use system through various water conservation strategies including the use of water saving water charge system, increase of water flow, and establishment of water saving infrastructure.

Prepare treated sewage water reuse measures through amending relevant acts including the Sewerage Act and implementing pilot projects.

Establish the 2nd Comprehensive Plan for Water Conservation to continuously strengthen the management of water demand.

Incorporate private organizations in the government-led water conservation campaigns to make people get familiar with the campaign and increase its efficiency.

Performance Indicator

Establishment of water saving infrastructure

1-2-B-4. Establish a sustainable ground water management system

Objective

: Build ground water informatization system and extend investment

Action Plan

Build a foundation for an efficient ground water management through implementing the Ground Water Informatization System Project.

Develop an optimized ground water management model for cities and small communities and examine the contamination of soil near industrial complexes and ground water near gas stations, and the concentration of radioactive substance in ground water.

Increase financial investment for improving the ground water quality.

Enhance current ground water quality standards and purification standards through amending the Rules on Ground Water Quality Conservation.’

Extend the water quality monitoring network to accurately diagnose ground water contamination and minimize new excavation by securing fixed monitoring points through consolidating and renting private wells and abandoned boreholes.

Performance Indicator

Number of monitoring points for the national ground water quality monitoring network

■ Budget and Action Plan Schedule

Treated sewage reuse project, Water conservation PR, establishment of ground water management system, and etc. (Budget: KRW 73 billion)

(Unit: KRW 100 million, the national treasury)

| Projects | Annual budget | | | | | |
|--------------------------------|---------------|-----|-----|-----|-----|-----|
| | Total | '06 | '07 | '08 | '09 | '10 |
| Total | 730 | 90 | 270 | 225 | 85 | 60 |
| Treated sewage reuse | 415 | 60 | 214 | 141 | | |
| Water Conservation PR | 47 | 10 | 8 | 9 | 10 | 10 |
| Ground water management system | 268 | 20 | 48 | 75 | 75 | 50 |

Above is the investment plan based on the mid-term financial plan.

1-3 Establish Water Resources Information Network and Database

- Lead department: Ministry of Construction and Transportation
- Collaborating department: Ministry of Environment
Ministry of Agriculture and Forestry
Ministry of Commerce, Industry and Energy
Ministry of Maritime Affairs and Fisheries
Korea Meteorological Administration
National Emergency Management Agency

Overview

The importance of efficient water management and establishment of water-related databases is growing. Efficient water management and water database is primarily necessary to cope with problems including global climate changes that threaten sustainability of the mankind as well as to meet the demands for water-related statistics developed by international organizations (e.g., OECD, UNDP and EU). As nation-wide information of water resources is required for promoting an integrated river management, it is very important to have more frequent and significant application using the hydrologic information and to secure transparency and consistency of water management policies through the expansion of information infrastructure of water resources. Hence, it is planned to expand *Advanced Information Infrastructure of Water Resources* and establish *Water Resources Information Network and Database*. Plans also include on-line provision of water management information and one-stop services. Another aim is to increase the transparency of water resources policies in order to fortify public trust in government policies by generating scientific, systematic and high quality hydrologic information. This is expected to promote improvements in reliability and consistency of national water resources statistics.

1-3-1. Establish national river discharge measurement network

Objective

: Decide river discharge measurement sites and conduct on-site surveys for establishing national river discharge measurement network.

Action Plan

Conduct on-site survey of all river discharge measurement sites in the entire country to establish National Discharge Measurement Network.

Determine the measurement sites by reviewing all present measurement sites. The content of the invitation will include measurement purposes, use of existing barriers, possibilities of auto-measurement, effects of backwater, installation priorities, and so on. Formulate the duplication plan of the measurement facilities in the main stations. Review the installation of supplementary measurement facilities in backwater zone of tidal river, and use of 285 local government-managed water level observation stations.

Performance Indicator

Number of water level measurement stations and that of river discharge measurement in each year

1-3-2. Expand stations for measuring river discharge and water level

Objective

: Annual expansions of stations for measuring river discharge and water level

Action Plan

Expand river discharge measurement up to 293 stations by 2010, for the water management including water use, flood control, and water quality.

Increase the number of water level stations from 390 to 975, for efficient river discharge measurement, flood forecasts, and water quantity management.

Provide hydrologic information via the Water Management Information Networking System (WINS) by building a system to share hydrologic information of local government-managed water level and precipitation stations

Performance Indicator

Included in above 1-3-1 indicator

1-3-3. Automate hydrologic investigation including remote automatic discharge measurement

Objective

: Automate hydrologic investigation by the latest technologies

Action Plan

Install automatic discharge measuring facilities such as horizontal ADCP (Acoustic Doppler Current Profiler, vertical ADCP, and rotator ADCP).

Install ultrasonic automatic discharge measurement facilities.

Performance Indicator

Automation rate of hydrologic investigation

1-3-4. Expand public information for water management and systems improvement

Objective

: Improve the opportunity of public information for water management and the systems

Action Plan

Study the analysis system for water management information through the use of data collected by water related agencies.

Develop a common module program that can be easily accessed in the first stage of process analysis by using shared basic information.

Expand open-sourced data in the Water management Information Networking System (WINS) and improve the system.

Carry out expansion of database and upgrading of systems following the operation of the Water Resources Management Information System (WAMIS).

Performance Indicator

Establishment of database of public information for water management

1-4 Sustainable Water Management Policy

- Lead department: Ministry of Construction and Transportation, Ministry of Environment
- Collaborating department: Presidential Commission on Sustainable Development (PCSD)

Overview

Although Korea's water supply rate is as high as that of advanced countries, the tap water drinking rate, supply rate in vulnerable areas and the rate of accounted water remain very low. In spite of enormous budget investment, the rate of tap water drinking is as low as 1 to 2 %. Korea needs a concentrated management of demand and supply, as its water withdrawal rate is 36.5%, one of the highest levels in the world and some rivers have hit a dangerous level of 40%. 7 core tasks were selected to implement the following strategies whose policy goal is to build a sound hydrological cycle system in which humans and nature coexist: i) to secure the safety of water supply through demand-side quantity management, ii) to restore soundness in the river environment and hydrological cycle through total amount management of water quality and flood and iii) to make the administration of river-basin management checked and balanced through the participation of various stakeholders.

1-4-1. Predict water supply and complement a long-term comprehensive water resource plan

Objective

: Formulate and complement a long-term comprehensive water resource plan and strengthen basic data

Action Plan

In order to build the structure of a rational discussion on water supply prediction, resolve controversy over water shortage through the participation of relevant stakeholders and the collection of their opinions and institutionalize the participation of stakeholders by formulating and complementing a long-term comprehensive water resource plan.

Open the information on current situations of the possible amount of supply and the amount used per usage type as well as the reused amount to the public periodically and reinforce the water-related basic statistical data management through strengthening the research capacity of specialized institutions and active information exchange.

Performance Indicator

Institutionalization of the decision-making through the participation of stakeholders

1-4-2. Formulate a comprehensive national water demand management plan

Objective

: Formulate and carry out a 10-year comprehensive national water demand management plan (from 2007 to 2016)

Action Plan

Formulate the second comprehensive drinking water demand management plan (2007-2016) and raise the current goal of the Ministry of Environment to build the infrastructure for saving 1.6 billion tons per year till 2016.

Expand and reinforce the policy that reduces the amount of used water and increases the efficiency, by introducing a demand management targeting, establishing a resource-saving water management system, expanding water recycling and improving the rate of accounted water.

Performance Indicator

Progress results of the study on current conditions of water for both agriculture and industry and the demand management targeting

1-4-3. Policy shift from dam construction to dam management

Objective

: Policy shift from dam development to dam management

Action Plan

Avoid large dam construction and modify/complement existing dam plans by constructing small and medium-sized dams adapted to the characteristics of each basin, reinforcing linkage of dam management and absorbing demand for new dams through the exclusive use of non-operating dams for agriculture.

Institutionalize the conflict prevention process by institutionalizing the participation of stakeholders and inhabitants of each basin from the planning phase of dam construction.

Performance Indicator

Efficiency results of the operation of existing dams

1-4-4. Establish an advanced water quality management system

Objective

: Strengthen the basis for implementing the total carrying capacity system of water pollution as well as

non-point source pollution management

Action Plan

Readjust existing water quality targets taking human health and the river ecosystem into account and set up strategies to achieve them.

Introduce and implement the total water pollution carrying capacity system in four rivers including the Han River water system and promote their early establishment through the implementation evaluation on and support to local governments

Set up the non-point source pollution system in four main river systems and carry out a model project and expand it to other regions in stages

Restrict locations of pollutants thoroughly by

- Forming green space through buying up land with high development potentiality as well as pollutants within water protection zones,
- Reinforcing management of non-point source pollution in water front zones and the excretions of livestock,
- Setting up management facilities of soil and pollutants discharged from cultivated mountainous areas,
- Implementing countermeasures against polluted water in Imha Dam.

Performance Indicator

Results of non-point source pollution management

1-4-5. Improve the quality of drinking water service

Objective

: Take measures for drinking water supply and increase the equality between cities and rural areas

Action Plan

Take various measures adapted to the characteristics of a concerned area including financial and technical plans for the construction of a reservoir exclusively for drinking water, facilities to use underground water and rainwater, sea water conversion and small scale water facilities for areas with regular water shortage.

Increase the equality between cities and rural areas by implementing a plan to increase state subvention funding to waterworks in farming and fishing villages and islands.

Performance Indicator

Improvement rate of drinking water quality compared to the standard quality

Results of state subvention funding for waterworks in farming and fishing villages

1-4-6. Introduce a public concept on underground water use

Objective

: Introduce a public concept of underground water and improve water quality management

Action Plan

Propose a sustainable underground water use plan through both an objective study on the natural amount and social agreements.

Improve the permission declaration system of relevant laws in order to control unplanned development of underground water and introduce/establish the public concept of underground water through charging underground water using fees.

Secure the budget for underground water management by gradually raising budget for underground water as opposed to surface water from 0.7% and build a database integrating water quantity and quality through a continuous expansion of the underground water quality control network.

Strengthen underground water monitoring linked to soil, support the development of restoration technology and expand the use of underground water as drinking water through environmental rehabilitation of existing water bore holes and reinforcement of standards for using underground water facilities.

Performance Indicator

Results of reinforcement of standards for using underground water facilities

1-4-7. Introduce total amount management of flood

Objective

: Diversify countermeasures against flooding by introducing total amount management of flood

Action Plan

Change the bank-oriented management to the natural river management, diversify preventive measures such as a flood retention basin, flood diversion channel as well as an underground stream and compile the budget for them.

- Introduce total flood discharge management system which involves the reduction of impermeable surface layers in cities and the solution of flooding problems starting firstly in minimum damage areas by setting the priority protection order
- introduce preventive measures against flooding based on the allocation system of total flood discharge.

Reinforce the concept of flood prevention including

- Damage minimization through the improvement of flood warning equipment and point,
- Drawing up of a “flood risk map” of frequently flooded areas and flood prone areas,
- Raising design standards for social infrastructure and buildings against flood
- Support for measures against flooding.

Performance Indicator

Drainage area where the quota system on the flood discharge is introduced (after 2008)

1-5 Reinforce integration of development and preservation

- Lead department: Ministry of Construction and Transportation, Ministry of Maritime Affairs and Fisheries, Ministry of Agriculture and Forestry and Korea Forest Service
- Collaborating department: Presidential Commission on Sustainable Development (PCSD)

Overview

During the course of rapid urbanization and industrialization in Korea, fields and mountainous areas in good ecosystem were destroyed by the expansion of development projects to provide land for various public facilities. The use of land policy as a tool of economic policy hampered public aspects of land use and the efficiency of territory management. Furthermore, lack of a social redistribution system of development benefits caused privatization of those benefits that in turn resulted in uncontrolled development and social inequalities. A new policy paradigm for sustainable land management is necessary to satisfy increasing demands for land use in the future. Formulation of a plan for reinforcing integration of development and preservation is needed to achieve the following goals: enhance integration of policies, improve the national land environment, ensure public aspects of land use, promote social agreement and realize the coexistence of humans and nature.

1-5-1. Intensify linkage between the national land planning and environmental planning

Objective

: Establish a linkage structure including mediation and consultation body between concerned departments and a common database on land

Action Plan

Establish a linkage structure between the following plans by:

- linking the formulation of national land planning & national environmental planning, comprehensive provincial planning & provincial environmental protection planning, basic city planning & environmental preservation planning of cities, counties and districts and
- Incorporating the environmental preservation planning of cities, counties and districts into the basic city planning and management plan.

Establish a basis for linking and formulating an environmental planning and coastal management plan and coordinate the formulation period of the coastal management plan with the environmental planning. Reinforce environmental aspects of development planning and projects by:

- institutionalizing the formulation of a project environmental planning for housing lots development and new city development planning when the scale exceeds a certain limit and
- Collaboration with concerned departments to set planning and designing guidelines for development projects.

In order to develop ecological and environmental information structures on cities,

- expand city ecosystem and environmental mapping projects in phases,
- combine territory, environmental and coastal research projects that are being separately implemented, and classify them into common and separate research categories and
- put those results into database for common use.

To intensify linkage between national land planning and environmental planning, improve the system of formulating territory and environmental planning by

- setting, in joint effort of concerned departments, territory and environmental planning guidelines which specify a basic direction and a procedure for negotiating the content of the planning and
- establishing a mediation and consultation body.

Performance Indicator

Level of progress (compared to the plan) in establishing both a linkage system between relevant plans and common database

1-5-2. Set up a sustainable national land management system

Objective

: Establish a preservation, management and support system taking regional environmental conditions into account

Action Plan

Declare the principle of ‘no-net-loss system’ to avoid the decrease in environmental carrying capacity such as green space and examine the introduction of Total Amount Management System of natural resources considering regional characteristics such as green space and swamps of high preservation value.

Convert the current city planning to a growth management plan so as to improve sustainability of cities and set calculating criteria for environmental carrying capacity and exploitable load per region.

Establish planning standards reflecting spatial characteristics of a farm area as well as a farmland management plan according to each farmland’s characteristics and devise quantitative control measures such as inducing the optimal number of livestock and dichotomous total nutrient control system considering the amount of chemical fertilizers used and the incidence amount of livestock excretions.

Introduce a coastal zoning system in order to reinforce coastal management

For preservation of green space, improve the zoning system for urban land use planning reflecting environmental functions of cities such as cold wind corridor and complement relevant laws to systematically carry out environmental improvement projects of cities and regions aimed both at restoring natural ecosystem and at improving aquatic and atmospheric environment.

Improve the land suitability assessment system by:

- complementing and reinforcing criteria for land suitability assessment in consultation with concerned departments,
- strengthening post-management of suitability assessment of an executing agency and

- specifying a land to develop into urban area and carrying out a suitability assessment when it is designated as a region one

Develop incentives for natural property preservation by:

- examining the introduction of transfer of development rights, a method for protecting natural area land by granting a land owner the "right to develop" in a development area in exchange of development limit and
- expanding the scope of tax exemption such as a green space use contract.

Formulate a revitalization plan of the national trust movement in order to prepare for the full-scale implementation of the 'national trust law on cultural heritage and natural environmental asset' (to be implemented in March 2007)

Prepare a plan to support regions with many areas designated for preservation and improve charging criteria of the ecosystem preservation and cooperation fund as well as its issuing system, with an aim to support preservation of a natural ecological environment

Explore ways to support local governments in their efforts to control unplanned development by:

- improving calculating criteria of the local grant tax to compensate the loss of development opportunities when an area is designated for preservation and
- drawing up a plan to meet administrative demands according to natural ecological conditions such as forest land area and forest development area when calculating local governments' total labor costs.

Performance Indicator

Progress of the Road map (compared to the implementation plan)

1-5-3. Establish an evaluation system of sustainable national land management

Objective

: Set up sustainable national land management indicators as well as a diverse evaluation system

Action Plan

- Evaluate sustainability of major policies and plans related to territory development by devising sustainable territory management indicators and incorporate the evaluation results in the planning, and
- Publish the current status of sustainable territory management indicators periodically in the form of 'annual reports on sustainable territory management'.
- Make a periodic estimation and evaluation of sustainable development progress by each local government and provide incentives for outstanding local governments, and
- Explore ways to reinforce prior environmental assessment in uncontrolled and over-developed areas.

Improve the environmental assessment system by:

- streamlining prior environmental assessments and the legal basis for the environmental impact assessment,
- institutionalizing the verification of the issues raised by the prior environmental assessments,
- establishing a plan to simplify assessment procedures of projects with low environmental impacts and
- revitalizing the system of post-environmental impact assessment that analyses environmental

impacts after the completion of a development project.
Streamline prior environmental assessments of projects implemented in the sea into a Consultation on Sea Area Use.

Performance Indicator

Progress in devising sustainable territory management indicators and results of the evaluation

1-5-4. Establish national land management governance

Objective

: Set up a consultative body among the government, civil society and the business sector and strengthen the function of central and regional commissions on sustainable development

Action Plan

Expand non-governmental participation including a civil representative in main development-related bodies such as central and regional city planning commissions and study the 'phase in' of opening the minutes to the public.

Explore ways to develop the commissions on sustainable development including the promotion of a role and status of regional commissions on sustainable development as a consultative body through a public-private partnership with government, citizens and companies.

Performance Indicator

Constitution of regional commissions on sustainable development as well as results of their activities

1-6 Build up a comprehensive national land information system

- Lead department: Ministry of Construction and Transportation
- Collaborating department:
 - Ministry of Environment
 - Ministry of Government Administration and Home Affairs
 - Ministry of Agriculture and Forestry
 - Korea Forest Service
 - Presidential Commission on Sustainable Development (PCSD)

Overview

As the national land information system is constructed and managed separately by each department according to its own purpose, it is difficult to grasp overall information on land development and preservation. The organization of the information system is centered on information providers, limiting the provision of user demanded information. Moreover, due to the lack of information on preservation such as the environment and the forestry compared to development-related land information, there is insufficient provision of comprehensive information on development and preservation areas. It is thus necessary to minimize the possibility of arbitrary interpretation by providing people with the basis for prior judgment of the values of land preservation and use. The basis should be used as basic data when formulating a national policy as well as various development projects of the government, so as to enable environmental associations and citizens to participate in the formulation of various development projects such as national land and city planning on the basis of national land information provided by the comprehensive information system. It is planned to formulate comprehensive plans in phases for 10 systems currently operated in 7 departments in order to provide an opportunity to coordinate various opinions related to national land.

1-6-1. (Phase 1) Provide comprehensive national land information linking each department's information system

Objective

: Provide comprehensive national land information through system linkage by 2007

Action Plan

Maintain and manage each department's national land information system and link final information to the Korean land information system by 2007 and promote it as the e-Government project.

Integrate both the comprehensive land information network of the Ministry of Construction and Transportation and the parcel-oriented information system of the Ministry of Government Administration and Home Affairs in the Korean land information system, and expand it to local governments.

Convert the comprehensive agriculture land information system of the Ministry of Agriculture and Forestry, the forestry preservation information system of the Korea Forest Service and the GIS of cultural properties of the Cultural Heritage Administration to the scale of 1/5,000 and link them to the Korean land information system.

Link the ecology map as well as the map of national land environmental assessment of the Ministry of Environment to the Korean land information system and provide broad information for preservation purposes.

Performance Indicator

Progress results of the project to link the national land related information system to the Korea Land Information System (KLIS)

1-6-2. (Phase 2) Build up an information system on preservation uses within the Ministry of Environment and the Korea Forest Service

Objective

: Establish and upgrade an information system on preservation uses by 2011

Action Plan

Conduct a basic research for constructing information related to the natural environment and ecology at the same level of the KLIS' land registration information and land information by:

- i) studying and preparing research guidelines and methods in collaboration with preservation-related departments including the Ministry of Environment, the Ministry of Maritime Affairs & Fisheries, the Ministry of Agriculture and Forestry and the Korea Forest Service and
- ii) using the workforce of concerned departments and local governments to the maximum.

Draw an ecological map making the best use of a professional structure such as the Ecology Research Center, and make a practical usage of the development project evaluation and land use planning by overlaying it in the KLIS' zoning system and parcel map. To this end, build a forest map and a forest road map on the scale of 1/5,000.

Establish a system to define a preservation use of farmland and forest area, taking into account its correlation with the surrounding environment and the ecosystem.

Performance Indicator

Progress results of the project to establish an information system on preservation uses (research and drawing up of a ecological map)

1-6-3. (Phase 3) Construct a comprehensive national land information system

Objective

: Construct a comprehensive national land information system integrating the Korea Land Information System and the information system on preservation uses

Action Plan

First all, improve and develop the information system on preservation uses regarding the environment, forest and cultural property designation and preservation areas so that it can be linked to and used with other information systems.

Once improved and developed, link it to the Korea Land Information System and organize a steering and consultative body.

Performance Indicator

Progress in constructing a linkage system between the information system on preservation uses and the Korea Land Information System

1-7 Sustainable Forest Management

- Lead department: Korea Forest Service
- Collaborating department: Ministry of Agriculture and Forestry, and Ministry of Environment

Overview

As forests in Korea account for 64% of the territory, forests have broad social, economic and environmental effects on our society. For sustainable development of the country, it is essential to apply the concept of Sustainable Forest Management (SFM) in various forest fields, including preservation of forest ecosystem, productivity enhancement, etc. Recently, there has been a need for a forest policy which takes into account several management issues such as forest ecosystem conservation, forest protection, and public needs. Recently emerging issues also include a forest rehabilitation project in North Korea and forestry cooperation in Northeast Asia. Another widely-recognized need is the development of a fundamental strategy to improve and innovate forestry management. Korea Forest Service strives to establish SFM in order to cope with such management issues in forest policy.

1-7-1. Establish a framework for SFM

Objective

: Expand Forest Stewardship Council (FSC) certified forests and set up criteria and indicators

Action Plan

Set up and maintain specific criteria and indicators for SFM adaptable to forests in Korea, including 24 criteria and indicators of Montreal Process and 4 criteria of pan-Europe processes.

Build a feedback management system that enables us to analyze changes and progress and reflect them in forest policy.

Reformulate a forest resources inventory system based on criteria and indicators for SFM, and improve accuracy of forest statistics by supervising researches, analyzing data, and developing research methods

Gradually expand FSC forests and promote implementation of SFM in field units by managing model forests for forest management certification.

Set up criteria and indicators for SFM at a regional level.

Performance Indicator

SFM certification issued by FSC

1-7-2. Protect and conserve the forest ecosystem

Objective

: Develop an efficient biodiversity management system and a disaster prevention system.

Action Plan

Preserve and manage forest bio-resources efficiently by designating genetic resources protection forests, extending eco-forests and arboretums, establishing a methodology for collection, propagation, and adoption of feasible foreign and native plants, developing a nation-wide management system for species databases, and promoting discovery of available forest resources.

Designate and manage Baekdudaegan Mountains Protected Area and develop a strategy for ecological rehabilitation and restoration.

Improve a fire protection system by means of a surveillance camera network, infrared cameras equipped in helicopters, etc., encourage early suppression by increasing fire patrols and suppression facilities, and develop fire-resistant layers within forests for preventing catastrophic fires.

Establish an early control and prevention system against forest pest and disease including special control and prevention measures, reinforced pre-monitoring and continuous preventive activities.

Develop permanent flood control measures including expansion of forest projects for disaster prevention and implementation of forest and watershed management projects.

Performance Indicator

Ratio of rehabilitated areas to overall affected areas by forest disasters, pests, or diseases

1-7-3. Improve valuable forest resources

Objective

: Expand and manage ecologically sound commercial forests in a sustainable way

Action Plan

Continue forest-tending projects in order to upgrade economic values and ecological health.

Expand sustainable commercial forests that are ecologically healthy, and designate management zones for propagation of valuable tree species and timber supply.

Raise funds allocated for public benefits from forests and increase investment in forest projects

Performance Indicator

Results of Forest-tending project

1-7-4. Promote forest recreation & culture

Objective

: Enrich and revitalize forest culture by enacting related laws.

Action Plan

Enact 『Forest Culture and Recreation Act』 for providing more recreational opportunities to public and promoting sound forest recreation cultures.

Manage forest recreation through a specialized agency, and upgrade the quality of management and forest recreation service

Expand unique recreation forests in their regional characteristics, and assign technical agents.

Develop a variety of educational or cultural programs.

Expand facilities or services for hikers.

Develop mountain villages as key positions for forest recreation and forest resources management, and encourage communities by introducing eco-tourism using their regional resources.

Performance Indicator

Number of visitors to recreation forests

1-7-5. Manage and expand urban forests

Objective

: Expand greens in residential areas and establish a network of urban greens.

Action Plan

Create greenery areas using fragments in urban areas, national and public lands, schools, etc and make urban forests and village forests with local governments.

Improve a management system and breeding conditions of roadside trees, and apply more advanced techniques for distributing or managing roadside trees.

Manage urban forests based on their functional classification and promote public involvement and support their activities.

Establish infrastructure for urban forest preparation and management by securing financial resources

Performance Indicator

Ratio of urban forests to overall urban areas

1-7-6. Expand carbon sinks in conformance with the United Nations Framework Convention on Climate Change

Objective

: Establish and implement framework plan on carbon sink expansion

Action Plan

Set a master plan (2005~2022) on carbon sink expansion in the forestry field in conformance with

UNFCCC and project the plan continuously.

Have a better understanding of global trends and consolidate negotiation capacity in order to acquire discount rate and maximum upper limit of carbon sinks during commitment negotiation.

Cope with global trends and expand carbon sinks through afforestation, forest-tending, etc.

Performance Indicator

Results of domestic and overseas afforestation

1-7-7. Environment-friendly forest management

Objective

: Set out a forest management regime for balancing conservation and development, and enhance post management for change of land-use type

Action Plan

Establish a forest management regime to harmonize conservation and development and to address the forest development demand.

Rigidly preserve high-valued forests such as areas prohibited from land conversion, etc.

Establish a management system for environmentally friendly land use by consolidating follow-up management such as inventory of land-conversion-prohibited areas and land converted to other uses.

1-7-8. Promote forestry R & D

Objective

: Facilitate practical application of technology through concentration of research capacity

Action Plan

Establish a scheme to compile capacity of developers of key forest technology.

Foster research activities of academia and local forest research institutes by establishing various supportive systems.

Integrate all capacities, and enhance abilities to solve forest issues through long-term and large-scale projects, inter-academic researches, and research plans reflecting opinions from the field.

Enhance international capacity and make a turning point of forestry technology development by holding 2010 IUFRO Conference in Seoul.

Improve the extent of completeness, diversify ways to disseminate technology, promote special training on each item, and foster technology application and use feedback from the results in order to enhance accomplishment of forestry technology.

Performance Indicator

Dissemination of Forestry technology and policy

■ Budget and Action Plan Schedule

Unit: billion won

| Item | TOTAL | '06 | '07 | '08 | '09 | '10 |
|---|---------|-------|---------|---------|---------|---------|
| | 5,477.6 | 881.0 | 1,087.1 | 1,151.6 | 1,143.6 | 1,214.3 |
| Establishment of a foundation for Sustainable Forest Management | 528.9 | 109.7 | 103.8 | 103.7 | 104.3 | 107.4 |
| Preservation and management of forest ecosystem | 254.3 | 41.5 | 48.3 | 51.5 | 53.4 | 59.6 |
| Improvement of forest resources | 1,824.2 | 230.9 | 334.5 | 400.0 | 412.8 | 446.0 |
| Forest recreation and Forest Landscape | 493.5 | 80.0 | 119.9 | 93.1 | 98.9 | 101.6 |
| Protection of forest resources | 1,447.9 | 278.9 | 321.0 | 319.4 | 263.6 | 265.0 |
| Measures to expand sinks in conformance with UNFCCC | 27.3 | 3.7 | 3.8 | 6.5 | 6.6 | 6.7 |
| Promotion of forestry R&D | 200.6 | 28.8 | 37.2 | 40.4 | 44.3 | 49.9 |
| Expansion of national forests, etc | 700.9 | 107.5 | 118.6 | 137.0 | 159.7 | 178.1 |

1-8 Sustainable Tourism

- Lead department: Ministry of Culture and Tourism
- Collaborating department: Ministry of Environment

Overview

International Organizations such as the United Nations (UN) and the World Tourism Organization (UNWTO) have recommended national governments worldwide to promote sustainable tourism in long-term perspective, which is believed to bring about increased economic and educational benefits while preserving culture and environment of tourist destinations. The Korean government also claimed its willingness to put forward eco-friendly and sustainable development of tourism through *the 2nd Tourism Development Plan*. Currently in Korea, there are increasing interests in the development of eco-tourism and green tourism as a way of sustainable tourism development. Though it is still an emerging market, its size is continuously expanding. To keep pace with the trend, the Korean government is incorporating the concept of sustainable tourism development into its policy and system, but there is lack of detailed work program and initiative plans. Therefore, a system for sustainable tourism at national level is needed to actively carry out the initiative beyond the scope of other ministries and it is time to prepare a detailed plan to enable Korea to emerge as a country of sustainable tourism that strikes a balance between development and preservation.

1-8-1. Foster sustainable tour-guides and make full use of them

Objective

: Foster sustainable tour-guide and make best use of them

Action Plan

Provide enhanced training program for new cultural tourism interpreters, which devotes a considerable amount of time to the education on ecology and ecotourism, so as to foster sustainable tour-guides.

Provide retraining to the existing tour-guides for their quality enhancement and excellency.

Establish a human resource database of sustainable tour-guides for helping travel agencies specialized in eco-tourism and general tour companies benefit from trained tour-guides.

Performance Indicator

Number of sustainable tour-guides and results of use of these tour-guides

1-8-2. Capacity enhancement of responsible entities for sustainable tourism

Objective

: Foster specialists and establish an information network

Action Plan

Run an educational program for tourism stakeholders and foster specialists for sustainable tourism in order to expand the value and importance of sustainable tourism and its implementation program.
Firmly establish sustainable tourism by sharing information on sustainable tourism resources and establishing network of relevant stakeholders.

Performance Indicator

Number of participants in the sustainable tourism-training program

1-8-3. Develop and evaluate a Sustainable Tourism Index

Objective

: Develop and evaluate a sustainable tourism index

Action Plan

Develop an index of sustainable tourism (supply and demand) applicable to Korea based upon the existing index developed by international organizations such as UNWTO, so as to prevent over-investment for tourism development and unmanaged development and use the index as a reference to tourism policy, tourism development and decision-making of travel companies.
Identify best practices for providing incentives such as increased subsidizes following the evaluation of sustainability of tourism development projects. The worst cases will receive a warning to correct its malpractice and the support of the subsidy can be discontinued if there is no progress.

Performance Indicator

Development and Application of Index for Sustainable Tourism (Supply and Demand)

1-8-4. Establish an institutional foundation for the development of sustainable tourism

Objective

: Expand the scope of sustainable tourism by improving and complementing the existing System

Action Plan

Define the concept of cultural, eco and green tourism, prepare a foundation for the work program of sustainable tourism resources development and embark on the development of tourist attractions that are fully unique to the region.

Enhance the level of user satisfaction by complementing contents, human resources and facilities of old tourist attractions and introduce an evaluation system for follow-up management.

Increase efficiency of tourism resource development projects through networks between local governments, business operators in tourism, local community and people and non-governmental organizations.

Expand the area of sustainable tourism when implementing mid- and long-term (5-10 years) tourism development plans for various regions and strengthen its administrative guidance (coordinating authority).

Performance Indicator

Frequency of Improvement of Relevant Systems

1-8-5. Introduce certification and accreditation in sustainable tourism practice

Objective

: Expand accreditation in sustainable tourism practice from 2009

Action Plan

As a strategy of overall environmental protection, introduce the accreditation system of sustainable tourism practice, which is based upon broad consensus of all stakeholders, and implement it step by step. The system will be gradually executed after pilot tests for sustainable tourist destinations and its scope will be expanded from the year 2009.

The sustainable tourism accreditation to tour products, tourism attractions and accommodations of high quality will provide various options to tourists and help tourism business operators and managers to develop tourism while protecting natural and cultural environment.

Performance Indicator

Development of accreditation program

1-8-6. Designate and foster sustainable tourism destinations

Objective

: Develop and manage environmentally sound tourist destinations

Action Plan

Prepare requirements for designating sustainable tourism destinations such as overall plan, operation management system, evaluation system of tourism effect, tourist information center, tourist interpretation service, local people participation, etc.

Appoint the region certified to meet the requirements as sustainable tourism destination, support it within the policy framework and monitor the level of operation and management on a regular basis.

Enhance the efficiency and transparency of the system operation by having public officers of relevant ministries, specialists and private sectors participate in the evaluation, designation and monitoring of tourism destinations.

Performance Indicator

Number of designations of sustainable tourism destinations

■ Budget and Action Plan Schedule

(Index: Million WON)

| Subject | Focusing Issues | 2006~2010(Expected Budget) | | | | | |
|--|---|----------------------------|------------|------------|--------------|--------------|--------------|
| | | '06 | '07 | '08 | '09 | '10 | Total |
| Establishing Infrastructure of Sustainable Tourism | Fostering and Use of Sustainable Tour-guides | 200 | 100 | 100 | 100 | 100 | 600 |
| | Strengthening Capacity of Responsible Entities for Sustainable Tourism | 300 | 300 | 300 | 300 | 300 | 1,500 |
| Sustainable Tourism and Management System | Developing and Evaluating a Sustainable Tourism Index | 500 | 200 | 200 | 200 | 200 | 1,300 |
| | Establishing an Institutional Foundation for Sustainable Tourism Development | 250 | 100 | - | - | - | 350 |
| Inducing Sustainable Tourism Activities | Introducing and Implementing Accreditation System of Sustainable Tourism Practice | - | - | - | 100 | 100 | 200 |
| | Designating and Fostering Sustainable Tourism Destinations | - | - | - | 300 | 300 | 600 |
| Total | | 1,250 | 700 | 600 | 1,000 | 1,000 | 4,550 |

1-9 Biodiversity Conservation

- Lead department: Ministry of Environment (MOE)
- Collaborating department: Ministry of Agriculture & Forestry (MAF), Korea Forest Service, Ministry of Commerce, Industry and Energy (MOCIE), Ministry of Maritime Affairs & Fisheries (MOMAF)

Overview

Since the countries' ownership of their biological resources was recognized in the Convention on Biological Diversity ('92.6) and CBD COP-6 ('02.4), the competition for securing the sovereignty of each country's biological resources has been getting fierce globally. Although Korea has rich biological resources that will drive the BT industry for the future, it has been lacking systematic research, study, and conservation methods of biological resources. Currently, domestic biological species are estimated to be 100,000, but only 29,916 species are discovered and only 2,320 endemic species are identified in documents. Korea's indigenous species are frequently delivered to foreign countries and are distributed as commercial products, but the countermeasures are not prepared. The government drew up 7 implementation strategies to conserve biodiversity and secure the sovereignty of biological resources.

1-9-1. Establish biodiversity conservation and research institutes

Objective

: Establish research and analysis institutes for biodiversity studies and the conservation of species samples

Action Plan

Establish and operate the National Biological Resources Center to preserve collected biological specimens including endemic and new species and research, analyze, and manage the change in biological environment.

Prepare a mid to long term development plan including the registration for the International Specimen Association, a plan to promote Northeast Asian biological resources and biodiversity research hub, and securing management personnel for stable operation of the National Biological Resources Center.

Establish and operate the Endemic Biological Resources Committee (provisional) to seek advice on the discussion of endemic biological resources conservation.

Performance Indicator

Progress made in the establishment and operation of the National Biological Resources Center (Compared to the original plan)

1-9-2. Discover and manage endemic species in the Korean Peninsula

Objective

: Discover 3,000 endemic species and establish systematic management by 2014

Action Plan

Discover endemic species by identifying and making a list of endemic species, and researching 70,000 of undiscovered indigenous species.

Build the Korean Peninsula Endemic Species DB and make an illustrated book based on the research result of endemic species.

Store collected materials in the National Biological Resources Center after collecting and securing specimens of endemic species.

Create an additional collection of endemic species and new standard specimen.

Strengthen the management of biological resources withdrawal to a foreign country, to protect endemic species.

Performance Indicator

Number of national biological species, discovered species, and endemic species

1-9-3. Secure the sovereignty of biological resources

Objective

: Prepare the list of species in Korean peninsula and secure the sovereignty of genetic resources

Action Plan

Build a DB of indigenous species and national biological species by 2014 by completing the research and discovery of indigenous species and the list of national biological species.

Secure and conserve the basic information on Korea's endemic biological resources. Verify identified biological species by collecting standard specimens, publishing in international scientific journals, making illustrated books, and doing international PR.

Publish the Distribution Map of Biological Resources in Korea in Korean and English including the information on biological species such as the classification, ecological characteristics, distribution, and usage.

Build a cooperation network among the government, academia, and research institutes for the verification and protection of endemic biological resources, and strengthen the regulation on the prevention of endemic biological resources withdrawal to a foreign country.

Build the infrastructure for utilizing biological resources through BT industry, and establish a system by building a DB and an information network.

Performance Indicator

Progress made in the completion of the Distribution Map of Biological Resources in Korea

1-9-4. Protect and restore endangered species of wild fauna and flora

Objective

: Designate conservation areas and implement restoration projects

Action Plan

Create an endangered species distribution map after a close examination on the distribution of endangered species.

Designate major endangered species habitats as endangered species protected area and extend protected areas.

Build and maintain a DB on the characteristics, data on habitation and distribution, protected areas of endangered species, and raise public awareness of endangered species by making PR materials.

Extend the designation of conservation organization outside habitats and provide more support for the protection of endangered species.

Actively implement endangered species restoration projects focused on national parks, and establish the Endangered Species Restoration Center in the Korea National Park Service for the protection and restoration of endangered species.

Strengthen cooperative ties with neighboring countries on the restoration of endangered species, and introduce advanced restoration technologies.

Performance Indicator

Number of species to be restored among endangered species

1-9-5. Strengthen the management of ecosystem- disrupting introduced species

Objective

: Designate ecosystem risk assessment grades and establish management scheme by species

Action Plan

Designate and classify ecosystem risk assessment grades through basic ecological research and study projects on introduced species.

Conduct a close examination on invasive species with high risk to the ecosystem, and extend the designation of ecosystem-disrupting wildlife and establish & implement a management plan for each species.

Build an informatization management system on ecosystem-disrupting wildlife, and establish a cooperation system with the Ministry of Agriculture & Forestry (MAF) and Korea Customs Service to exchange information on invasive species.

Consider introducing a pre-assessment system on the risk of invasive species to decide whether to import invasive species, and conduct a research on developing pre-assessment techniques.

Performance Indicator

Number of designated ecosystem-disrupting introduced species

1-9-6. Establish the environmental risk assessment system of LMOs

Objective

: Regularize the assessment body and enhance its professional capability

Action Plan

Regularize environmental risk assessment of LMOs and add more professionals to the team.

Enhance environmental risk assessment and review capability on LMOs, and transfer the review technology to developing countries.

Run an environmental risk review system on LMOs.

Establish and implement a system for safety management of LMOs for environmental clean-up through detailed guidelines and regulations, 5 year management plan and 1 year implementation plan, and researches.

Conduct a follow-up monitoring on LMOs released to the ecosystem, and make a DB from the results.

Enhance PR and education on LMOs for better understanding.

Protect national interests through international cooperation.

Performance Indicator

Establishment of LMOs assessment body and the progress made in the environmental risk assessment

1-9-7. Reinforce biodiversity management

Objective

: Crack down on poaching & illegal trade and establish detailed management plan to conserve biological resources

Action Plan

Establish a system for regulating the poaching and illegal trade of wildlife, and build a system to make a DB and information network management of frequent poachers and illegal traders.

Enhance public awareness campaign on wildlife protection.

Extend the designation of protected areas for the conservation of habitats of biological resources.

Establish and implement detailed management plan tailored to the needs of each protected area by 2014.

Extend biodiversity management contract areas.

Performance Indicator

Land area of natural environment protected areas

Number of biodiversity management contract areas
 Progress made in the crack down on the poaching and illegal trade of wildlife

■ Budget and Action Plan Schedule

(Unit: KRW 100 million)

| | Annual budget | | | | | |
|--|---------------|-----|-----|-----|-----|-------|
| | '06 | '07 | '08 | '09 | '10 | Total |
| Total | 87 | 98 | 174 | 204 | 241 | 804 |
| Foundation for using biological resources | - | 3 | 24 | 29 | 37 | 93 |
| Discovery and management of endemic species | 21 | 21 | 42 | 48 | 53 | 185 |
| Securing the right to biological resources | 17 | 18 | 32 | 44 | 64 | 175 |
| Protection and restoration of endangered species | 29 | 38 | 44 | 47 | 49 | 207 |
| Invasive species management | 2 | 1 | 5 | 8 | 8 | 24 |
| Environmental risk assessment system of LMOs | - | - | 6 | 6 | 8 | 20 |
| Biodiversity management | 18 | 17 | 21 | 22 | 22 | 100 |

1-10 Ecosystem Conservation in DMZ

- Lead department: Ministry of Environment (MOE)
- Collaborating department: Ministry of Unification and Ministry of National Defense (MND)

Overview

The DMZ extends 2 km north and south on each side of the Military Demarcation Line, and the ecosystem of the central area of the Korean Peninsula is connected through the northern side of the civilian passage restriction line and its boundary areas from the west to the east. 2,716 wildlife including 67 endangered species are in the DMZ, and the habitats of cranes and black-faced spoonbills, which are internationally recognized and protected, are distributed in the DMZ and its neighboring area. Because of the international attention to rare species such as cranes and black-faced spoonbills, the DMZ and its neighboring area are highly valued for its ecological importance, but due to recent reconciliation between North and South Korea and extended economic cooperation projects, the demand for development projects in the DMZ is expected to grow. In order to well preserve and hand over the ecosystem of the DMZ to the future generation as is in this pre-unification era, a mid to long-term plan to make development and conservation go hand in hand should be prepared. To that end, efforts will be made to draw up a step-by-step strategy for the conservation of the DMZ ecosystem to build a foundation for the National Ecological Network in which humans and nature co-exist by interconnecting Baekdu Daegan and the small islands and costal area ecosystem conservation plan.

1-10-1. DMZ boundary surveying and restoration of land register

Objective

: Restoration of land registers in the South Korean side of DMZ

Action Plan

Conduct a boundary surveying for the Southern Limit Line, and based on the result, examine the candidates for the ownership and land register restoration, and conduct a land surveying in the southern side of the DMZ when the time is right.

Establish and operate the DMZ Ecosystem Conservation Committee under the Office for Government Policy Coordination to review specific plans for the boundary surveying and land register restoration of the Southern Limit Line in the DMZ and fine tune different opinions of relevant government agencies.

1-10-2. Ecosystem Conservation in the DMZ

Objective

: Establish the DMZ Indigenous Species Center and the management and conservation measures of the ecosystem for the post-unification era

Action Plan

Periodically examine the ecosystem of the southern side of the DMZ, and secure specimens in the DMZ Indigenous Species Center under the National Biological Resources Center. Utilize the DB that was made out of the results in managing biological genetic resources.

Manage the DMZ under the Natural Environment Conservation Act Article 2 for two years after the unification.

After the two years, extend the ecological/landscape conservation area to the whole DMZ by dividing into three zones (key zone, buffer zone, transition zone).

Performance Indicator

Researched land area for the ecosystem in DMZ

1-10-3. Implement the ecosystem conservation measures outside the DMZ

Objective

: Carry out strategic environmental assessment and designate protected areas

Action Plan

Conduct a Strategic Environmental Assessment for major development projects with experts and private organizations from the planning stage to enable the conservation and utilization of the ecosystem simultaneously.

Systematically protect endangered species habitats, well preserved ecological/ landscape areas and well preserved wetlands by designating them as protected areas under current laws.

Performance Indicator

Number of strategic environmental assessment cases and protected area designation

1-10-4. Designate joint UNESCO biosphere reserve of North and South Korea

Objective

: Designate joint UNESCO biosphere reserve of North and South Korea

Action Plan

Pursue the designation of joint UNESCO biosphere reserve of North and South Korea as a long term goal, and exert efforts to make it a major agenda for the North-South environmental cooperation.

1-10-5. Designate the North and South transboundary marine area as an International Marine Peace Park

Objective

: Designate an international marine peace park

Action Plan

Designate the North and South transboundary marine area (from the estuary of the Han River to Baekryeong Island) as an International Marine Peace Park. <Common task with MOMAF's 1-12-7>

1-10-6. Education and public awareness communication on DMZ ecosystem

Objective

: Establish a PR Center and develop and distribute education and public communication material

Action Plan

Work towards the establishment of the DMZ Ecological Research and PR Center, and publish and distribute educational material to the general public and soldiers.

■ Budget and Action Plan Schedule

(Unit: KRW 100 million)

| Classification | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|---------------------------|------|------|------|------|------|-------|
| Research on DMZ ecosystem | 1.4 | 2 | 2 | 2 | 2 | 9.4 |

1-11 Sustainable Natural Disaster Mitigation

- Lead department: National Emergency Management Agency (NEMA)
- Collaborating department: Ministry of Agriculture & Forestry (MAF), Ministry of Maritime Affairs & Fisheries (MOMAF), Ministry of Environment, Ministry of Construction & Transportation

Overview

Conventional disaster management and its surrounding environment have been changing. Unfixed shapes and forms of disasters emerge and large-scale disasters and their devastating consequences are reported ignoring time and national or regional boundaries because of urbanization and densification in the modern society. Recognizing “construction of safe Korea” as one of the top priorities in the government policies, the Korean government established the National Emergency Management on June 1, 2004, which is an independent agency responsible solely for the coordination of disaster management.

Since NEMA's initiation, the Disaster and Safety Management Basic Act has been established, the Natural Disaster Countermeasures Act was amended, and various regulations covering disaster mitigation and recovery are introduced and implemented. Demands on fundamental disaster prevention and proactive countermeasures are also increased including enhanced international cooperation. The future plan and direction will be more focusing on the enlargement of disaster management infrastructure, increase of investment on mitigation, establishment of self-responsible disaster management system, and feedbacks on disaster management policies.

1-11-1. Implement a Pre-Disaster Impact Assessment System

Objective

: Implement a Pre-Disaster Impact Assessment System

Action Plan

Set up operational methods according to the types and fields of development plan.

Revise targeted plans continuously including items and criteria.

Provide professional education programs fostering experts for the review of pre-disaster impact assessment programs.

Provide basis for adequate consultation fees to make pre-disaster impact assessment report.

1-11-2. Research and Develop Natural Disaster Mitigation Technologies

Objective

: Enlarge pan-governmental research and development investment

Action Plan

Shift the paradigm to prevention, mitigation, and preparedness and promote research and development and disaster-related industries.

Increase investment in R&D and seek efficiency.

1-11-3. Improve Natural Disaster Forecast and Early Warning

Objective

: Expand investment for rapid natural disaster early warning

Action Plan

Based on the five year (2005~2009) enlargement plan of the Automatic Rainfall Warning System, invest about US\$41 million in 125 areas in 55 cities in 9 local governments.

Establish local CBS (Call Broadcasting Service) operation system for more accurate and rapid warnings, i.e., from current 8 minute to 4 minute lead-time and for local government active participation in early warning.

1-11-4. Improve the Evacuation System

Objective

: Complement the weak points in the current evacuation system

Action Plan

Improve current P-EP (Pre-Evacuation Plan) and E-30 (Evacuation in 30 Minute) Plan against wind and water-related disasters and earthquakes designating hazard zones and evacuation route in the local governments.

1-11-5. Maintenance of Disaster-Prone Areas

Objective

: Establish mid- and long-term maintenance plans and increase related budget

Action Plan

Survey disaster-prone areas and facilities such as flooded areas, dangerous bridges and reservoirs, and steep slopes, which cause repeated damages.

Include those dangerous areas or facilities among the "Disaster-Prone Area" so that more systematic investment can be warranted.

Enlarge national budget support for the maintenance of the Disaster-Prone Area, which is currently managed by the Balanced Development Special Budget.

1-11-6. Improve Small Creeks Management

Objective

: Encourage local governments' investment and support disaster mitigation practice through small creek improvement

Action Plan

Propel close-to-nature river improvement practice preserving natural characteristics of small creeks.

Connect with upper streams removing disaster factors hidden in the river basin.

Promote matching fund between local budget and national support budget in the Special Tax Management Special Budget so that the budget limit for the small creek improvement can be expanded.

1-11-7. Introduce an Insurance Program for Storm Disasters

Objective

: Establish an insurance program and expand it gradually

Action Plan

Establish basis for compensation for each damaged facility and objective by wind and flood.

Expand gradually from pilot project and simulation to real-world projects covering houses, greenhouses and cattle sheds throughout the country by 2009.

1-11-8. Introduce a Rehabilitation Support System

Objective

: Organize a disaster mitigation and countermeasures council and introduce a pre-review system for disaster recovery projects

Action Plan

Investigate, analyze, and assess disaster cause, preparedness, aftermath, and recovery activities after

organizing the Disaster Mitigation and Countermeasures Council.
 Review the working design for the recovery plan and reconstruction beforehand.
 Provide assessment criteria for the recovery works.

<Action Plan Schedule>

| Strategy | Plan | 2005 | 2006 | 2007 | 2008 | 2009 |
|---------------------|---------------------------------------|-------------|-------------|-------------|-------------|-------------|
| Infrastructure | Pre-Disaster Impact Assessment System | | | | | |
| | Research and Development | | | | | |
| Status Control | Natural Disaster Early Warning | | | | | |
| | Evacuation System | | | | | |
| Mitigation | Maintenance of Disaster-Prone Areas | | | | | |
| | Improvement of Small Creeks | | | | | |
| Self-Responsibility | Insurance Program | | | | | |
| Feedback | Systematic Recovery Support System | | | | | |

1-12 Sustainable Coastal and Marine Development Plan

- Lead department: Presidential Commission on Sustainable Development
- Collaborating department: Ministry of Maritime Affairs and Fisheries, Ministry of Environment

Overview

Korea's Exclusive Economic Zone (EEZ) is 4.5 times the national territory while its coastline is 11,914 km long and the size of its foreshore area is 2,550 km². However, as Korea has lost more than 20% of its coastal wetland area since 1987, its marine ecosystem is being increasingly interrupted and fishery resource habitats are decreasing significantly. Although marine water quality is second grade, heavy metal and harmful chemical substances are polluting special management areas such as industrial complex, harbors and coasts near cities and the fishery production amount is on the decrease. While the international community furthers interest in the coast and sea, international cooperation needs to be intensified. It is also an urgent matter to develop a policy to satisfy new demands for coastal policies due to the increased conflicts of interests between harbor & coastal development and marine environment & resource protection. The following 8 core policy tasks will be implemented with the aim of striving for sustainable development of the coastal and marine environment where humans and nature coexist.

1-12-1. Introduce and implement the no-net-loss system for natural coasts and habitats

Objective

: Set up a national agenda and establish a management system

Action Plan

- Prepare basic regulations to introduce the “no-net-loss system for natural coastal line and habitats”,
- Put management goals for restoration of natural coasts and habitats in numeric value and apply them in coastal and habitat management,
- To that end, finalize a national agenda such as a “National Declaration on the Prevention of Additional Loss of Large Scale Natural Coasts and Habitats”.
- Integrate the dualized monitoring investigation system by relevant laws,
- Examine, in joint participation with relevant departments, current situations of a national integration of natural coasts and habitats, and
- Establish a management system.

Reinforce management capacity to meet the increased demand for natural coastal and habitat

management policies.

Performance Indicator

Introduction of the no-net-loss system for natural coasts and habitats

1-12-2. Integrated management of coastal and marine preservation Areas

Objective

: Set up a committee for integrated management of national coastal and marine preservation areas

Action Plan

- Set management goals by establishing a Committee for Integrated Management of National Coastal and Marine Protected Areas, an organization exclusively responsible for the formulation and implementation of a national strategy, and
- Formulate a “Coastal and Marine Biodiversity Conservation Plan” in joint participation of relevant governmental departments.
- Improve the designation and management process by ensuring scientific standards for designating coastal and marine protected areas and systematizing the designation procedure of the protected areas, and
- Strengthen post management through the introduction of regular monitoring and evaluation system.

Reinforce educational promotion and identify best practices to change general public’s perceptions on protected areas.

1-12-3. Build an estuary environment management system

Objective

: Carry forward an estuary restoration policy and formulate a comprehensive estuary environment management plan

Action Plan

- Revise the “Public Water Surface Reclamation Law” to halt large-scale estuary development projects at the national level and prevent additional destruction of estuary wetland, and
- Push forward an innovative estuary restoration policy including the improvement of the structure of estuary embankments.

To preserve the Han River estuary, select as a pilot project the formulation and the implementation of the “Comprehensive Han River Estuary Environment Management Plan” at the national level and make concentrated investment in the project.

1-12-4. Improve the dualized coast and sea water quality management system

Objective

: Establish a coastal basin consultation system based on inter-departmental cooperation

Action Plan

- Establish a basis for introducing a system to periodically renew an emission permission of pollutant emission facilities (cycle of 5 to 10 years) and drive it forward as a long-term task, and
- Induce the continuous reduction of pollution carrying capacity and support a successful implementation of the total carrying capacity management system of water quality.

Enforce the total coastal pollution carrying capacity management system in special sea management areas and gradually expand it to more sea areas, taking into account regional economic conditions.

In order to cope with the decrease in management efficiency caused by the dualized management system, establish a “coastal basin consultation system” based on the cooperation between the Ministry of Environment and the Ministry of Maritime Affairs and Fishery, and increase professionalism in management.

In the long-run, integrate management of 4 major rivers of the Ministry of Environment and sea management areas of the Ministry of Maritime Affairs and Fishery, and examine the enactment of a ‘water system and coast environment management law’ as joint legislation.

1-12-5. Establish a management system of warm water discharges from power stations

Objective

: Devise measures to manage warm water discharges

Action Plan

Establish a deliberation committee on warm water discharge management system and a specialized research institute

Set a base clause in the sea pollution prevention law for establishing standards for warm water discharges from power stations, as well as a deliberation committee on warm water discharge management.

Improve the refrigeration system in power stations and maximize the use of warm water discharges.

Performance Indicator

Establishment of a management system of warm water discharges from power stations

1-12-6. Exclusive Economic Zone (EEZ) and Continental Shelf Management

Objective

: Formulate and implement a “Comprehensive EEZ Management Plan”

Action Plan

Formulate and implement a “Comprehensive EEZ Management Plan” for conflicts related to maritime boundary delimitation, resource development and territorial disputes.

Increase investment in ocean research to identify characteristics of surrounding seas as well as natural resources and strengthen capacity to deal with the issues related to the ocean perimeter.

Improve the large marine management capacity by strengthening national defense capacity for an effective control of the marine jurisdiction and national territory protection.

1-12-7. Promote an International Marine Peace Park in the West Sea of Korea

Objective

: Adopt it as a South-North cooperative project and build a public-private partnership system

Action Plan

Adopt the “International Marine Peace Park” as a South-North cooperative project and build a public-private partnership system to promote the project.

Conduct information exchange to secure data and information and a joint research project between the Republic of Korea (R.O.K) and the Democratic People’s Republic of Korea (D.P.R), and make the best use of international organizations to encourage D.P.R’s active participation.

Performance Indicator

Development and implementation of a joint project between R.O.K and D.P.R, which is carried out in the form of public-private partnership

1-12-8. Integrate policies and promote participatory marine governance

Objective

: Reinforce the central deliberation commission on coastal management and set up a special committee on coast and marine

Action Plan

Reinforce the role of the “Central Deliberation Commission on Coastal Management” within the

coastal management law in order to strengthen policy coordination in coastal areas.

Set up a “Special Committee on Coast and Marine” within the Presidential Commission on Sustainable Development to support policy coordination at the government-wide level.

Strengthen capacity as well as the coordination system between development and preservation policies within the Ministry of Maritime Affairs and Fishery.

Performance Indicator

Progress results of the central deliberation commission on coast management

Whether the special coast and marine committee was set up within the Presidential Commission on Sustainable Development or not, as well as the Committee’s performance in policy coordination

1-13 Create a Clean and Lively Coastal and Marine Environment

- Lead department: Ministry of Maritime Affairs and Fisheries (MOMAF)
- Collaborating department: Ministry of Environment (MOE)

Overview

It is well recognized that coastal zones, islands, and oceans are the most critical elements for securing sustainable development of a nation and the world. As Korea is a maritime nation built upon three seas surrounding its peninsula and its sovereign waters comprise 4.5 times of the land territory, the development pressure on the coastal zone has been historically intense and is anticipated to continuously increase. The consequence of such pressure on the coastal and marine environment has been severe resulting in a damaged and polluted coastal and marine environment. This was especially true over the last 40 years as this period in the mid 20th century saw a development-oriented policy to build a new economy based on industry and manufacturing along the coastal region with little consideration for the environment. Although government policy has changed recently, such central government policy is often neglected in favor of local development. Responding to this trend, creation of a clean and environmentally revitalized coastal and marine environment is recognized as one of the national objectives for an *ocean-based prosperous nation through a 'Blue Revolution'*. In order to complement existing policies, the following national priority policies will be carried out: the establishment of an integrated coastal and marine management system, the implementation of scientific and systematic management of coastal marine ecosystem and the promotion of international cooperation in marine environment in the regional seas, especially in the East Asian Seas.

1-13-1. Establish an Integrated Coastal Zone and Marine Management System

Objective

: Achieve balanced development through systematic use, development and conservation of coast and ocean

Action Plan

Introduce the 'coastal area use and zoning plan,' considering the local characteristics of coastal zones with an aim of creating an integrated and systematic coastal zone and marine management system with a focus on ocean-centered management.

Implement coastal zone environment improvement projects through the systematic operation of the

coastal zone maintenance 10-year plan (2000~2009), in order to protect the coastal zone and natural seashores from natural and man-made disasters.

Develop and enforce information mapping of themes on the coastal zones and coastal zone management information system in order to realize integrated coastal zone management.

Promote public participation in coastal zone management through development of education and training programs.

Co-ordination mechanism based on the participation of citizen, local administrators and their related organizations, developers and NGOs will be initiated to secure the nation's sustainability and the roles and functions of the *Central Coastal Zone Management Council* will be enhanced for better coordination and integration of individual development plans of concerned ministries. The Integrated Coastal Zone Management Act will be enforced or revised.

Performance Indicator

Introduction of 'Coastal Zoning' policy

1-13-2. Implement the scientific and systematic management of coastal zones and marine ecosystems

Action Plan

To strengthen the synthesis and unity of policy, a research system will be established that will interlink coastal lands, coastlines, tidal flats, and offshore.

Establish and operate resident-participating coastal zone and marine observation network and further strengthen the marine environment management, particularly in bay area.

Consolidate an integrated coastal zone and marine environment information management system to establish a combined utility system of marine survey data obtained by various methods.

Continuously conduct national survey of habitat and ecosystem to establish relative national policy.

Performance Indicator

Integrated coastal zone and marine environment information management system

1-13-3. Promote international and regional cooperation in the East-Asian Seas

Objective

: Reinforce regional cooperation to protect the environment of East-Asian Seas

Action Plan

Establish Korea's initiative in the protection and coastal zone management of the East Asian seas by increasing ODA (official development assistance) in the area of marine environment and coastal management.

Strengthen support for and utilization of the multi-national marine environment management programs including PEMSEA, YSLME, NOWPAP, etc.

Performance Indicator

Participation in regional cooperation in the East-Asian Seas

1-14 Achieve Sustainable Fisheries

- Lead department: Ministry of Maritime Affairs and Fisheries (MOMAF)

Overview

Available fishing areas for Korea have been reduced by the declaration of 200nm EEZ by world coastal nations including the three northeast Asian nations and tidal flat reclamation and the deterioration of coastal water quality due to pollution are causing the decrease in productivity of coastal and offshore fisheries. Although fisheries industries provide a significant amount (36%) of animal protein, the industries are continuously being reduced due to decreasing fish-catch and increasing costs such as high fuel prices. Many fishery nations plan to introduce the ecosystem-based fishery resources management systems, reorganizing the international fisheries order. Korea is required to set management policy priorities and S&T themes to minimize the effect of fishery activities on the marine ecosystem, to recover and maintain marine resources, and to globalize the fishery and marine production management systems with an aim to secure healthy ecosystems and sustainable resources as well as new competitive fishing production structures.

1-14-1. Establish an integrated fishery resources management system

Objective

: Reorganize related laws and ordinances and establish a fishery management system

Action Plan

Regulate and review fishery permits every five years through the reinforcement of ordinances as required by the permit office.

Maintain the marine product resources of 10 million tons and a steady fishery production of 1.5 million tons by 2015, since coastal zone fisheries resources, which have been rapidly decreasing worldwide, are in urgent need of recovery.

Strengthen scientific management and effective development of marine ranching and post facto management of artificial fish habitats to improve the outcomes of these projects.

Establish a precautionary fish resources management system through adopting the TAC concept on important fish species and implement a land observer system in the near future in addition to an onboard observer system for the long-term management of fisheries resources.

Encourage, promote and establish self-management systems widely for the fishermen to play the role of managers, with an aim to effectively control the fisheries products and resources.

Enact practical and powerful laws and regulations such as the 'Marine Products Resources Management Law' based on the scientific re-examination of traditional resources management laws and

regulations.

Performance Indicator

Near-shore fishery yields and number of near-shore fishing permits

1-14-2. Nurture healthy fishing grounds and a future-oriented fishery industry

Objective

: Adjust the structure of the near shore fishery and carry out continuous maintenance

Action Plan

Adjust the number and scale of fishing boats classified under the near shore fishery and control certain fishing practices (i.e., diving/submersible/ bottom, dredge) through special policies.

Study the reorganization of fishing zones in the coastal waters fishery, consulting the ecosystem-based long-term study conducted by research institutes and fishermen's experiences and opinions on some sensitive issues.

Restrict and manage fishery zones for special species under the special supervision of local government, considering the characteristics of coastal water fisheries classification.

Continuously regulate illegal, excessive and densely aggregated mariculture facilities through scientific evaluation for the fishing ground management.

Encourage environment-friendly usage of offshore areas such as the development and installation of offshore underwater fish-culture nets in order to allow the recovery of the environment and ecosystem of coastal zone fishing grounds.

Performance Indicator

Marine culture products and introduction of offshore mariculture

1-14-3. Establish the advanced fishery order

Objective

: Apply the management system of multilateral regional fisheries organizations and establish environment-friendly management systems

Action Plan

Increase fishing licenses for Korean fishing vessels at major coastal nations through building cooperative relationships by concluding and activating fisheries agreements.

Actively take part in the process of establishing regional fisheries organizations.

In order to prevent illegal fishing activities, strengthen public relations and enforcement to promote self-regulated fisheries order under the concept of precaution and self-sustaining and facilitate fishermen's transfer to other industries.

Induce self-regulating fishing grounds management by operating a system of voluntary declaration of unlicensed fishing and excessive mariculture facilities.

Promote the adoption of a certificate system similar to that of the Eco-Labeling of Marine Stewardship Council throughout the Korean fishery industry as a mid- to long-term goal.

1-14-4. Environment-Friendly fisheries products and welfare of fisheries communities

Objective

: Improve hygiene control systems and develop multi-functional fisheries ports

Action Plan

Enhance the quality of fisheries products and public relations strategies in order to introduce the concept of well-being in fisheries product.

Introduce and expand the recording and tracking of documentation system for fisheries products as well as the HACCP system for important mariculture grounds.

Promote high quality and high added-value fisheries products by enhancing the quality certification system such as the environment-friendly fisheries product certificate system.

Supply hygienically clean and safe fisheries products through reinforcing the safety of marine products based on extended monitoring of the products during the production phase.

Encourage revitalization of regional economies through the production of high value-added fisheries products.

Develop multi-purpose fisheries ports equipped with all the convenient facilities for both fisheries and residence to encourage population inflow into fisheries communities.

Implement systematic support strategies for fishermen, considering fishermen's losses and costs when fisheries structures are reorganized and new systems are introduced.

Performance Indicator

Documentation of marine products safety investigation results

1-15 Secure Marine Biodiversity

- Lead department: Ministry of Maritime Affairs and Fisheries (MOMAF)
- Collaborating department: Ministry of Environment (MOE)

Overview

In 1992, the UN Conference on Environment and Development (UNCED) discussed and adopted the Rio Declaration on environment conservation and sustainable development as well as new international conventions on climate change and biodiversity. The biodiversity convention firmly urges its members to fulfill a detailed inventory of organisms living in each country, periodic surveillance, guarantee of manpower in systematic classification, performing systematic organism classification projects, and confirming the member's sovereign authority on its biodiversity resources. Since each member considers biodiversity an important resource, policies investigating and preventing species loss will be reinforced. Accordingly, Korea is determined to establish an integrated management system to investigate and secure marine biodiversity and marine diversity resources by monitoring and recording the biodiversity in sections of its coastal zones as well as setting up a special marine species management system combined with international cooperation.

1-15-1. Monitoring of marine biodiversity in coastal waters

Objective

: Long-term monitoring of coastal water ecosystems and securing reliable data

Action Plan

Develop marine diversity and biodiversity preservation and management policy through periodic long-term and continuous monitoring and investigation of large and small organisms living within these ecosystems and enforce the 'Marine Ecosystem Preservation and Management Law' to support such labor-intensive and long-term action.

Secure investigation reliability by developing world-class standardized marine diversity and biodiversity monitoring methods. Information on the ecosystem diversity and organism diversity sampled during the monitoring activities will be permanently kept in the Marine Organism Resources Archive.

Performance Indicator

Implementation of sectional ecosystem diversity and biodiversity sample collection and monitoring

1-15-2. Establish the DB system on marine biodiversity

Objective

: Detailed inventory of marine ecosystem and GIS based genetic information

Action Plan

Promote systematic preservation and management of marine ecosystem and organisms by documenting the inventory on ecological information and marine organisms living within the diverse ecosystem and assessing the measurement of marine biodiversity preservation.

Construct GIS database for eco-geographic inventory and genetic information on marine organisms within the sovereign waters of Korea.

Promote the species and ecosystem diversity information system and encourage and foster domestic experts by implementing basic marine biodiversity preservation plans.

Performance Indicator

Documenting marine organism species inventory.

Documenting genetic information database

1-15-3. Establish the indigenous marine species management system

Objective

: Systematic investigation and development of protection measures for target species

Action Plan

Formulate protection plans based on the systematic investigation of indigenous species in Korean coastal waters including such measures as marine ecosystem basic surveys, marine biodiversity research and basic investigations of coastal zone wetlands.

Effectively manage coastal water ecosystems with a clear understanding of species introduced through ballast water. For this, promote a marine ecosystem-disturbing species management plan as well as the development of ballast water treatment and management technology.

Conduct research programs for the prediction and management of newly discovered species emerging as result of global climate change.

Performance Indicator

Introduction of ballast water management system

Implementation of specific marine species (introduced species) investigation

1-15-4. Promote international cooperation in marine biodiversity

Objective

: Promote international cooperation projects

Action Plan

Promote international cooperation projects as a long-term programme with interested partners to secure useful marine organism resources as a part of whole marine ecosystem study and not through fragmentary species investigation.

Promote international exchange of specialists related to marine biodiversity by organizing international workshops on various themes such as the management of marine protection areas.

Performance Indicator

Development of responses to the Convention on Biodiversity

Implementation of international cooperation in marine biodiversity

1-16 Establish Marine Pollution Protection System

- Lead department: Ministry of Maritime Affairs and Fisheries (MOMAF)
- Collaborating department: Ministry of Environment (MOE)

Overview

Korea has been carrying out an inclusive and systematic ocean policy, 'Ocean Korea 21' ('02) for reasonable utilization/development and preservation of coastal zone and marine resources since the establishment of the Ministry of Maritime and Fisheries in 1996. The marine pollution protection system is developed as a part of sustainability management system for national sovereign domain and its natural eco-environment is being established by participating government agencies. Due to Korea's declaration of the EEZ in 1996, Korea urgently needs the Marine Pollution Protection Plan at a standard satisfying and meeting the obligation stated in the international regulations. This plan will help Korea overcome the limited means to deal with the seas surrounding Korea, which is distinctive in environmental characteristics and open to various forms of pollution. Korea plans to implement the integrated marine environment management system, a precautionary management of marine pollution and a continuous surveillance and assessment system for marine environment as well as promote international cooperation.

1-16-1. Establish integrated marine environment management system

Objective

: Establish integrated ocean governance

Action Plan

Lay the basis for integrated marine pollution management by consolidating laws related to the marine environment such as enactment of the marine environment management law.

Improve the marine environment, by effectively controlling pollution sources affecting the marine environment, including the introduction of the Total Daily Maximum Load (TMDL) system, a management tool for total coastal water pollution load management. To do this, legal framework is to be prepared and applied to wider coastal areas.

Improve and expand the marine environment surveillance system by empowering the special judicial authority to the government employees such as coast guards and local maritime and fisheries officers who are in charge of marine environment services.

Performance Indicator

Consolidation of marine environment laws and systems
Number of areas under the TMDL system

1-16-2. Marine Pollution Prevention by Action Prior to Pollution

Objective

: Prepare Policy Measures to Reduce Marine Pollution Sources

Action Plan

Carry out an integrated management plan for the reduction and systematic management of ocean dumping by annually reducing ocean dumping of livestock waste waters and sewage sludge and prohibiting ocean dumping from 2012.

Performance Indicator

Reduction rate of ocean dumping of livestock waste and sewage sludge

1-16-3. Establish a Marine Environment Surveillance System

Objective

: Establish a Public Participation and Integrated Marine Monitoring and Surveillance System

Action Plan

Promote systematic marine environmental monitoring by enforcing the national marine environmental monitoring network in which seasonal monitoring will be expanded to monthly monitoring with more sampling items such as heavy metals, dioxins and environmental hormones.
Carry out intensive monitoring of marine pollution by establishing the integrated marine environment surveillance system incorporating the Korea Coast Guard and public sector.

Performance Indicator

Number of monitoring stations for national marine environment monitoring network

1-16-4. Strengthen International Cooperation

Objective

: Implement the recommendations of the International Conventions and Enhance Environmental Cooperation with Neighboring Countries

Action Plan

Submit a national action plan to the 2nd inter-governments meeting of GPA (Global Plan Agreement) on protection of marine environment from land activities.

In cooperation with East Asian environment management organizations, introduce and demonstrate marine environment management technology of Korea in the East Asian Countries' domestic markets.

Establish a cooperation system with neighboring countries to combat jointly for large-scale marine pollution accidents through an international joint emergency plan, preventive support, collaboration in the utilization of prevention equipment, emergency transportation and customs clearance systems, and the transfer of prevention technology.

Establish a national response system for the Global Marine Environment Assessment (GMA).

Performance Indicator

Submission of the GPA national report, the Korean NPA.

1-17 Sustainable Transportation Policy

- Lead department: Ministry of Construction and Transportation
- Collaborating department : Ministry of Government Administration and Home Affairs, Ministry of Maritime Affairs and Fisheries, Ministry of Environment, Presidential Commission on Sustainable Development

Overview

Our transportation policy has played a role of the artery of the national economy so far but lacked consideration for sustainable development. Since the UN Conference on Environment and Development in 1992, policy discussions and institutional arrangement for establishing a sustainable transportation system began in earnest, particularly in advanced countries. The World Summit on Sustainable Development (WSSD) in 2002 also recommended a change to a sustainable transportation system that can increase energy efficiency and reduce pollution as well as negative impacts on health. The Participatory Government selected the establishment of a sustainable national land and natural resource management system as one of the 100 national tasks. To this end, a paradigm change in the transportation policy will be made to enable the improvement of policy integration and efficiency of the nation-wide transportation system by the followings: - breaking from the previous supply expansion-oriented policy, - inducing a change in the transportation system that embraces environmentally friendliness, energy efficiency, transportation efficiency and safety, - taking proactive measures to social changes such as an ageing society and - improving the daily life transportation system for betterment of quality of life including special care for the transportation poor and the safety.

1-17-1. Balance the investment on motorways and railroads

Objective

: Increase transportation efficiency

Action Plan

- Modify and complement the ‘First National Key Transportation Network (2000 – 2019)’ in order to build an efficient allocation structure between transportation means.
- Ensure the implementation of the plan by integrating it into the mid-term financial plan and complement it at the network level through periodic performance evaluation every five years.

In order to improve equity of facility investment between transportation facilities, raise the current percentage (35%) of the National Treasury’s support for the construction of highways and expand support for maintenance costs of general railroads (currently 30%).

Formulate a plan to promote the use of railroad cargo including the establishment of a ‘comprehensive plan to revitalize compound physical redistribution’ and make it obligatory to consider the construction

of a railroad service line when constructing major harbors and industrial complexes.

Performance Indicator

Extend railroads and city railroads

1-17-2. Promote public transport and green transport

Objective

: Promote environmental transport

Action Plan

Induce each local government's optimal selection of public transport considering each city's characteristics such as an arterial express bus system and set the standards for governmental support.

In order to revitalize public transport, aim at public transport-oriented city planning linked to land use planning when building new cities such as a multifunctional administrative city and an innovative city.

- Improve the transport environment at the district level by introducing 'intensive maintenance districts' and public-transport-only districts for both the 'parking lot identification system' and the restoration of the pedestrian prevention function of district roads which turned into parking lots and
- Formulate a 'comprehensive plan to improve the living environment of district centers'.

Set up a plan to secure pedestrian and bicycle roads and use closed roads and railroads.

Expand in stages the institutions and the zones for purchasing low-pollution cars, the initiative which has been underway since 2005, and set up guidelines for constructing environmentally friendly transport facilities.

Performance Indicator

Expansion of bicycle roads

1-17-3. Improve the transportation system for the "Transportation poor"

Objective

: Improve equity of transportation

Action Plan

Formulate a long and mid-term comprehensive plan to increase mobility of the 'transportation poor' and build a systematic transport environment including an obligatory establishment of mobile facilities, a phase-in introduction of non-step bus, an improvement of the breadth and slope of sidewalks and a maintenance of the pedestrian boundary in front of the crosswalk.

Devise measures to strengthen traffic safety including the reinforcement of education on and promotion of the traffic safety for the 'transportation poor'.

Performance Indicator

Number of uses of city trains by the transportation poor

1-17-4. Strengthen traffic security

Objective

: Secure traffic security

Action Plan

Rationalize standards for dealing with habitual law offenders and dangerous drivers including the 'Three Strike Out System', their exclusion from a list of amnesty grantees and the increase of negligence fine.

Expand and establish in phases traffic security facilities including unmanned control equipment within a traffic accident danger zone and make the education on traffic security obligatory in elementary, middle and high schools.

Performance Indicator

Number of people who died from traffic accidents (per 10,000 cars and per 100,000 people)

2. Social Integration and National Health Promotion

2-1 Gender -based Policy Impact Assessment and Promotion of Female Economic Participation

- Lead department: Ministry of Gender Equality and Family
- Collaborating department: Ministry of Labor, The Civil Service Commission, Ministry of Science and Technology, Small and Medium Business Administration, and others

Overview

After the adoption of Beijing Platform for Action in the Fourth World Conference on Women in 1995, gender mainstreaming has been established as the key strategy to achieve gender equality. Korea has also managed to create foundations for gender equality policies such as the enactment of Women's Development Act and other measures, but gender-blindness still persists in policy enforcement. To provide equal access and control of resource and power to both genders, to enhance policy quality by taking into consideration the gender difference in policy demands, and to increase women's labor force participation rate are crucial policy directions to secure national growth potential and to prepare for the aging society. Policies such as building of gender equal policy innovation system and female human resource development system, establishing the infrastructure to make work and family compatible have been suggested.

2-1-1. Gender-based policy impact assessment

Objective

: Application of gender-based analysis on major policies

Action Plan

Apply flexible criteria for gender-based analysis and extend subjects concerned.

Strengthen the project selection criteria for analysis and improve it through the presentation of expert

opinions on in-depth analysis to the authorities concerned and other measures.
Establish the infrastructure to manage analytic plan and feedback for the relevant organizations, provision of consulting service, in-depth analysis, and others.
Ameliorate education on gender-based analysis and train professional agents.
Induce effective gender-based analysis results and formulate a plan to institutionalize it through feedback.
Plan various incentives such as different awards, the introduction of exemplary assessment cases and improve public awareness.

Performance Indicator

The number of institutions participating in gender-based analysis

2-1-2. Increased female employment and elimination of discrimination

Objective

: Expansion of employment support service to the subjects concerned

Action Plan

Designate and support the "Career Development Center for Female Students" within universities to develop, on a national level, female human resources with high educational background.
Provide human resource development to economically non-active women by Women's Center (117 centers) and Women's Human Resource Development Center (50 centers) that belong to local governments.
Enforce measures such as "Business Support for Unemployed Women Household Heads" (Ministry of Labor) to boost women entrepreneurs.
Enforce "Affirmative Action" to reduce discriminatory employment practices and to promote the equality of employment.

Performance Indicator

Employment program completion rate and employment rate

2-1-3. Train high-level female workforce

Objective

: Increase high-level female participation in large companies, public enterprises, and government

Action Plan

Implement policies to sustain female employment and to increase nomination of female managers for increasing number of female public officers and promoting women's representation.
Introduce equal employment opportunity program in large companies and public enterprises.
Extend human resource policies such as "Recruitment Target for Women Scientists" to promote the

training and the utilization of female work force in science and engineering, and build the infrastructure to support female scientists and engineers.

Performance Indicator

The ratio of female public officers in managerial positions (from 5th rank)
The degree of achievement in Recruitment Target for Women Scientists

2-1-4. Establish infrastructure

Objective

: Establish a social infrastructure through which work and family become compatible

Action Plan

Provide basic subsidies to improve the service quality of private childcare facilities.
Expand childcare service to lessen childcare burden.
Promote social responsibility for the protection of motherhood and equal responsibility on childcare.
Promote family-friendly working environment.

Performance Indicator

Number of children receiving differentiated childcare fee support of the government
The rate of free childcare for the children under the age of five

■ Budget and Action Plan Schedule

(Unit: million won)

| Item | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|---|-----------|-----------|-----------|-----------|-----------|------------|
| Total | 1,844,850 | 2,415,554 | 3,073,341 | 3,767,856 | 4,206,190 | 15,307,791 |
| Employment Support Service | 4,419 | 4,819 | 5,219 | 5,169 | 4,719 | 24,345 |
| Training of High-level Female Human Resources | 1,800 | 2,000 | 2,500 | 3,500 | 3,500 | 13,300 |
| Establishment of Infrastructure | 1,838,631 | 2,408,735 | 3,065,622 | 3,759,187 | 4,197,971 | 15,270,146 |

2-2 Strengthen Social Foundation for Agricultural and Rural Development

- Lead department: Ministry of Agriculture and Forestry
- Collaborating department: Ministry of Environment, Ministry of Construction and Transportation, Ministry of Maritime Affairs and Fisheries, Korea Forestry Service

Overview

Following progress in DDA negotiations and expansion of FTAs around the globe, market liberalization is being accelerated and competition is becoming fierce. Under such circumstances, it is expected that tariffs as well as domestic subsidies will decrease substantially as a result of the DDA negotiations. On the other hand, Korean farmers are faced with increasing financial difficulties due to a growing gap of development between the whole national economy and agricultural sector, and the deteriorating trade conditions for farmers. Moreover, product distribution environment has been changing drastically due to a number of reasons such as diversified consumption patterns, and the increase of consumers' interest in food safety and environment. To achieve sustainable rural development, the government will focus its efforts on pursuing some major selected tasks, namely strengthening of agriculture fundamentals, stabilization of farmers' income and farm management, the improvement of rural welfare and the development of rural areas.

2-2-1. Agriculture restructuring

Objective

: Adjust the structure of agriculture according to the market principle and convert it into environmentally friendly and high-quality farming

Action Plan

Reform government purchasing system, contract system with minimal price support between field vegetable farmers and buyers, and milk pricing system in a way that the price of agricultural goods will be decided based on the market principle.

Provide various support such as risk management and consulting services, and improve systems while focusing on stabilizing farmers' income through increase in farming scale.

Ease regulations on use and ownership of farmland to support rural vitalization and competitiveness increase while preserving good quality farmland as much as possible.

Convert high input agricultural methods with excessive use of fertilizers and agro-chemicals and massive hog raising in a small space into environmentally friendly farming.

Strengthen institutional mechanism for safety management of agri-food such as introduction of GAP and HACCP to provide safe food to consumers.

Nurture co-marketing corporation into the main body of distribution at production sites by focusing on innovating agricultural product processing centers such as APC and RPC.

Endeavor to develop good brands of agricultural products that have certain scale as strategic pillars of agricultural/livestock product distribution, and create joint brands for at least 50% of the current brands of agricultural products by 2013.

Integrate on-line distribution methods including e-commerce on top of off-line distribution bases such as wholesale markets, comprehensive distribution centers and APC.

Establish an animal disease control system focusing on prevention, and support stable growth of livestock industry by intensifying initial disease control when there is a disease outbreak.

Prepare an innovation system by forming regional agricultural clusters linking business, industry, and academia, and promote technology development that will lead agricultural innovation such as setting a course of R&D investment and practical action plan based on the Agricultural Technology Road Map.

Explore new ways to develop agriculture by pursuing strategic export marketing that is differentiated from the existing one and specific to each different market and product, under the goal of achieving US\$ 5 billion export of agri-food by 2013.

Build the Information System that supports agricultural management and encourage farmers to produce high quality products within the knowledge-based agricultural system utilizing IT.

Performance Indicator

Farm size per farmhouse

2-2-2. Stabilization of farmers' income and management of business risk

Objective

: Expand direct payment system and business risk management system, and explore diverse non-farm income sources

Action Plan

Increase the direct payment to the level of 10% of farmhouse income, while actively responding to the problem of farmers' income decrease with the progress of liberalization.

Fully establish a farm business risk management system by expanding crop insurance for natural disasters, putting an autonomous demand and supply control system in place and strengthening post restoration support.

Explore different non-farm income sources through various measures such as promotion of rural tourism, nurturing of folk industry and expansion of agro-industry complexes under the goal of increasing the share of non-farm income up to 67% by attracting the 2nd and 3rd industries into rural areas.

Performance Indicator

Increase of direct payment responding to agricultural market liberalization

2-2-3. Improve welfare in rural areas and promote regional development

Objective

: Expand social welfare system and basic welfare infrastructure for rural community and promote regional development

Action Plan

Implement regional development strategies centering around small provinces and towns by developing those small villages together with neighboring places and then reorganizing them into convenient and clean areas.

Drastically improve living conditions in rural areas such as housing, transportation, water supply and drainage facilities.

Promote urban and rural exchanges through urban/rural exchange centers, and attract human and financial resources by building garden houses and creating good environment for investment suitable for urban people's taste.

Performance Indicator

Increase of the amount of rural welfare support

Number of visitors to green tourist villages and increase of total revenue

2-2-4. Develop and preserve mountain villages

Objective

: Strengthen development capacity of mountain villages

Action Plan

Build the capacity of relevant public officials and the local residents to develop mountain villages, and nurture them as main bodies to lead the promotion of mountain villages.

Spread out the ripple effect by developing areas with higher potential investment effect centering around the mountain village promotion areas.

Increase non-farm income of rural residents by promoting urban and rural exchanges such as processing and selling special forest products in the region and introducing green tourism in mountain villages utilizing their resources (nature, culture and tourist attractions).

Performance Indicator

Satisfaction rate of mountain villagers

2-2-5. Improve forestry technology distribution system

Objective

: Reform forestry technology education system and enhance expertise

Action Plan

Inspire mountain owners with more than 1 ha who are capable of managing forests, by providing special management measures such as providing information on forest policies and technologies.

Reform forest technical guidance organizations and diversify guidance measures including the introduction of cyber technical guidance.

Improve the quality of forest technical guidance staff by adjusting their role and responsibility and enhancing their expertise.

Adjust the number of guidance staff and rationalize the share of support from national funds for the personnel expenses.

Performance Indicator

Number of forest technical guidance

2-2-6. Train and support forest managers

Objective

: Promote private forest business and forest product industry

Action Plan

Continue to select devoted forest owners and forest successors who lead the private forest management.

Promote forest technical guidance required for the development of high-income product and compound management, in order to motivate forest owners to actively engage in forest business.

Focus the government's support on production, distribution and processing of forest products in order to enhance international competitiveness necessary for the preparation for the WTO/DDA and FTA negotiations.

Establish a foundation for forestry informatization, to promote digitalization, brand development and standardization as well as e-commerce of forest products.

Performance Indicator

Increase in the forest production yield

■ Budget and Action Plan Schedule

Agriculture and Forestry

(Unit: KR in 10 billion, %)

| Classification | Total | 2004 | 2008 | % | 2009 | 2013 | % |
|----------------|--------|-------|------|------|-------|------|------|
| Budget | 9,630 | 3,994 | | 41.5 | 5,636 | | 58.5 |
| - subsidy | 8,011 | 3,293 | | | 4,718 | | |
| - loan | 1,619 | 701 | | | 918 | | |
| Fund | 2,299 | 1,057 | | 46.0 | 1,242 | | 54.0 |
| - subsidy | 913 | 418 | | | 495 | | |
| - loan | 1,386 | 639 | | | 747 | | |
| Total | 11,929 | 5,051 | | 42.3 | 6,878 | | 57.7 |

Forestry (included in agricultural and forest budget)

(Unit: KR in 100 million)

| | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|--|------|------|------|------|------|------|-------|
| Development and conservation of mountain villages | 145 | 183 | 211 | 209 | 221 | 232 | 1,201 |
| Improvement of forest technology distribution system | 101 | 107 | 124 | 107 | 107 | 107 | 653 |
| Foresters' Capacity building and income increase | 326 | 421 | 416 | 414 | 427 | 440 | 2,444 |
| Total | 572 | 711 | 751 | 730 | 755 | 779 | 4,298 |

Amount to be included for 5 years, out of KR 119 trillion investment and financing plan (2006~2010)

(Unit: KR in 100 million)

| | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|---------------|---------|---------|---------|---------|---------|---------|
| Budget + Fund | 103,289 | 106,843 | 109,201 | 124,888 | 131,799 | 576,020 |

2-3 Improve Residential Environment for the Urban Poor

- Lead department: Ministry of Construction and Transportation
- Collaborating department: Ministry of Finance and Economy, Ministry of Health and Welfare

Overview

The WSSD proposed achieving the improvement of the living conditions for slum residents in the initiatives for "cities without slums" by 2020. The government established a policy direction to secure self-support of the vulnerable including the guarantee of housing rights, health and job placement. The government established the plan to construct one million National Rental Housing units and half a million long-term rental housing units, and to achieve 85% of budget execution by 2012.

2-3-1. Improve the rental housing supply system

Objective

: Construct 1 million National Rental Housing Units

Action Plan

Construct 1 million units of long-term rental housing over 30 years with a net area of 36.4m² to 59.5m² with the government's financial support by 2012.

Provide the rental housing where necessary by establishing a supply system corresponding to demand.

Enable social mix between the classes by establishing a sustainable supply system.

Improve the eligibility and rent so that the affordable houses can be provided to tenants.

Activate the participation of tenants' representative organizations and communities in management.

Performance Indicator

Number of the National Rental Housing units

2-3-2. Improve the long-term rental housing supply system

Objective

: Construct 500 thousand long-term rental housing units

Action Plan

Construct 10 year long-term rental housing continuously to expand rental housing stock and secure a practical rental housing function.

Establish a system responding to decreased profitability caused by prolonged rental period and increased risk of bankruptcy.

Strengthen the role of the public sector and encourage the participation of financial institution investors with long-term funds.

Increase support for expanding the supply of rental housing and develop methods for improving housing welfare and eradicating speculation.

Performance Indicator

Percentage of long-term rental housing in total housing stock

2-3-3. Revitalize the residential environment improvement project

Objective

: Introduce an incentive system according to the results of the Residential Environment Improvement projects

Action Plan

The project cost should be decreased for the municipalities which show poor program execution, while the municipalities with good results should obtain additional support in yearly arrangement of the programs.

Consider ways to utilize the reserved cost from canceled projects as additional incentives, in order to execute the pilot projects in a manner of extensive arrangement for base development.

Consult on the method to provide the municipality-specific government's fund taking into account the status of municipal finance (Ministry of Planning and Budget).

Performance Indicator

Results of executing the projects for residential environment improvement

■ Budget and Action Plan Schedule

1. Construction of rental housing (2004 to 2012) (changed system of project cost allotment)

| Division | Division | Total | Finance | Housing Fund | Constructor | Occupants |
|----------|--------------|-------------------|-----------------|-----------------|------------------|-------------------|
| Changed | Type (11 15) | 100% | 40% | 40% | 10% | 10% |
| | Type (16 18) | 100% | 20% | 45% | 10% | 25% |
| | Type (19 24) | 100% | 10% | 50% | 10% | 30% |
| | Cost | 66.8 trillion Won | 13 trillion Won | 31 trillion Won | 6.7 trillion Won | 16.1 trillion Won |

* For Type and Type there are many estates the rents exceeds the market price, when the present standard is applied.

2. Project of Residential Environment Improvement (2005 to 2010)

| Division | Number of Districts | Cost | National Fund | Budget in 2006 |
|--------------------|----------------------------|----------------|----------------------|-----------------------|
| Project of 2 steps | 451 | 2 trillion Won | 1 trillion Won | 120.5 billion Won |

2-4 Realize “Participatory” Social Welfare

- Lead department: Ministry of Health and Welfare

Overview

In the wake of the Asian financial crisis, the Republic of Korea has witnessed an upswing in various social risks including poverty, disease, and unemployment. With the intent of addressing these problems, the Korean government established a framework for a Social Safety Net comparable to that of advanced countries. However, serious concerns were raised with the safety net system after industrial structure, labor markets, and income polarization entered into a vicious cycle that effectively worsened social conflicts and undermined economic efficiency. Amidst increasing demand for expanded protection for the underprivileged, the Korean government strengthened its welfare system by improving the NBLSS (National Basic Livelihood Security System), shoring up anti-poverty policies for the marginally poor, and reforming the delivery system of the social safety net scheme. Underlying these welfare policies and programs is the goal of the current administration to achieve a state of social welfare wherein growth and redistribution can be achieved based on civic involvement.

2-4-1. Strengthen the NBLSS

Objective

: Build a framework to expand livelihood assistance and emergency aid for the poor

Action Plan

Relax income criteria for determining candidate recipients from 120% to 130% of minimum cost of living. This action was implemented in July 2006.

- Criteria for people eligible for support were relaxed from "a lineal relative by blood, relevant spouse or brother/sister living with the person eligible for assistance" to "a lineal relative, relevant spouse, brother/sister or close kin living with the person eligible for assistance." The criteria were again changed to "a lineal relative, relevant spouse."
- To provide emergency aid for people in the low-income bracket, the Emergency Welfare Support Act was legislated and necessary programs and services were introduced by building an infrastructure for the emergency aid. These programs and services have been in place since March 2006.
- The Health and Welfare Call Center (telephone number 129) was established to provide prompt and professional counseling services. The Center has been up and running since October 2005.

Performance Indicator

Number of new beneficiaries of the NBLSS by year

2-4-2. Reinforce poverty eradication programs

Objective

: Establish and implement poverty-eradication programs tailored to the needs of low-income earners

Action Plan

Expand Health Insurance coverage for low-income earners in concert with institutional improvements aimed at rationalizing benefit expenditure.

Rationalize housing allowance and strengthen the link between housing policy and housing allowance.

Improve self-support and employment programs and services for low-income earners.

Provide 140,000 jobs in public sector by 2009 for able and willing elderly people.

Strengthen long term-care services for elderly people with serious illness by legislating the Long Term Care Insurance Law.

Relax allowance eligibility criteria for low-income earners with serious disabilities and increase number of work rehabilitation facilities to 374 by 2009.

Foster market for in-home services such as home assistant service and voucher service, and increase number of protection facilities to strengthen aid for persons suffering from dementia, stroke, or other serious disabilities/ailments.

Performance Indicator

Number of employed persons in social service sector

2-4-3. Improve social safety net

Objective

: Reform social welfare delivery service system into customer-oriented system

Action Plan

Expand social welfare service administrative offices and reform operational structure by setting up local government offices to oversee welfare services, and increase number of social welfare employees.

Enhance consumers' access to welfare services by establishing a national welfare information system by 2008, strengthen the system's link with Health and Welfare Call Center, and facilitate operation of Social Welfare Council.

Establish implementation and evaluation system for major tasks to reform social safety net by expanding social welfare expenditures.

Devise evaluation and analysis methodology for local autonomy welfare systems and provide incentives in line with evaluation results.

Performance Indicator

Establish evaluation methodology for social safety net system

■ Budget and Action Plan Schedule

(Unit: Million won)

| Category | Total | 2006 | 2007 | 2008 | 2009 | 2010 |
|-------------------------|----------------|---------------|---------------|---------------|---------------|---------------|
| Total | 156,398 | 22,449 | 31,569 | 33,801 | 33,784 | 34,795 |
| General budget | 79,541 | 10,610 | 16,012 | 17,248 | 17,431 | 18,240 |
| Fund | 39,317 | 6,665 | 7,744 | 8,128 | 8,313 | 8,467 |
| Local government budget | 37,540 | 5,174 | 7,813 | 8,425 | 8,040 | 8,088 |

2-5 Protect Foreign Workers' Rights through the Employ Permit System

- Lead department: Ministry of Labor
- Collaborating department: Ministry of Justice, Ministry of Health and Welfare, Ministry of Gender Equality & Family

Overview

Since August 2004, Korea has implemented the Employ Permit System(EPS) to relieve labor shortage of small and medium sized companies, protect foreign workers' rights and establish efficient employment management system. So far, there have been some positive results such as enhanced human rights protection and reduced unauthorized leaving of workplace. However overstaying foreign workers, weak post-management service and illegalities of sending countries have been persistent problems. In an attempt to address these issues and establish a lawful foreigner employ system, the Ministry Of Labor(MOL) has come up with various policies that meet international standards to protect the human rights of foreign workers.

2-5-1. Abolish the ITS, Integration into the EPS

Objective

: Integrating foreigner employment system

Action Plan

Make clear the government's will to integrate the Industrial Trainee System (ITS) into the EPS, and make announcement of the schedule of the enforcement of the integration.

In order to minimize confusion and inconvenience among employers under the ITS, improve institutions to boost convenience and efficiency of the employment procedures of the EPS.

Performance Indicator

Establishment and enforcement of detailed procedures of the integration

2-5-2. Streamline foreigner employment process & reduce necessary time for receiving workers

Objective

: Improving employment procedures for foreign workers

Action Plan

Streamline the employment process in Korea.
Boost efficiency in workforce sending procedures of sending countries.

Performance Indicator

Necessary time for receiving foreign workers

2-5-3. Improve the protection system for foreign workers under the EPS

Objective

: Protecting working conditions of foreign workers

Action Plan

Increase the number of subscribers to insurances for foreign workers (departure guarantee insurance, return cost insurance, accident insurance, guarantee insurance).
Protect the working conditions of foreign workers by applying labor standard act and other labor related laws.

Performance Indicator

Subscription rate of insurances for foreign workers

2-5-4. Promote legal employment practices by eradicating illegal employment practices

Objective

: Establishing legal employment practice

Action Plan

In order to eradicate illegal employment, establish lawful employment system through the EPS.
Through a consistent government policy (the Policy to Eradicate Illegal Employment of the MOJ) and strict law enforcement, prevent foreign workers from overstaying and lead them to leave Korea voluntarily.

Performance Indicator

Number of overstaying foreign workers and illegal immigrants

2-5-5. Improve support service for foreign workers

Objective

: Improving support for foreign workers

Action Plan

Enhance language support service such as interpretation, establish institutions for the support services and expand service function of the HRD Korea.

Performance Indicator

Results of foreigner supporting services

2-5-6. Enhance transparency in recruiting process

Objective

: Improving foreign workforce sending process

Action Plan

Request each sending country (through the MOU) to come up with 「Measures to Enhance Transparency in Workforce Sending Process」 and take those measures.

Provide support for increasing transparency by monitoring, assessing and advising sending countries on workforce sending process.

Make PR efforts and give a presentation on the sending process and sending fee of the EPS in sending countries.

Performance Indicator

Stipulation of the measures to increase transparency in workforce sending process in the MOUs

2-6 Domestic Refugee Protection

- Lead department: The Ministry of Justice
- Collaborating department: The Ministry of Health and Welfare, The Ministry of Labour

Overview

Recently, the Republic of Korea has experienced a rapid increase of number of refugee applications and holders of refugee and humanitarian status. However, there are currently no remedial and relief provisions for refugees, while the provisions on refugee status determination and application procedures are prescribed in the current Immigration Act. Therefore, the revision of related provisions is necessary for the improvement of refugee status determination procedures and relief measures. To this end, the Ministry of Justice is trying to take measures for domestic refugee protection, which include establishing legal grounds for providing humanitarian status holders with legal status to undertake selected employment activities under certain criteria, and setting basic provisions on the establishment of a refugee support center in the Immigration Act.

2-6-1. Humanitarian aid

Objective

: Increase humanitarian aid for refugee status applicants

Action Plan

If a refugee status applicant has special circumstances, he/she shall be granted humanitarian status and will be permitted to undertake selected employment opportunities under certain criteria so as to be able to earn a living during his/her stay in Korea.

Performance Indicator

Revisions of the Immigration Act and subordinate laws.

2-6-2. Assistance to approved refugees

Objective

: Provide practical assistance to approved refugees

Action Plan

Guarantee approved refugees equal treatment as Korean nationals as prescribed in the Basic Livelihood Guarantee Law for Korean Nationals, including the provision of subsidy for minimum living costs, medical service, and if necessary, job consultation.

Performance Indicator

Results of settlement support for approved refugees

■ Budget and Timeline

(Unit: Thousand won)

| Sector | 2006 2010(year) | | |
|---------------|-----------------|-----------|---------|
| | Approved | Estimated | Total |
| Public sector | 245,000 | - | 245,000 |
| Total | 245,000 | - | 245,000 |

Approved budget(2006-2010) :245 million won(49 million×5years)

2-7 Evaluation of correlation between health and environment

- Lead departments: Ministry of Health and Welfare, Ministry of Environment
- Collaborating department: Ministry of Labor

Overview

Developed countries are already evaluating the relation between health and environment as a part of sustainable development initiatives. The World Health Organization (WHO) is also encouraging the implementation of comprehensive health impact assessment systems, which would include the study of environmental effects on health.

Since 2000, Korea has been experiencing annual increases in national health problems caused by environmental pollution, despite seeing an overall improvement in the quality of life. In particular, health-related complaints made by residents near industrial zones have emerged as a serious issue together with occurrences of environmental diseases like atopic dermatitis and asthma in urban areas.

Therefore, we need to address rising anxiety over risk factors to national health by evaluating the relation between health and environment in a method congruent with international trends. We also need to lay the groundwork for creating effective national and local policies that guard against the threat of environmental pollution by implementing an ‘international capacity-building initiative to assess links between health and environment’ as proposed at the WSSD.

2-7-1. Reinforce basis for monitoring correlations between health and environment

Objective

: To construct a system for early detection and prevention of environmental diseases

Action Plan

Establish an exclusive committee at the governmental level and construct an implementation system on a working level, centered on the Ministry of Health and Welfare, Ministry of Environment, Ministry of Labor and Ministry of Construction and Transportation.

Establish an organization in charge of scientifically and systematically investigating and researching suspicious cases of environmental diseases.

Build a database to analyze existing data such as statistic data of the National Health Insurance Corporation and the status of pollution in air, water, and soil to identify causal relationships of environmental diseases.

Establish a surveillance system of national, public and private hospitals and government research institutions to glean accurate information on sufferers of environmental diseases as well as on causal relationships between exposure to pollution and occurrences of environmental diseases.

Participate actively in international programs such as those at the WHO and UNEP, and actively develop and promote regional cooperative programs among Asian countries including China, North Korea, and Mongolia.

Performance Indicator

Construction of an implementation system on a working level for the monitoring of links between health and environment

2-7-2. Reinforce surveys on current status of environmental diseases

Objective

: To establish a system for early prevention and management of harmful effects of environmental pollution

Action Plan

Investigate the current status of environmental health by including a study of residual organic compounds such as dioxin and PCBs and of concentrations of heavy metal in blood in the national health investigative surveillance system.

Examine harmful effects of environmental diseases by proving a causal relationship between exposure to pollution and occurrence of environmental diseases, and provide a victim support system.

Prepare measures targeting socio-economically vulnerable groups such as children and low-income earners who receive no benefits from environmental health policy and seriously polluted areas like abandoned mines.

Introduce a health impact assessment system to analyze the impact of various development projects and policy implementation on health

Performance Indicator

Results of the implementation of the study on the current status of environmental diseases

Results of the establishment of measures for vulnerable groups such as children and seriously polluted areas

2-7-3. Develop plan to minimize size of population endangered by environmental pollution

Objective

: To join the ranks of advanced countries vis-à-vis environment and health standards by reducing the size of population endangered by environmental pollution to comparable OECD levels.

Action Plan

Evaluate health risks by factor through monitoring people's exposure to environmental factors such as air pollution, indoor air pollution, drinking water, noise, and electronic rays.

Develop a strategy to reduce the size of population at risk by factor, including preparation of standard plans and items for environmental standards in various fields, and establish investment priorities.

Arrest in advance health damage from harmful chemical materials such as materials used to treat endocrine system disorders, dioxins, volatile organic compounds, and antibiotics, and develop a management plan for hazardous chemical substances to improve the level of chemical safety management to international standards.

Formulate a management plan for hazardous byproducts and substances that can be produced in the course of using and disposing of harmful chemical materials.

Performance Indicator

Number of days of restricted activities and of hospital treatment for asthma or COPD sufferers.

Survey on health impacts on residents living near abandoned mine areas as well as formulation of measures for the survey

Number of evaluation of risks posed by hazardous substances in activity areas and children's products

2-8 Respiratory Disease Including Particulate Matters Reduction

- Lead department: Ministry of Environment (MOE)
- Collaborating department: Ministry of Health & Welfare (MOHW) and Ministry of Labor (MOLAB)

Overview

Following recent reports of international organizations including the UN as well as domestic research institutes on the harmfulness of particulate matter such as respiratory diseases and entailing premature death, people's attention is turned to the issue of particulate matter. It is expected that the social damage of particulate matter in Seoul metropolitan area amounts to KRW 10 trillion. Since it is suspected that a relatively high percentage of the population exposed to particulate matter became victims of premature death, air quality improvement measures through reducing the particulate matter concentration are urgently needed. To address this problem, the government prepared a policy to reduce particulate matter through strengthening air quality environmental standards and particulate matter reduction measures for each medium such as vehicle, industrial facility, and scatter-prone dust.

2-8-1. Particulate matter reduction measures on manufactured vehicle

Objective

: Strengthening particulate matter reduction measure on manufactured vehicle

Action Plan

Strengthen the particulate matter emission standards of manufactured diesel vehicles by adjusting to EURO-4 level.

Distribute around 6,500 low-emission diesel vehicles to the Seoul metropolitan area and metropolitan cities (5 major metropolitan cities except for the Seoul metropolitan area) with strengthened emission standards by 2010. Phase in the distribution of low-emission diesel vehicles to non-metropolitan areas based on the pollutants and air pollution capacity of the relevant region.

Extend the natural gas vehicle distribution deadline for 3 years until 2010 and expand the types of natural gas vehicles to reduce particulate matter in urban areas.

Distribute a total of about 23,000 natural gas vehicles by 2010; 13,300 to the Seoul metropolitan area and 9,700 to the rest of the nation.

Develop a DPF vehicle technology of the EURO-4 level through the technology development aid project on particulate matter reduction of vehicles.

Performance Indicator

Distribution of low-emission vehicles

2-8-2. Particulate matter reduction measures for in-use vehicles

Objective

: Strengthening particulate matter reduction measure for in-use vehicles

Action Plan

Require the installation of exhaust emission reduction system on heavy vehicles over 3 years old and small and medium sized vehicles over 6 years old among in-use diesel vehicles, or convert vehicle engine to low-emission engine.

Conduct a campaign to install DPF on diesel vehicles over 3-6 years old and to convert to low-emission engine in metropolitan areas including Busan and Daegu (non-Seoul metropolitan area) that have serious air pollution problems.

Early terminate old vehicles that cannot meet the emission standards or require excessive maintenance & repair cost (208,000 vehicles) by 2014.

Extend the areas subject to a thorough vehicle examination, which are limited to air quality restriction areas currently, to large cities with a population of more than 500,000.

Change the method for exhaust emission measurement from absolute filtering to measurement by opacimeter.

Performance Indicator

Progress made in the DPF installation and the conversion to low-emission engine

2-8-3. Particulate matter reduction measures in industrial facilities

Objective

: Strengthen the management of air pollutants emitting facilities

Action Plan

Strengthen dust emission standards of air pollutant emitters including power plants and melting furnaces, and elevate dust emission standards for Special Management Areas.

Implement total dust load management system and emissions trading at the 233 type 1 industrial facilities in the Seoul metropolitan area starting July 2007.

Sign voluntary agreements on pollutant reduction with large industrial facilities in Special Management Areas.

Carry out emission charge system to induce voluntary pollutant reduction of industrial facilities.

Using smokestack TMS, monitor power generating facilities with the capacity of more than 50MW or co-generation facilities with the evaporation of more than 40 ton/hr that use liquid and solid fuel for 24

hours a day on a real time basis.

Performance Indicator

Non-compliance rate of particulate matter reduction measures in industrial facilities upon inspection

2-8-4. Scatter-prone dust management plan

Objective

: Strengthen management of industrial facilities that generate scatter-prone dust

Action Plan

Conduct continuous and intensive check-ups on scatter-prone dust emitters including construction industry and non-metal collection & manufacturing industry.

Conduct a special inspection during the dry spring season (March-May) every year.

Strengthen the management of scatter-prone dust emitters including vacant land, agricultural land, road, and sand transporting vehicle.

Performance Indicator

Non-compliance rate of scatter-prone dust reduction measures in construction sites upon inspection

2-8-5. Adjustment of atmospheric environmental standards and other measures

Objective

: Phase-by-phase adjustment of the environmental standards on particulate matter

Action Plan

Adjust particulate matter environmental standards that is connected with the special management plan for the Seoul metropolitan area (particulate matter $40 \mu\text{g}/\text{m}^3$ by 2014) while taking into account the public demand for better air quality and the economic & technological conditions.

Continuously research the characteristics of PM_{2.5} particulate matter including the risk to human body, and analyze the international discussion on PM_{2.5}.

Establish a support network on particulate matter prediction and warning system under the Seoul metropolitan city ordinance (February 1, 2005), consisted of experts of the NIER and Korea Meteorological Administration, and provide support and assess the operation of the network.

Extend the particulate matter prediction and warning system to the Seoul metropolitan area.

Performance Indicator

Progress made in the strengthening of atmospheric environmental standards (compared to the original plan)

■ Budget and Action Plan Schedule

Metropolitan air quality improvement project including particulate matter (Budget: KRW 1 trillion and 467.1 billion)

(Unit: KRW 100 million, the national treasury)

| Projects | Annual budget | | | | | |
|----------|---------------|-------|-------|-------|-------|-------|
| | Total | '06 | '07 | '08 | '09 | '10 |
| Total | 14,671 | 2,081 | 2,640 | 3,205 | 3,166 | 3,579 |

Above is the investment plan based on the mid-term financial plan.

The investment plan for non-metropolitan areas is being prepared.

2-9 Expand Public Healthcare

- Lead department: Ministry of Health and Welfare

Overview

The yearly rate of outpatient care per capita in Korea is twice the OECD average, while the number of days persons are hospitalized in critical care is 1.6 times the OECD average. This phenomenon leads to a national wasting of healthcare resources due to the excessive provision and utilization of medical services. With the fastest population ageing rate in the world, Korea faces a future spike in national expenditures on healthcare due to the growing number of the elderly and sufferers of chronic diseases. Moreover, inadequate government investment in healthcare has saddled Korea with the lowest levels among OECD countries in terms of non-market essential healthcare service provision, share of public healthcare services, number of emergency care service, blood supply, and isolated wards for infectious diseases. In December 2000, the Korean government laid the groundwork for strengthening public healthcare services and further developing the healthcare sector by legislating the Act on Public Healthcare Expansion. In addition, in 2004, it committed 4 trillion won in investment to the public healthcare sector and announced the National Comprehensive Plan for Expanding Public Healthcare Services. The public healthcare system was thereafter overhauled and expanded accordingly to allow it to become a sustainable healthcare system. Moreover, policies were formulated to maintain national medical expenditures at a reasonable level and to protect people's rights to good health.

2-9-1. Reform public healthcare system

Objective

: To improve public services by enhancing efficiency of public healthcare systems

Action Plan

Encourage public healthcare institutions to lead the national drive to enhance the efficiency of the overall healthcare system by requiring them to provide services based on medical service standards. Help establish their roles to provide underprivileged people with medical care they need.

Develop hospitals at national universities as leading public medical institutions in each major metropolitan area, foster national medical centers in local areas as regional hub hospitals, and re-tailor the role of public health centers to a prevention-centered purpose.

Coordinate roles of public hospitals through “Healthcare Policy Deliberation Committee”, establish a hierarchical linkage system among public health medical institutions and strengthen the public role in specialized hospitals.

Enhance quality of public healthcare services by securing high-quality human resources, modernizing facilities and equipment, and establishing an evaluation system for public healthcare institutions.

Performance Indicator

Share of Public Healthcare in GDP

2-9-2. Expand the role of and investment in public sector in preparation for an aged society

Objective

: To rationalize supply of hospital bed resources and strengthen special care systems

Action Plan

Rationalize bed resources by encouraging a reasonable supply of beds and separating of functional roles among medical institutions and by providing support and assistance to transform critical care beds to long-term care beds.

Enhance special care role of national hospitals, strengthen infrastructure to encourage childbirth, improve maternal and child health service to address the increasingly low birth rate, and establish collaborative system for western and oriental medical care.

Performance Indicator

Increase in number of long-term care facilities

2-9-3. Establish a prevention-oriented national disease control system

Objective

: To strengthen lifetime health management services and strategic disease control

Action Plan

Establish a comprehensive lifetime health management system encompassing regions, schools, and work places.

Strengthen the national cancer control system, enhance the control system for major chronic diseases, and institute mechanisms to ensure systematic provision of human resources in public healthcare.

Performance Indicator

Average life expectancy

2-9-4. Expand safety net for essential healthcare services

Objective

: To establish preparedness and response system for communicable diseases and to provide non-market essential public goods in healthcare

Action Plan

Ensure that public hospitals have isolation wards, essential equipment and drugs, and strengthen control and care system for infectious diseases at Korean Center for Disease Control and local autonomies.

Broaden national supply system for essential public goods/services in healthcare that are hard to come by in the market (e.g. emergency care, blood, rehabilitation services), and facilitate private investment in related fields.

Performance Indicator

Expanded supply system for essential public goods/services in healthcare (e.g. emergency care, blood, rehabilitation services)

■ Budget and Action Plan Schedule

(Unit: Million won)

| Category | 2006 - 2010 | | | | | Subtotal |
|----------------|-------------|-------|-------|--------|--------|----------|
| | 2006 | 2007 | 2008 | 2009 | 2010 | |
| Public sector | 7,481 | 7,930 | 9,637 | 10,889 | 11,978 | 47,915 |
| Private sector | 572 | - | - | - | - | 572 |
| Total | 8,053 | 7,930 | 9,637 | 10,889 | 11,978 | 48,487 |

* Local government budget is included

* For the period before 2009 refer to investment plan

* For the period after 2010 refer to estimated budget

* For private sector refer to BTL budget

2-10 Establish a Conflict Management System

- Lead department:
 - Office for Government Policy Coordination
 - Presidential Commission on Sustainable Development (PCSD)

Overview

Conflict has emerged as a serious social issue in Korea, constituting a significant obstacle to its sustainable development. The establishment of a conflict management system is thus judged necessary in order to resolve these recurrent conflict problems. In this regard, the PCSD has set up a plan to establish a 'conflict management system' and submitted it to the National Agenda Meeting on February 12th 2004. As a result of that, it was decided to enact a 'conflict management law' for managing conflicts of public institutions more systematically and to establish a 'conflict management support center' aimed at supporting the law. Furthermore, relevant laws will be consolidated to prevent recurrent conflicts related to public development projects.

2-10-1. Enact a law on conflict management of public institutions

Objective

: Consolidate a systematic foundation for conflict management of public institutions

Action Plan

Push forward the enactment of a law to establish a public conflict management system for conflict prevention and resolution applicable to the whole policy process

- Before the policy decision-making: conflict impact analysis, participatory decision making methods
- After the policy decision-making: Conflict Management Meeting

The Office for Government Policy Coordination acts as a lead department and promotes its legislation at the governmental level

Main contents of the legislative bill

- Head of a public institution should make a conflict impact analysis when he/she judges that a government policy may cause serious and extensive conflicts
- Establish a consultative committee on conflict management within public institutions in order to review issues related to conflict management of a concerned office
- Use a participatory decision-making method when it is judged important to form a social agreement for a smooth public policy implementation
- Set up a conflict management support center to support conflict management researches, studies, education and training for experts as well as public institutions' conflict management
- When judged necessary for public conflict management, a conflict management meeting may be

organized within a concerned department to encourage a social agreement on specific issues.

Performance Indicator

Enactment of a conflict management law

2-10-2. Establish and operate a conflict management support center

Objective

: Support to establish a conflict management infrastructure of public institutions

Action Plan

Basis: Law # 17 ~19 on public institutions' conflict management

Type: Public legal institution (government-led)

Concerned department: the Office for Government Policy Coordination

Function

- Support public institutions' conflict prevention and resolution process
 - *Conflict impact analysis, a consultative committee on conflict management, participatory decision-making, conflict management meeting
- Make manuals for each process
- Conduct studies and researches on policy practices and law/system related to conflict management
- Develop and diffuse education programs and train experts
- Support the activities related to public sector conflict management

Workforce: Approximately 75 (annual recruitment)

Organization: 1 Office and 3 Departments (Planning and management office, Research and studies department, Education and training department, Conflict management support department)

*Push forward a plan to set up a juridical foundation through consultations with relevant departments (Planning and Budget department, etc), in relation to the enactment of a basic law (law on public institutions' conflict management)

Performance Indicator

Establishment of a conflict management support center

2-10-3. Consolidate a law on conflict prevention relating to public development projects

Objective

: Consolidate a law on conflict prevention relating to public development projects

Action Plan

Identify and take improvement measures of a legal system in order to prevent conflicts that can arise in the process of public development projects

Push forward a plan to consolidate the law related to conflict prevention of public projects (in 2005)

*Make a report on an improvement and consolidation plan reflecting the content finally agreed upon through three consultations with relevant departments, submit it to the Blue House and implement the plan in specific subject areas

Main content of the consolidation plan: Propose a plan to improve 10 laws in 5 departments

- Complement the stakeholder consultation process
 - *Reinforce public consultation in dam construction plans, public water reclamation plans, etc.
 - *Complement the selection criteria for a civil representative of a waste disposal site selection committee
- Resolve conflicts related to sea boundary and improve customary water rights
 - *Establish basic laws on sea boundary conflict prevention between local autonomous entities
 - *Harmonize permitted water rights and customary rights on flowing water and reservoir water
- Improve the system of public water reclamation (corrective measures through circumstantial modifications)
 - *Complement the post management of public water reclamation through a special law
- Ensure the effectiveness of an integrated coastal management plan
 - *Complement flexibly the criteria for the definition of a scope of coastal land and waters
 - *Introduce a designated zone into the integrated coastal management plan
 - *Make it obligatory to set up a regional coastal management plan
- Establish a linkage system between land planning and environmental planning
 - *Consider both aspects when formulating a land plan and an environmental plan
 - *Improve linkage between two plans through a prior environmental review system

Performance Indicator

Formulation of a plan to reinforce the law relating to conflict prevention

3. Sustainable Economic Development

3-1-A Eco-Labeling Sharing for Sustainable Consumption

- Lead department: Ministry of Environment (MOE)
- Collaborating department: Ministry of Commerce, Industry & Energy (MOCIE)

Overview

Since the Rule on the Operation of Eco-labelling System was introduced in Korea in 1992, eco-label certification increased continuously, and as of October 2005, 2,642 products were certified. However, the information channel on eco-product has not been established yet, and the system on recycled product is operated by two different government agencies. Still, there are not many eco-products to choose from and the eco-product distribution network is not well established. For that reason, efforts to raise public awareness of the eco-labelling system and create more demand for eco-products are needed to create revenue in the eco-product market and improve the environment.

3-1-A-1. Extend the target items for eco-label certification and establish the information system

Objective

: Integration of eco-label certification systems and the extension of the target items for certification

Action Plan

Continuously extend the items for eco-labelling that are purchased by public offices, industries, and general consumers.

Incorporate less-used eco-products and strengthen certification standards.

Establish a One-Stop service system for disseminating eco-product certification information.

Establish and operate the eco-product purchase record & management system.
After the system is soundly established and the list of items is enlarged, change the system to an e-transaction system.
Provide information on semi eco-products such as low-emission vehicle.
Consider integrating similar certification programs with eco-friendly purposes with eco-labelling certification.
Establish and implement a system for sharing roles and complementing each other with relevant systems.
Develop a label that embraces the concept of sustainability including the Social Responsibility of businesses, following the trend of standardization in the international community.

Performance Indicator

Number of items for eco-label certification

3-1-A-2. Raise public awareness of eco-labelling

Objective

: Increasing the eco-product market worth to KRW 10 trillion by 2008

Action Plan

Enhance the policy efficiency by increasing the public offices' demand for eco-products in the beginning. (Target: market worth of KRW 10 trillion by 2008)
Operate a call center for eco-product purchases.
Provide incentives and support for technology development to help small and medium sized enterprises develop eco-products and get certified for their products.
Enhance the eco-labelling PR by holding eco-product exhibitions and establishing Eco-Plaza for side events.

Performance Indicator

Public awareness of eco-labelling

3-1-A-3. Promote international cooperation

Objective

: Providing support to domestic companies for the compliance with international environmental regulation on products and for the entrance to foreign eco-product markets

Action Plan

Enhance the quality of information from abroad and expand relevant DBs to establish a One-Stop trade environment information system.
Apply advanced environmental regulation standards on products such as ROHS and WEEE to the

domestic eco-mark certification.

Enhance PR activities such as seminars for companies and education, and strengthen support for small and medium sized enterprises which are vulnerable to environmental regulations on trade.

Prepare an overseas environmental certification support system to sign mutual recognition agreements with foreign countries and export superior eco-products of Korea to a foreign market.

Strengthen international cooperation on eco-labelling such as Global Eco-village Network (GEN), Global Type III Environmental Product Declarations Network (GEDnet), and Asian Productivity Organization (APO).

Extend the signing of mutual recognition agreements with other countries, and work towards the international standardization of eco-mark certification to enhance the international credibility of the domestic eco-mark system and strengthen cooperative ties with other countries.

Performance Indicator

Number of countries that signed the agreement on mutual recognition of eco-products with Korea

■ Budget and Action Plan Schedule

(Unit: KRW 1 million)

| Classification | Mid-term plan | | | | | |
|---|---------------|------|-------|-------|-------|-------|
| | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
| Extending Information Sharing for sustainable consumption | 839 | 860 | 1,220 | 1,350 | 1,400 | 5,669 |

3-1-B Secure Consumer Safety through Safety Control on Consumer Products

- Lead department: Ministry of Commerce, Industry and Energy (MOCIE)
- Collaborating department: Ministry of Environment (MOE)

Overview

The government has established the policy on safety control of consumer products after production or prior to customs procedures in order to secure the consumer safety. It further has prohibited the distribution of consumer products that may cause harm to the consumer in terms of health, finances, or the environment.

However, the more the accidents related to consumer safety increase, the greater the necessity for more comprehensive and effective safety control system is. The Quality Management and Safety Control of Industrial Products Act was revised in December, 2005 and the safety control system is classified with safety certification, self-regulatory safety confirmation, and safety/quality labeling, in accordance with the extent of harm that the product may cause to the consumer. The government has established the subordinate statutes and safety standards to ensure effective operation and provide a safe environment to protect consumer rights.

3-1-B-1. Build advanced safety control system

Objective

: Develop the safety control system

Action Plan

- Revise the Quality Management and Safety Control of Industrial Product Acts extensively.
- Revise and establish the safety criteria for consumer products subject to safety control.

Performance Indicator

Detection rates of illegally distributed products

3-1-B-2. Intensify safety control on products in circulation

Objective

: Prevent safety accidents

Action Plan

Conduct extensive market surveillance relating to the safety of products in circulation.

Establish the appropriate safety control systems for the manufacturers, importers, and retailers respectively.

Build the safety control system for investigation of the safety of newly-developed products and extend the product categories subject to market surveillance.

Build and operate the on-line system relating to product safety control.

Performance Indicator

The number of products in circulation subject to safety investigation under market surveillance.

■ Budget

(Unit : million won)

| | Mid-term plan | | | | | |
|-----------------------------|---------------|------|-------|-------|-------|-------|
| | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
| Build safety control system | 918 | 948 | 1,000 | 1,000 | 1,000 | 4,946 |

3-2 Expand Sustainable Consumption Campaign

- Lead department: Ministry of Environment (MOE)
- Collaborating department: Ministry of Commerce, Industry & Energy (MOCIE)

Overview

Regulation-oriented environment policies alone cannot address environmental pollution, which becomes complex and is getting worse. The use of environmentally-friendly products contributes to the reduction of environmental pollution and hazardous substances, and to resource saving. Advanced countries are switching their focus from process improvement policy to Integrated Product Policy (IPP). Consumer preference for environmentally sound products encourages the market participation of companies, which in turn contributes to creating the virtuous cycle of the consumption and production of environmentally preferable products.

3-2-1. Promote distribution and purchase of Environmentally-Friendly Products

Objective

: Implementation of a basic plan for the promotion of eco-friendly product procurement

Action Plan

Organize the "Committee on Environmentally-Friendly Product Procurement" in which both the government and private groups participate. The Committee plays important roles in reviewing procurement plans and analyzing the results of purchasing environmentally sound products on an yearly basis.

Formulate and implement a basic framework for promoting eco-friendly products in accordance with the Act on Environmentally-Friendly Product Procurement which contains the objectives of distributing environmentally preferable products and its implementation policy.

Performance Indicator

(Integrated into indices of other detailed items)

3-2-2. Strengthen the basis for public procurement of Environmentally Sound Products

Objective

: Programs for mandatory purchase obligations of environmentally-friendly products & promotion of green procurement

Action Plan

Apply the mandatory purchase requirement to more public organizations; reflect their purchase plans and performance in the assessment of each organization; and make public the purchase results.

Establish the system for supporting public procurement which frequently checks whether the mandatory purchase has been made, and analyzes its effect on market creation and environmental improvement.

Hold an annual event for environmentally-friendly product procurement and provide publicity activities and education on environmentally sound products centering on public organizations.

Develop a draft ordinance for green purchase which recommends local governments to enact similar laws, thereby building an institutional basis for promoting green purchase of public agencies.

Contract documents or modalities contain provisions on environmentally sound product purchase.

Performance Indicator

Purchase rate and the price of environmentally sound products which are used in each public agency

Number of ordinances on green purchase enacted by local governments

3-2-3. Support for the distribution of Environmentally-Friendly Products

Objective

: Establishment of a testing/analysis system & fostering expert personnels and business groups

Action Plan

Expand support for the development of environmentally sound products; and conduct education programs for environmentally-friendly products which are linked to the project for educating/training personnels involved in environmental technology and the eco-design programs.

Increase designated agencies for testing and analysis of each eco-friendly product. Such testing and analysis is now performed on some items (e.g., oil, toner cartridges, etc.).

Expand loan support for distribution stores mainly dealing with recycled products to those carrying environmentally sound products.

Foster special distribution stores to promote low-cost, multiple items which are not included in public procurement.

Foster expert personnel and business groups which are involved in the distribution of eco-friendly products.

Performance Indicator

Size of markets for environmentally-friendly products (e.g., sales revenues).

3-2-4. Promote “Green Consumption” in private sector

Objective

: Establish a cooperative partnership for green purchase with the industrial community and civic groups and publicity and education on green purchase

Action Plan

Conclude voluntary agreements with businesses and civic groups to stimulate the purchase of environmentally-friendly products (contracting parties to be 200 in total by 2010).

Actively develop partnership projects where businesses can participate in the activities of civic groups such as a green purchase network.

Activate the Green Building Certification System; and expand the networks for the provision of and information on construction materials.

Develop and implement policies for expanding the green procurement to services (e.g., cleaning, printing, and building) purchased by public agencies.

Promote benefits from green products through mass media and/or on the Internet.

Conduct a green purchase campaign and hold annually an exhibition of eco-friendly products, in cooperation with civic and environmental groups.

Conduct education for consumers on the necessity of green purchase and on how to buy and use eco-friendly products.

Establish and operate an Internet portal site related to green purchase.

Performance Indicator

Number of companies participating in the voluntary agreement on green purchase

■ Budget and Action Plan Schedule

(Unit: KRW million)

| Classification | Mid-Term Plans | | | | | |
|--------------------------------------|----------------|-------|-------|-------|-------|-------|
| | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
| Expansion of Sustainable Consumption | 1,426 | 1,298 | 1,400 | 1,800 | 2,000 | 7,924 |

3-3 Establish a System for Sustainable Production

- Lead department: Ministry of Commerce, Industry and Energy
- Collaborating department: Ministry of the Environment

Overview

Since the adoption of Agenda 21 in the Rio Earth Summit in 1992, Korea has joined international efforts to introduce a cleaner production approach in its industries by establishing the Act on "Promoting Transition to Environmentally-friendly Industrial Structure" in 1995. The government sets up and implements new comprehensive policies every five years and companies have taken measures to promote cleaner production and eco-friendly management. However, there is still a lack of budget, infrastructure, and professional workforce necessary to upgrade the system to meet international levels and to expand eco-friendly sustainable development.

3-3-1. Establish a basic framework

Objective

: Establish a 10-year basic framework

Action Plan

- Establish a 10-year basic framework to encourage sustainable production and green growth.
- Set up specific strategies to encourage sustainable production in all industries.
- Create specific programs to enhance eco-efficiency and encourage voluntary participation from the corporate sector.
- Set up mid- to long-term execution plans that meet international environmental standards in advance.

Performance Indicator

Establishment of a 10-year basic framework

3-3-2. Implement IPP

Objective

: Encourage design and production of eco-friendly products

Action Plan

- Establish joint framework on the industrial level to meet international environmental regulations.
- Develop and promote design of eco-friendly products that meet requirements of EuP execution plans.
- Create an organization within KNCPC to deal with IPP (Integrated Product Policies).
- Establish local 'ECD (Environmentally Conscious Design) centers' to support SMEs and offer training programs.
- Establish Korean version of IPP to enhance international competitiveness of Korean products.

Performance Indicator

Implementation of Korean IPP system and support for companies

3-3-3. Develop and disseminate cleaner production technology

Objective

: Secure and disseminate next-generation core clean technology

Action Plan

- Develop next-generation, core, clean technology with great environmental benefits and cost saving effects.
- Use a technology road-map jointly developed and supplemented by the industrial and academic circle.
- Expand the "technology dissemination program", which directly provides clean production process and technologies to industrial sites.
- Cooperate with business organizations in operating a "technology dissemination support center" to transfer core technologies and support technology commercialization.

Performance Indicator

Cleaner production technology workforce: the amount of cleaner production technology workforce being fostered

3-3-4. Disseminate Environmental Management Systems (EMS) to the entire industrial sector

Objective

: Support companies in establishing an environmental management system

Action Plan

- Establish a Green Partnership between large companies and SMEs by introducing the large companies' advanced environmental management systems to SMEs using the supply chain between the two sides.
- Develop and disseminate environmental management-related techniques that companies can adopt, such as the LCA (Life Cycle Assessment), Environmental Accounting (EA), and Environmental

Performance Evaluation (EPE).

Develop advanced environmental management corporations into sustainable corporations.

Establish a customized environmental management system for each industry and corporation and conduct environmental management assessment and supervision in order to encourage corporations to adopt the techniques.

Support regional projects involving companies adopting and implementing environmental management, organized by local governments.

Foster professional consulting firms providing support to SMEs in the implementation of environmental management.

Performance Indicator

Number of corporations with certified environmental management system

3-3-5. Establish Eco-Industrial Parks (EIPs)

Objective

: Construct a clean manufacturing network within the industrial park

Action Plan

Create a cleaner production network between companies within an industrial park.

Launch projects to promote coexistence between communities and industrial parks, such as a program to resolve confrontations between the two sides.

Implement pilot projects and expand successful projects to all industrial complexes.

Performance Indicator

Recycling of resources (water, waste heat, etc.) in eco-industrial parks

3-3-6. Promote the remanufacturing and recycling industries

Objective

: Construct infrastructure to foster the remanufacturing industry

Action Plan

Adopt a quality certification system to improve product reliability and support technology development and dissemination.

Designate and operate a research center on the remanufacturing industry and establish a professional research institute.

Include the remanufacturing industry in the standard industry classification code.

Foster human resources to disseminate remanufacturing technology.

Facilitate international cooperation in the remanufacturing sector.

Establish an institutional foundation to facilitate the recycling industry.

Develop and disseminate recycling technology.

Performance Indicator

Number of remanufacturing quality certifications, dissemination of technology/information

3-3-7. Construct and use a 'Global Sustainable Production Network'

Objective

: Support university programs on environmental issues and establish an international cooperation body

Action Plan

Establish plans to foster professionals in sustainable production by providing experiment equipment when an environment-related department in a university switches to a sustainable production-related department.

Establish and operate an international cooperation body.

Strengthen cooperation and exchange with international organizations and advanced countries.

Establish an international Green Network to jointly develop state-of-the-art industrial environment technology; analyze and distribute information.

Performance Indicator

Joint research project, technology and information exchange

■ Budget

(Unit : million won)

| Sector | Mid-term plan | | | | | Total |
|----------------|---------------|--------|--------|--------|--------|---------|
| | '06 | '07 | '08 | '09 | '10 | |
| Public Sector | 36000 | 41300 | 53100 | 53700 | 59800 | 243,900 |
| Private Sector | 3800 | 4100 | 5300 | 5300 | 6000 | 24,500 |
| Total | 39,800 | 45,400 | 58,400 | 59,000 | 65,800 | 268,400 |

3-4 Improve industrial competitiveness by promoting sustainability management

- Lead department: Ministry of Commerce, Industry and Energy
- Collaborating department: Ministry of Environment, Ministry of Labor

Overview

Since corporate issues related to human rights, the environment, and transparency require greater responsibility and participation from businesses, corporations are increasingly under great pressure to apply with corporate social issues. In addition, international standardization is rapidly progressing. Under this trend, discussions on sustainability management have been more active than ever in the past ten years, and sustainability management has become essential criteria of evaluating corporate performance, alongside financial soundness. Sustainability management is not only beneficial to the corporation but it also contributes to sustainable development of society as a whole and creates social value. Therefore, related government authorities should encourage corporations to establish socially- and environmentally-responsible practices. However, with Korea being late in introducing sustainability management, it lacks a foundation for executing sustainability management. Since sustainability management is a must to improve corporate competitiveness in the international arena, a system to realize sustainability management needs to be put in place. In addition, infrastructure of international standards needs to be established.

3-4-1. Raise awareness of Sustainability Management

Objective

: Develop model, tools, and guidelines for sustainability management

Action Plan

Encourage and foster corporations to introduce a sustainability management system that is suited to local management environment..

Identify the current level of awareness on sustainability management and accordingly establish plans and strategies in order to raise awareness on sustainability management.

Establish education and support programs to enhance understanding on sustainability management and to help corporations implement sustainability management.

Introduce a labeling system on goods and services of companies with good practices and performance in sustainability management.

3-4-2. Organize a sustainability management task force in the private sector

Objective

: Organize a task force in the private sector for professional policy coordination

Action Plan

Draw up Corporate Social Responsibility (CSR) promotion strategies based on international trend research, guideline development, surveys, and SMEs support; and promote Best Practices.

Develop various support policies and incentives, such as tax incentives, certification, and awarding of companies with best practices.

Implement exchange and cooperation programs with related overseas organizations.

Support SMEs so that they can practice sustainability management.

Performance Indicator

Development of sustainability management guideline

3-4-3. Establish a committee on sustainability management comprised of both the private and public sector

Objective

: Build social consensus through discussions between representatives of various interest groups

Action Plan

Select committee members based on a fair and transparent procedure, taking into account how much each candidate represents in a particular sector, one's expertise and arm's length relations with specific interests.

Grant the committee a status to represent the nation.

As a multilateral consultative body on sustainability management policies, comprised of both the public and private sector, any agreement made in the committee shall be respected.

The committee shall be in charge of awarding systems, conducting evaluation on labeling, and hosting forums and seminars.

Performance Indicator

Establishment and performance of the committee

3-4-4. Establish legal grounds for sustainability management

Objective

: Establish regulations that provide a basis for offering incentives to improving industrial competitiveness

Action Plan

Encourage corporations to exercise sustainability management through revising existing laws (such as the industrial development act) instead of formulating new laws on corporate competitiveness.

Expand communication channels and host multilateral discussions on a regular basis.

Apply revised law on corporations and expand its application phase by phase (Phase-based approach).

Give corporations enough time to develop and share knowledge prior to the mandate of the regulations.

Performance Indicator

Legislation and revision of related laws

3-4-5. Introduce incentives

Objective

: Introduce labeling, tax incentives, Socially-Responsible Investment (SRI), low interest rates, etc.

Action Plan

Make assessments based on the sustainability management evaluation criteria, using data accumulated for at least three years, and set an expiration date on the certification label for post-certification management.

Provide legal grounds for giving tax cuts to corporations with good practices and performance in exercising sustainability management through revising related laws.

An organization in charge of sustainability management shall distribute information on overseas SRI products and performance reports to be benchmarked by Korean financial organizations.

Reflect sustainability management performance in the credit approval process so that corporations can voluntarily construct and operate a sustainability management system.

Implement pilot projects to resolve problematic issues, and form consensus with the corporations.

Give advantage to companies with best practices in sustainability management in bids for government procurement.

Reward companies with best practices to improve their corporate image and corporate value so that other companies will follow the suit.

Performance Indicator

Number of Socially Responsible Investment Funds and financial institutes

3-4-6. Prepare for standardization of sustainability management

Objective

: Develop Social Responsibility (SR) guideline that reflects the Korean business environment

Action Plan

Introduce ISO 26000, and revise laws and regulations to respond properly to the standardization.

Analyze gap with global standards and look for ways to close the gap.

Participate in developing ISO 26000 and consider the opinions of related stakeholders in Korea.

Performance Indicator

Number of participants in ISO 26000-related international conferences and number of ISO 26000 standards adoptions in Korea.

3-4-7. Encourage corporations to report their sustainability management performance

Objective

: Distribute a local guideline on sustainability reporting, specifically designed for local corporations as well as benchmarking such global standards as global Reporting Initiative (GRI)

Action Plan

Introduce B.E.S.T Sustainability Report (BSR) indices, a local set of indices for sustainability reporting, and create a user-friendly report form to help corporations determine the level of their reporting and to guide each step of reporting process.

Provide incentives, such as awards and tax cuts, to corporations with good practices in reporting.

Conduct education to foster report authenticators.

Performance Indicator

Number of corporations that issue sustainability management reports

3-4-8. Encourage SMEs to exercise sustainability management

Objective

: Create an environment that encourages SMEs to exercise sustainability management

Action Plan

Organize a conference group comprised of SMEs.

Develop and distribute sustainability management tools for SMEs.

Support cooperative activities between large-sized companies and SMEs.
Build an on-line database aimed to facilitate the sharing of good practices.

Performance Indicator

Results of distribution of guidelines on sustainability management tailored to the needs of SMEs (through educations, promotional activities, etc.)

3-5 Promote Environmentally Friendly Farming

- Lead department: Ministry of Agriculture and Forestry
- Collaborating department: Ministry of Environment

Overview

Since the introduction of modern agriculture, Korea has been dependant on chemical fertilizers and agro-chemicals for farming. But, as consumers are becoming more and more interested in food safety, supply of and demand for environmentally friendly agricultural products are drastically increasing. Internationally, discussions on linking agriculture with trade as well as environment are being intensified, and every country is endeavoring to promote environmentally friendly farming. In response to such trends, Korea needs to create a strategy to achieve sustainable agricultural production, respond to changing consumption patterns, and efficiently deal with import increase, following progress in liberalization. The government will promote environmentally friendly farming through various policies in regards to development and distribution of core technologies for environmentally friendly farming; improvement of direct payment system for environmentally friendly farming; establishment of basis for recycling environmentally friendly farming; establishment of the basis for improving supporting system for environmentally friendly farming materials; setting up environmentally friendly livestock farming system considering regional nutrient balance; and improvement of certification system to enhance consumer confidence on environmentally friendly agricultural products.

3-5-1. Develop and distribute core technology

Objective

: Create an Environmentally-Friendly Agriculture Research Group and provide fund for R&D

Action Plan

Set up research agencies and develop and distribute core technologies for environmentally friendly farming required in the field, with the universities capable of research on environmentally friendly farming.

Grant KRW 1 billion each year for 5 years for research promotion, and put the result of the research to practical use immediately.

Performance Indicator

Degree of progress in core technology development for environmentally friendly farming (compared with the plan for agency operation)

3-5-2. Improve Direct Payment System

Objective

: Integrate separated direct payment programs for paddy field and dry field into one and increase unit direct payment for rice field

Action Plan

Unify current direct payment programs separated for paddy field and dry field into a single program for environmentally friendly farming, and increase the unit payment provided for paddy field.

Extend the supporting period to 5 years and abolish the ceiling on support size per farmhouse (5 ha) to help establish environmentally friendly farming firmly as soon as possible, considering the income of farmers who perform environmentally friendly farming is lower than that of farmers who farm in a traditional way.

Performance Indicator

Implementation result of direct payment programs for environmentally friendly farming

3-5-3. Promote natural nutrient circulation agriculture

Objective

: Create environmentally friendly farming complexes by combining livestock farming and agronomy

Action Plan

Pursue a project to create 1000 ha environmentally friendly farming complexes to establish recycling agricultural system so that regional balance of agronomy and livestock farming will be achieved, and healthy ecosystem will be preserved. (50 complexes by 2013)

Promote early establishment of recycling environmentally friendly farming, by setting up necessary facilities in complexes such as environmentally friendly farming material production facilities and equipment, livestock manure recycling center, environmentally friendly agricultural production facilities, distribution and education facilities and tourism facilities, through linking agronomy and livestock farming.

Performance Indicator

Size of areas where environmentally friendly farming is actually conducted within environmentally friendly farming complexes

3-5-4. Improve Agricultural Materials Supporting System

Objective

: Change the supporting system which mainly provided chemical materials into another one which provides environmentally friendly farming materials

Action Plan

Promote reduction of chemical fertilizer usages by suspending financial support for chemical fertilizers from 2007 and annually increasing support for organic fertilizer.

Consider applying zero rate of an additional tax to reduce farmers' financial burden when purchasing much-needed environmentally friendly farming materials.

Provide annual financial assistance to horticulture products of farmers who use natural enemy for the purpose of pest control in green houses of more than 1,000 ha, in order to reduce the use of compound agro-chemicals.

Performance Indicator

Amount of support for organic fertilizer and the cost of pest control with natural enemy

3-5-5. Establish basis for Environmentally Friendly Livestock Farming considering regional environmental volume

Objective

: Reduce agro-chemical usage through promotion of compost and liquid fertilizer with animal manure use

Action Plan

Encourage farmers to use compost and liquid fertilizer with animal manure instead of agro-chemicals through promotion of recycling agriculture, hence resolving problems of animal manure treatment and establishing basis for environmentally friendly livestock farming considering regional environmental volume.

Promote the amendment of laws related to animal manure management and use.

Conduct projects to establish environmentally friendly barns, in order to encourage farmers to move their barns in areas clustered with farming facilities to less clustered areas. (2005 - 2008)

Performance Indicator

Amount of compost and liquid fertilizer with animal manure in use

3-5-6. Improve Certification System

Objective

: Strengthen certification system and post management of environmentally friendly agricultural products

Action Plan

Improve environmentally friendly agricultural products certification system and strengthen post management, to increase roles of producers and distributors and to prevent illegal distribution of the products.

Consider introduction of prices displayed & negotiated of wholesale market in preparation for possible

increase of distribution volume, and to this end, pursue revision of ‘the Agro-Fishery Product Price Stabilization and Marketing Act’.

Performance Indicator

Implementation results of the improvement plan of environmentally friendly agricultural products certification system

■ Budget and Action Plan Schedule

(Unit: KR in 100 million)

| | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|---|---------|---------|---------|---------|---------|---------|
| Total | 106,877 | 112,046 | 170,100 | 203,000 | 248,700 | 840,723 |
| Development of core technology | 1,000 | 1,000 | 1,000 | 1,000 | - | 4,000 |
| Direct payment for environmentally friendly farming | 11,377 | 17,546 | 24,300 | 32,700 | 30,900 | 116,823 |
| Revitalization of recycling agriculture | 45,000 | 44,000 | 70,000 | 81,000 | 122,500 | 362,500 |
| Environmentally friendly farming materials (organic fertilizer) | 42,000 | 42,000 | 63,000 | 73,500 | 80,500 | 301,000 |
| (natural enemy) | 7,500 | 7,500 | 11,800 | 14,800 | 14,800 | 56,400 |

*Included in the Comprehensive plan for agriculture and rural community that is KRW 119 trillion investment and financing plan.

3-6 Develop Environmental Technology and Industry

- Lead department: Ministry of Environment (MOE)
- Collaborating department: Ministry of Commerce, Industry & Energy (MoCIE), Ministry of Science and Technology (MoST)

Overview

Korea has faced and experienced a lot of environmental problems including the rapid increase in energy consumption and diverse pollutants, and severe air pollution, as the result of its rapid and high economic growth over the past three decades. Against this backdrop, the necessity of developing environmental technologies at home and abroad and of fostering the environment industry has been increased in line with social changes, such as the increase in the public's demand for a clean environment, and strong international environmental regulations. The Korean government has set up plans to develop Environment Technology (ET) as one of its growth engines in the 21 century, and thereby to step towards an environmental welfare state where the environment and economy can coexist through world-class environmental technology.

3-6-1. Broaden a basis for developing Environmental Technology and Industry

Objective

: Join the top five countries in terms of environmental technology by 2010

Action Plan

Proceed the "Project for Developing Next-Generation Core Environmental Technology" (from 2001 to 2010, the total investment of KRW1trillion); and provide the support for commercializing technology
Train high-skilled experts of universities and businesses who can develop the state-of-the-art technology; and expand the national technical qualification system

Develop technologies responding to WEEE and REACH

- WEEE: Directive 2002/96/EC on waste electrical and electronic equipment
- REACH: Registration, Evaluation & Authorization of Chemicals

Increase R&D investments for technological innovation; and support the environmental operation/management of businesses

Create a comprehensive database on the environmental industry; and develop the statistics system

Performance Indicator

Number of patents pending relating to environmental technologies

3-6-2. Growing demand for Environmental Industry

Objective

: Achieve KRW35 trillion in sales by 2010

Action Plan

Develop and implement stepwise policies for air/water quality improvement through the special measure for improving the air quality of the Metropolitan area; the Total Water Pollution Load Management System; and the 10 year comprehensive plan for environmental health policy

Increase the penetration rate of sewerage service in upstream dams by 75% by 2010; increase public investments in water, air and waste sectors; and meet demand for monitoring/measuring devices

Promote and increase green production and consumption through a basic plan for the promotion of green product procurement; mandatory purchase obligations for environmentally-friendly products; and the establishment of a designated agency.

Performance Indicator

Size of domestic markets for the environmental industry

3-6-3. Develop and support promising environmental Services

Objective

: Development of the environmental consulting business & expansion of support for the existing environmental service businesses

Action Plan

Conduct loan programs for environmental improvement through the revision of relevant laws, thereby fostering and promoting the environment consulting business.

Further develop the existing environmental industries including agencies for soil cleaning, recycling, and an environmental impact assessment.

Performance Indicator

Size of markets for environmental consulting firms (e.g, sales revenues)

3-6-4. Enhance overseas recognition of Korea's environmental industry

Objective

: Enhancement of recognition through exhibitions and techno-fairs

Action Plan

Hold the International Exhibition on Environmental Technologies (ENVEX) where Korea's advanced environmental technologies are promoted.

Encourage and support participation in international environmental exhibitions.

Hold techno-fairs centering on countries whose demand for the environment is rapidly growing.

Provide environmental education and training programs centering on developing countries, for example, KOICA's study visit programs and the "international environment policy training course"

Produce and distribute brochures for promoting environmental policies such as "Green Korea" and "KEPB"

■ Budget and Action Plan Schedule

<Yearly Plans on Investment in Environmental Technology Development >

(Unit : KRW billion)

| Classification | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|----------------|-------|-------|-------|-------|-------|-------|
| Public Sector | 930 | 1,036 | 1,096 | 1,180 | 1,337 | 6,318 |
| Private Sector | 344 | 350 | 400 | 450 | 500 | 2,044 |
| Total | 1,274 | 1,386 | 1,496 | 1,630 | 1,837 | 8,362 |

3-7 Promote the sustainable use of energy

- Lead department: Ministry of Commerce, Industry and Energy
- Collaborating department: Ministry of Science and Technology, Ministry of the Environment

Overview

Korea is a high energy-consuming nation. It is the world's 10th largest energy consumer, 7th largest oil consumer, and 4th largest oil importer, depending highly on import for energy supplies. Since the Kyoto Protocol came into effect in 2005, responding effectively to climate change has become a priority for nations around the world. In addition, international oil price rose from \$26.79 in 2003 to \$68.58 in May, 2006, giving rise to energy uncertainties and raising concerns over stable energy supplies. Domestically, the need for civil organizations to become more involved in energy policies is rising, and due to concerns of fossil fuel depletion, the need to diversify energy resources is increasing as well. To address such problems, the Korean government formulated policies: to secure stable supplies of energy; to establish a low energy-consuming structure; and to construct a sustainable energy use system in order to increase eco-friendly energy resources.

3-7-1. Improve the stable energy provision

Objective

: Improve ability to deal with energy crisis and increase the energy self-sufficiency rate

Action Plan

Increase the government energy reserve and expand the oil price stabilization fund to cope with temporary shortages in oil supply and price hikes caused by political and economic factors.

Increase the oil and gas self-sufficiency rate to 18% by 2013, in accordance with foreign energy development strategy to secure stable supply of energy.

Diversify the energy mix by decreasing the share of oil in the energy mix and increasing the share of natural gas and new and renewable energy to 11% by 2011.

Actively explore and develop gas hydrates, the next generation energy source, in the deep East Sea.

Performance Indicator

Energy self-sufficiency ratio

3-7-2. Conversion to a low energy-consumption economy

Objective

: Improve energy intensity from 0.359 as of 2004 to 0.294 by 2012

Action Plan

Strive to save energy throughout the country through energy plan consultation on large-scale development projects and local energy plans established by local governments.

Improve industrial energy efficiency by improving efficiency of machinery, expanding investment in energy conservation facilities, supporting voluntary process innovation, and more.

Improve energy efficiency in the transportation sector by streamlining national logistics systems, facilitating the use of public transportation, etc.

Improve energy efficiency in households, commerce, and public sectors by enhancing efficiency of air-conditioning and heating equipment as well as home appliances.

Innovate energy technology development system through strategic selection and concentration process. In cooperation with local governments and Non-Governmental Organizations (NGOs), jointly promote citizen programs, such as campaigns promoting bicycle riding and reducing standby power to 1W in Korea.

Increase the effectiveness of energy policy by nurturing market-friendly and energy-conserving industries, such as Community Energy Service (CES), Co-Generation System (CGS), and Energy Services Company (ESCO); encourage fundamentally energy-saving products by expanding the certification system.

Systematically check and manage the process of the 3-year plan for improving energy intensity.

Set and meet the goals for the energy use efficiency index, as well as energy conservation goals set by sectors and industries.

Performance Indicator

Energy intensity in comparison with national GDP, per capita energy consumption

Distribution of high-efficiency energy equipment

3-7-3. An environmentally-friendly energy supply system

Objective

: Increase the share of new and renewable energy in the energy mix to 5% by 2011

Action Plan

Strategically develop and distribute new and renewable energy through selection of and concentration on energy development such as strategic alliances, system improvement, infrastructure building for development, etc.

Promote new and renewable energy and expand the infrastructure by nurturing companies specializing in new and renewable energy and improving feed-in-tariff system.

Build new and renewable energy supply systems, participated in by local governments and citizens.

Performance Indicator

New and renewable energy distribution ratio

3-7-4. Promote socially sustainable energy policies

Objective

: Formulate energy policy supported by the public's understanding

Action Plan

Make it legally mandatory for a representative of NGOs to participate in the National Energy Committee; to facilitate participation from the public sector, designate secretaries both from the government and the private sector.

Actively discuss mid- to long-term energy policy tasks which need social consensus, such as the '2030 national energy plan'. This plan integrates basic concepts regarding energy, the appropriate share of nuclear power, and future energy mix.

Decide and execute policies on nuclear waste (including spent fuel) based on social consensus and through a democratic process.

Build a conflict management system in regards to providing energy service.

Enhance and provide equal energy service to the disadvantaged in society.

3-7-5. Upgrade the energy technology R&D system

Objective

: Streamline tasks related to energy technology development and build a technology innovation system

Action Plan

Build a technology innovation system for sustainable energy.

Draw up and promote an 'integrated TRM (Technical Road Map)' in the energy and resources sector.

Secure independent energy and resources technologies as the core growth-engines for advancing high value added industries.

Create new energy industry through converging industrial technologies.

Integrate and streamline energy technology research tasks so that a single specialized research and management organization can take care of them.

Streamline R&D projects governed by individual laws into an integrated law for the long term.

■ Budget and execution schedule

(unit : billion won)

| Classification | Mid-term plan | | | | | Total |
|----------------|---------------|---------|---------|---------|---------|----------|
| | 2006 | 2007 | 2008 | 2009 | 2010 | |
| Public sector | 3,633.5 | 4,146.0 | 4,093.5 | 4,317.5 | 4,473.0 | 20,663.5 |

* support budget in regards to power industry fund and energy special audit

3-8 Shift to Environment-Friendly Tax System

- Lead department: Ministry of Finance & Economy
- Collaborating department: Ministry of Environment, Ministry of Commerce, Industry and Energy

Overview

There is a compelling need to make a shift to market-based environmental policy instruments away from traditional “command-and-control” ones. In this regard, OECD member countries have recently been leading the way in environment-friendly tax reforms by repealing tax incentives and subsidies doing harm to the environment and introducing green taxes. Korea has also joined such efforts by raising rates of special excise tax and transportation tax applicable to oil on a gradual basis each year from July, 2001 so that the effects of external diseconomies can be properly reflected in market prices, thereby offering accurate information to economic players such as households and enterprises.

3-8-1. Adjust the relative prices of gasoline and diesel

Objective

: Adjust the relative prices of gasoline and diesel to the level of 100:85

Action Plan

Raise tax rates on a gradual basis to mitigate tax resistance and economic shock.

Grant oil subsidies on buses, taxis and trucks so that tax burdens of the transportation industry can be reduced.

Performance Indicator

Level of achievement of the relative price target

3-8-2. Adjust the relative prices of gasoline and automotive LPG

Objective

: Adjust the relative prices of gasoline and automotive LPG to the level of 100:50

Action Plan

Prevent dramatic contraction of the LPG-fueled passenger car market by adjusting special excise tax rate applicable to automotive LPG after full discussion and review of the issue

Performance Indicator

Reflected in the 3-8-1 performance indicator above

3-8-3. Re-adjust the scope of taxable objects for special excise tax

Objective

: Alleviate the distortionary effects of the special excise tax on the industry and nurture high-value added industry

Action Plan

Levy special excise tax in case where social costs are not fully reflected in the market price as external diseconomies have been caused

Shift the objective of special excise tax on energy away from ‘controlling the consumption of luxury goods’ to ‘resolving external diseconomies’

Performance Indicator

Whether or not relevant special excise tax laws are drafted

■ Budget and Action Plan Schedule

As this is about tax system reform, there is no need for resource financing and allocation plans.

3-9 Measures to deal with Agricultural and Fishery Trade Liberalization and for Price Stabilization

- Lead department: Ministry of Agriculture and Forestry
- Collaborating department: Ministry of Foreign Affairs and Trade, Ministry of Maritime Affairs and Fisheries

Overview

After the rice negotiations and DDA negotiations, it is inevitable for Korea to open its rice market wider. Therefore, it is expected that it would be difficult for us to secure adequate domestic production of rice for the national food security and the rice price decrease will cause instability of farmers' income. If the DDA negotiations are concluded as planned in the future, the tariffs and domestic subsidy will be reduced as a result. In such case, the products, whose international and domestic price gap is wide, such as garlic, red pepper, ginseng, sesame, dairy products including milk, and citrus are expected to be greatly affected in a negative way. Therefore, the government will try to conclude the DDA at a level that is acceptable to Korean agriculture by actively engaging in the negotiations. The government will also make an effort to secure food for Korean people and stabilize farm household income under a more open international agricultural market.

3-9-1. Agricultural and Fishery Trade Liberalization Negotiations

Objective

: Conclude DDA negotiations at a level that is acceptable to Korean farmers.

Action Plan

Strengthen negotiating capability at the government level so that we can respond to the negotiations flexibly and systematically by maintaining close cooperation with G-10 and G-33.

3-9-2. Implement Public Stockpiling System

Objective

: Secure food for Korean people for stable supply

Action Plan

Maintain the stockpile volume at 6 million seok (amount for 2 months consumption, or 17% of the total consumption, taking into account FAO's recommendations and domestic research results.

In principle, the annual purchasing volume of the public stockpile is around 3 million seok.

The buying price of rice plant is based on the average national rice price at the production district that the National Agricultural Products Quality Management System surveys every year.

Performance Indicator

Implementation of projects to establish the public stockpiling system

3-9-3. Implement the Direct Payment System for paddy-field farmers

Objective

: Minimize the damage of farmhouses stemming from market opening by stabilizing farmers' income

Action Plan

Revise laws and regulations related to compensation of rice income.

Pursue early execution of direct payment budget to facilitate supply and demand of financial resources of farmers.

<Rice Income Compensation Direct Payment Amount for 2005 Rice>

| | Total | Fixed direct payment (paid in Nov. '05) | Flexible direct payment (paid in March '06) |
|-------------------------|---|--|--|
| Unit payment | 25,546 won/rice 80kg | 9,836 won | 15,710 won |
| | 1,558,310 won/1ha | 600,000 won on average | 958,310 won |
| Total supporting amount | 1trillion and 5,04.6 billion won | 6,03.8 billion won | 9,00.8 billion won |

Performance Indicator

Paid amount of the Direct Payment for Paddy-Field Farmers

■ Budget and Action Plan Schedule

The government will try to reflect every year the estimated expense for DDA negotiations to the general budget.

The government will reflect the financial resources needed to purchase public stockpile rice to the special account for food grain management.

The government will reflect fixed direct payment for paddy-field to the special account for Agro-Fisheries and Rural Structure Improvement, and variable payment for paddy-field to the special fund for variable payment for paddy-field of which the financial resources are the money transferred from the special account for Agro-Fisheries and Rural Structure Improvement and sales revenue of imported rice for table use.

3-10 - A Enhance Assessment on the Sustainability throughout the Life Cycle of a Product

- Lead department: The Ministry of Commerce, Industry and Energy
- Collaborating department: The Ministry of Environment

Overview

A directive on the EuP, which came into effect in August 2005, and will be enforced on Aug. 11, 2007, requires: eco-design in consideration of environmental effects of a product life cycle; and environmental management of life cycle as an execution method. Life Cycle Assessment (LCA) is the most prevalent method among those which employ quantitative evaluation on environmentally friendliness. LCA involves collection of vast data, various kinds of analysis, and extensive time and cost. Therefore, there is a need to develop and distribute a simple assessment method, as well as methodology and guidelines for industries so that companies can assess and analyze sustainability on their own.

3-10-A-1. Develop and disseminate a sustainability assessment method

Objective

: Develop a sustainability assessment method for the life cycle including the phases of manufacturing, use and disposal of the product

Action Plan

- Develop a sustainability assessment method for parts and materials production processes.
- Develop a sustainability assessment method for life cycle, addressing phases of production, use and disposal of the product.
- Develop an assessment model for environmental and economic efficiency (eco-efficiency) of the product and conduct pilot application to the industries.
- Develop a sustainability assessment method for various products considering characteristics and purposes.
- Develop and disseminate a guideline for product sustainability assessment to small and medium sized enterprises (SMEs).

Performance Indicator

The number of developed assessment methods and the dissemination cases

3-10-A-2. Construct and systemize D/B related to sustainability assessment

Objective

: Construct LCI (Life Cycle Inventory) database and the sustainability-related database for assessing the sustainability of a product

Action Plan

- Build D/B to support sustainability assessment for production phase of the product.
- Build D/B to support sustainability assessment for use and final disposal of the product.
- Expand D/B of the national LCI and standardize its operation and management systems.
- Expand fields of the national LCI D/B and facilitate its application.
- For expansion of the national LCI D/B, include privately owned LCI D/B in the national LCI D/B.
- Build a material flow D/B and use it as a basis for research and policy development.

Performance Indicator

The number of D/B built and systemized

3-10-A-3. Facilitate education and training experts

Objective

: Enhance LCA training

Action Plan

- Teach the necessity for sustainability assessment and management of life cycle.
- Develop a practical educational program for sustainability assessment on life cycle through joint efforts of academia, industry and research circles.
- Conduct a demonstrative education to facilitate the use of sustainability assessment of life cycle in the industries.
- Train experts centering around universities.
- Train global experts who can actively respond to international trends.
- Foster professional consulting companies.

Performance Indicator

The number of trained experts and workforce and its increase and decrease rate

3-10-A-4. Build an international cooperative system

Objective

: Build a global cooperative system to respond to international standardization

Action Plan

Promote international cooperative programs with product sustainability assessment organizations in the advanced countries.

Promote joint R&D projects with Asian nations for preparing assessment methods and standards giving consideration to regional characteristics.

Hold international conferences on a regular basis.

Performance Indicator

The number of joint R&D projects, and technology and information exchanges

■ Budget

(Unit : million won)

| Classification | Mid-term plan | | | | | |
|----------------|---------------|-------|-------|-------|-------|--------|
| | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
| Public sector | 2,000 | 3,000 | 3,000 | 3,500 | 3,500 | 15,000 |

3-10-B Promote Life Cycle Assessment (LCA)

- Lead department: Ministry of Environment (MOE)
- Collaborating department: Ministry of commerce, Industry & Energy (MOCIE)

Overview

Preventive and integrated environmental management is essential for a mass production/consumption society, rather than the past pollution management policy for each media including air/water quality. That is because the rate of environmental emissions reduced by end-of-pipe treatment is relatively lower than that of the increase in product manufacturing, which results in a continuous increase in releases. Life cycle management is necessary for systematic environment management because of the use of resources having a negative effect on nature and the production of environmental emissions in the process of product manufacturing/use/disposal.

3-10-B-1. Establish National LCI D/B

Objective

: Further development of database on new fields including basic components/materials, construction materials, and chemicals

Action Plan

Further develop database on new fields including basic components/materials, construction materials, and chemicals

Build the systematic and comprehensive LCI D/B Clearing House System including the database developed by the private sector

Develop and distribute the methods for evaluating the results of Life Cycle Assessment (LCA) and the quality of LCI D/B

Performance Indicator

Number of the development of LCI D/B

Number of the development of guidelines for Environmental Declaration of Products (EDP) and Life Cycle Assessment (LCA)

3-10-B-2. Develop and distribute the application of Life Cycle Assessment (LCA) methods

Objective

: Support for sustainable production through distributing/spreading Life Cycle Assessment

Action Plan

- Develop the methods for Material Flow Analysis and basic data.
- Develop the methods for Life Cycle Risk Assessment (LCRA) and database.
- Develop the methodology for industry-specific eco-efficiency and indices of eco-efficiency by product/process/business.
- Expand and accelerate R&D on the application of LCA methods.

Performance Indicator

Results of the application of LCA techniques to the business community

3-10-B-3. Programs for LCA experts

Objective

: Education of LCA experts & distribution of LCA methods

Action Plan

- Establish permanent LCA education programs for supporting EDP.
- Establish LCA-related subjects in schools, and support academic research activities.
- Promote the distribution of EDP through qualification standards for EDP examiners.

Performance Indicator

Results of the education of EDP experts

3-10-B-4. Promote Environmental Declaration of Products (EDP) Certificate

Objective

: Promotion of EDP Certificate

Action Plan

- Further establish infrastructure for operating EDP Certificate
- Strengthen publicity for boosting awareness of EDP Certificate, centering on companies which need

the Certificate.

Encourage companies to apply the purchase system considering EDP Certificate to their Eco-friendly Supply Chain Management (Eco-SCM).

Performance Indicator

Number of Environmental Declaration of Products

3-10-B-5. Develop and distribute Eco-Design

Objective

: Develop and distribute the methods/cases for eco-design

Action Plan

Select companies by each product family for research, and transfer eco-design know-how to them; and encourage the production of environmentally sound products and eco-labelling.

Develop and distribute guidelines and best practices for eco-design by product family.

Develop and distribute Eco-design software which SMEs can use.

Train and educate eco-design experts and specialists in companies and academia.

Performance Indicator

Number of Korea's SMEs applying for LCA

3-10-B-6. Strengthen connection with environmental policy and action plans

Objective

: Strengthen connection with environmental policies and action plans

Action Plan

Conduct research on the methods for jointly using the result of LCA in eco-labelling, EDP Certificate and Green Building

Develop the methods for the application of LCA to set up policies for hazard management of all chemicals

Produce the best alternative from the aspects of the environment and economy by using LCA and LCRA, when policies are developed for recycling, incineration, and landfill, etc.

3-10-B-7. Promote technology exchange through international cooperation

Objective

: Strengthen technology exchange through international cooperation

Action Plan

Provide technology support programs to countries which import Korea's major components/materials.
Hold international conferences in Korea where technology exchange occurs between Korean and foreign experts.
Provide the opportunity for Korean experts to participate in international cooperation projects like the UNEP Life Cycle Initiative.

Performance Indicator

Number of international cooperation and technology/information exchange

3-11 Resource-Circulating Waste Management

- Lead department: Ministry of Environment (MOE)
- Collaborating department: Ministry of Commerce, Industry & Energy (MOCIE), Ministry of Maritime Affairs & Fisheries (MOMAF)

Overview

The amount of waste generated in Korea was temporarily reduced by 2.6% in 1998 when the country was in the financial crisis, but has been upwards since 1999 and increased by 2.8% in 2004 compared to the previous year. To achieve sustainable growth, our society needs to be swiftly transformed into a resource-circulating one, where issues are addressed altogether; covering everything from mass production/consumption/disposal to resource depletion and waste treatment. To build such resource-circulating society, an integrated waste management system is necessary to minimize waste generation in the manufacturing process and project development and to deal with such waste in an appropriate way of reuse, recycling, and disposal in accordance with a priority-based waste management cycle.

3-11-1. Policy for minimizing waste

Objective

: Development/Implementation of policies for minimizing waste in each process of production, distribution and consumption

Action Plan

Increase waste charge rates step by step which include waste treatment costs. For plastic products, such charges are levied on final products.

Develop guidelines for waste reduction by specific business; solve a bottleneck problem of industry; and strengthen the promotion of best practices.

Minimize packaging waste generation through eco-friendly packaging guidelines.

Develop policies for the proper price of PAYT bags including the improvement of the methods for calculating the charge per resident which may affect the price of PAYT bags.

Develop policies for advancing the system for municipal waste production/collection/transportation.

Formulate policies for reducing food waste production; for building facilities for safe waste treatment; and for managing the quality of fodder/compost made by waste and the sale/use of them.

Devise measures for promoting the reduction in the use of disposable goods; and implement them ahead of schedule through guidance and supervision.

Performance Indicator

Rate of generation and recycling of municipal waste

Recycling rate of general/designated industrial waste
(For 1-3 items, three detailed tasks are integrated into an index.)

3-11-2. Waste-to-Resource Policy

Objective

: Establish/Implement the Extended Producer Responsibility (EPR) system and build a resource-circulating complex

Action Plan

Revise the laws which include changes in basic expenses for reuse, standards for obligation exemption, and strong obligations of home appliance distributors/wholesalers.

Establish the "EPR Implementation/Management Information System" to provide convenience for producers who have reuse/recycling obligations.

Build an environment-friendly resource-circulating special complex as a pilot project.

Performance Indicator

Rate of generation and recycling of municipal waste

Recycling rate of general/designated industrial waste

(For 1-3 items, three detailed tasks are integrated into an index.)

3-11-3. Advanced Waste Management

Objective

: Development of infrastructure for waste management/recycling and for the production of biodegradable products

Action Plan

Increase the reuse rate of municipal waste to 53% and that of industrial waste to 80% by 2011.

Secure and increase the effectiveness of and demand for the national procurement of recycled products through the revision of relevant laws.

Establish the production system for minimizing the cost of waste collection/sorting/recycling to increase the price competition of recycled products.

Promote the production of biodegradable goods and develop relevant infrastructure.

Performance Indicator

Rate of generation and recycling of municipal waste

Recycling rate of general/designated industrial waste

(For 1-3 items, three detailed tasks are integrated into an index.)

3-11-4. Waste Safety Management

Objective

: Establish a comprehensive management system for designated/municipal hazardous waste

Action Plan

- Strengthen the generation/collection/transportation/safe treatment of designated wastes.
- Provide the designated waste release report on the types of raw materials/products, the amount of use, the production process, in connection with the Toxic Chemical Release Inventory (TRI).
- Create the resource-circulating system for designated waste.
- Develop the concept of and the comprehensive management system for municipal waste.
- Improve relevant institutions/regulations for comprehensive waste management.

Performance Indicator

- Whether or not a proper policy is formulated for managing municipal hazardous waste
- Rate of the application of an electronic management system for industrial waste

3-11-5. Respond to Global Trends in Waste Sector

Objective

: Upgrade of domestic regulations at the advanced level

Action Plan

- Actively participate in discussions on the amendment of international agreements and OECD regulations on waste management and reuse.
- Minimize hazardous waste through improving relevant domestic laws at the international level.

■ Budget and Action Plan Schedule

(Unit : KRW million)

| Classification | '06 | '07 | '08 | '09 | 10 | Total |
|--|--------|--------|--------|--------|--------|---------|
| Resource-Circulation Waste Management | 28,960 | 27,220 | 23,638 | 29,378 | 25,858 | 135,054 |

3-12 Safe Management of Hazardous Chemicals and Waste

- Lead department: Ministry of Environment (MOE)
- Collaborating department: Ministry of Commerce, Industry & Energy (MOCIE), Ministry of Health and Welfare (MOHW), Ministry of Maritime Affairs & Fisheries (MOMAF)

Overview

Korea is the 8th largest chemical producer as of 1998 (OECD 2001). As the size of chemical industry and the amount of the distribution of chemicals have been increasing, it is urgent to safely manage a wide diversity of chemicals which are produced and distributed in Korea. Chemicals are used in diverse ways in areas surrounding us and industrial sites. And they are released throughout their life cycle from the initial stage of composition to the final stage of disposal, which causes environmental pollution and threatens human health. The global community presents the safe management of chemicals as one of the three global environmental issues along with global warming and biodiversity conservation. Since the promulgation of Hazardous Chemicals Control Act in 1991, Korea has steadily carried out projects to reduce the harm to the environment and human health caused by hazardous chemicals.

3-12-1. Improve Chemicals Management

Objective

: Improve Korea's chemicals management system at the level of advanced countries including OECD and EU and establish relevant infrastructure

Action Plan

Support registration/assessment of the industrial community responding to EU REACH (Apr.'07 to be enforced); improve the laws/institutions related to chemical management to meet the REACH standard; and establish the appropriate infrastructure step by step.

Considering the current situations of Korean research/testing institutes, perform hazard assessment on aquatic biotoxins among other items in 2007 and then on bioconcentration and chronic toxicity

Establish the database on the hazard of chemicals which can be used among relevant agencies

Develop and provide the legal basis for implementing Quantitative Structure Activity Relationships (QSAR) programs; and support relevant research

Develop the world-class GLPs (Good Laboratory Practice) standards; and educate and train relevant experts

Performance Indicator

Results of increasing the items of hazard assessment as demanded by the OECD
Whether or not the database on the hazard of chemicals is established

3-12-2. Capacity Building for International Hazard Assessment & Establishment of International Cooperation System

Objective

: Active participation in the OECD Screening Information Data Set (SIDS) Program

Action Plan

Establish data on hazardous substances by using OECD SIDS materials and toxic tests.
As in the U.S., and the OECD, diversify parties in charge of hazard management, thereby dividing and sharing costs in accordance with the Polluter Pays Principle.

Performance Indicator

Number of the world-class GLPs
Participation of the industrial community in the SIDS project

3-12-3. Survey of traces of Hazardous Chemicals & Systematic Management

Objective

: Enact laws on the management of Persistent Organic Pollutants (POPs) and strength the management of trace amounts of hazardous substances

Action Plan

Develop environmental criteria for dioxin and emission standards for major chemical generators such as iron furnaces through the enactment of POP law and build a well-organized management system.
Consider the designation of PBDEs as restricted/banned chemicals in accordance with the Hazard Chemicals Control Act.

Performance Indicator

Develop POP emission standards for industrial facilities
Total dioxin release to air

3-12-4. Improve Chemicals Accident Response

Objective

: Collection of the data on chemicals accident response

Action Plan

Designate chemicals with acute toxicity and high explosiveness as "accident precaution chemicals".
To deal with chemical accidents, increase the number of detailed data on chemicals within the "chemical accident response information system"

Performance Indicator

Results of the increased number of detailed data on chemicals in the chemical accident response information system

3-12-5. Improve Waste Classification System

Objective

: Categorize detailed information on business types and processes, rather than sources of origin

Action Plan

Categorize waste into three categories: the list of waste; waste characteristics; and waste generation process by business, rather than the existing waste classification according to sources of origin.
Increase the list of waste and the items of hazardous substances at the level of advanced countries, and reflect the results in Korea's designated waste and the "Act on Transboundary Movements and Disposal of Hazardous Wastes"
Create the database on waste generation and types to effectively manage a wide variety of waste streams which have diverse sources of origin.

Performance Indicator

Number of developed methods for testing waste hazard and new hazardous substances

3-12-6. Phasing in the System for Restricted Chemicals

Objective

: Promote the system for restricted and banned chemicals

Action Plan

Promote the system for restricted and banned chemicals in which the use and distribution of hazardous chemicals are limited according to chemical risk, by revising the Hazardous Chemicals Control Act in 2004.

Review and designate 3-4 items as restricted chemicals on an annual basis, centering on 40 items and important chemicals presented by the Korea Environment Institute (KEI) in Jul. 2005.

Performance Indicator

Number of hazardous substances designated as restricted and banned chemicals

3-12-7. Survey of Generation and Distribution of Hazardous Chemicals

Objective

: Develop sophisticated methodology for grasping chemical generation and distribution and strengthen education for those concerned

Action Plan

Continue to develop quantitative and sophisticated skills, including emission factors by industry and by source of origin.

Take measures for the following tasks: education on emission calculation technology suitable for industrial characteristics; the development of diverse research methods for each industry and process; and systematic support for businesses.

Minimize administrative burdens on businesses and officials in charge of hazardous chemicals by submitting on the same date investigation tables showing the amount of chemicals emissions and distribution.

Performance Indicator

Results of the development of emission calculation technology

Results of education and support for agencies involved in research on the amount of chemicals emissions and distribution

■ Budget and Action Plan Schedule

(Unit : KRW billion)

| Classification | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|-------------------------------|------|------|------|------|------|-------|
| Hazardous Chemical Management | 58 | 116 | 56 | 61 | 66 | 357 |

3-13 Establish Hazard/Risk Information Delivery System Including Classification and Labeling Chemicals

- Lead department: Ministry of Environment (MOE), Ministry of Labor (MOL)
- Collaborating department: Ministry of Agriculture and Forestry (MOAF), Ministry of Maritime Affairs & Fisheries (MOMAF), Ministry of Commerce, Industry & Energy, National Emergency Management Agency

Overview

The types of chemicals being distributed throughout the world amount to 130,000, and more than 2,000 new chemicals are emerging annually. The lack of information on chemicals hazard and a reckless use of chemicals lead to a threat to consumers and workers' health, the environment, and ecosystems. Chemical accidents occur in the process of the production/use/disposal of chemicals. In Sept. 2002, the WSSD Johannesburg Summit recommended the world community to introduce the Globally Harmonized System of Classification and Labeling Chemicals (GHS) by 2008 and implement it as soon as possible. However, the full-scale introduction/implementation of the System may negatively affect both the economy and the industrial community. Therefore, measures are taken for improving the existing system in order to minimize the negative effect of introducing a new system and to implement it ahead of schedule.

3-13-1. GHS Analysis & Publicity

Objective

: Systematic analysis and publicity of the GHS adopted at the UN

Action Plan

Relevant government organizations including MoE, MoL, and National Emergency Management Agency join hands in establishing the GHS homepage in order to provide to the industrial community information necessary for technologically understanding and implementing GHS.

Provide manuals for hazard pictures/markings signs and safety signs/marks, conduct research on other countries' chemical classification and marking signs, and present the results of the analysis.

Performance Indicator

Extent of establishment of a joint GHS homepage of relevant organizations and the number of homepage users

Number of participants in GHS education

3-13-2. Introduce GHS to Korea

Objective

: Revise GHS-related laws & address relevant problems

Action Plan

Korea agreed on the introduction of the GHS by 2008. Therefore, each government organization should complete the revision of laws necessary for introducing the GHS by the end of 2007. The GHS rules will be applied to the existing regulations in 2007.

Conduct element analysis of 11,000 toxins being distributed in Korea; and provide detailed information on GHS.

Create and support the hazard/risk information system including the Material Safety Data Sheet (MSDS) information on hazardous and risky chemicals.

Performance Indicator

Classification and labeling of GHS-based chemicals & the revision of MSDS-related laws
Results of establishment of the database and information system

3-13-3. Support GHS implementation of the industrial community

Objective

: Secure advanced countries' experiences & continued education and publicity online/offline

Action Plan

Take measures for securing experiences of advanced countries which already introduced the GHS and for continued monitoring of GHS implementation.

Develop and provide materials for publicity and education suitable for users; and offer GHS education programs.

Performance Indicator

Online/offline GHS education and publicity
Results of distribution of experience programs

■ Budget and Action Plan Schedule

(Unit : KRW million)

| Classification | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|----------------------|------|------|------|------|------|-------|
| Establishment of GHS | 200 | 300 | 200 | 200 | 200 | 1,100 |

4. Dealing with Climate Change and Global Environmental Issues

4-1 Establish a climate change mitigation program

- Lead department: Office for Government Policy Coordination
- Collaborating department: Ministry of Environment, Ministry of Commerce, Industry and Energy

Overview

Frequent climate changes caused by global warming have been producing harmful effects on the ecosystem and human health. Climate change agreements that emerged from the environmental agreement on the regulation of greenhouse gas emissions have evolved into economic agreements as well as new technical regulations, and set more detailed and binding obligations to reduce greenhouse gas emissions through the Kyoto Protocol. Although the Republic of Korea has been fulfilling common commitments of climate change agreements as a developing country, international pressure on Korea's commitment is expected to mount as, since 2005, the international community including developing countries has started discussions on sharing commitments to reduce greenhouse gas emissions after 2013. Therefore, it is necessary to formulate a systematic and comprehensive plan to change to a type of the economic structure that produces a low level of greenhouse gas emissions so as to realize sustainable development of the national economy and prevent and minimize damages caused by climate change.

4-1-1. Build a foundation for implementing agreements

Objective

: Build a foundation for implementing climate change agreements

Action Plan

Set up a national statistical system of greenhouse gas including statistics of greenhouse gas emissions per sector according to the international standards.

Carry out research & development in technologies related to hydrogen and new and alternative energy

as well as carbon dioxide reduction and treatment in order to reduce greenhouse gas.
Conduct various education and promotion projects including the incorporation of climate change into a school curriculum and organizing industrial sessions on measures for climate change agreements.
Establish a foundation for using the Kyoto mechanism, by reducing greenhouse gas through the Clean Development Mechanism (CDM) and participating in the carbon market.

Performance Indicator

Number of analysis sectors of the potential reduction amount of greenhouse gas

4-1-2. Carry out a greenhouse gas reduction project by sector

Objective

: Carry out a greenhouse gas reduction project by sector including energy, construction and transportation

Action Plan

Conduct a comprehensive energy demand management project including the financial and taxation support for energy saving facilities, and the expansion of business sites to conclude voluntary agreements on greenhouse gas reduction.

Carry out a project to reduce greenhouse gas emissions in terms of the energy supply side, through combined heat and power generation, photovoltaic generation, a project to supply 100,000 photovoltaic generators and an increased support for investment in energy saving facilities.

Develop and implement a system to improve energy efficiency including an average energy consumption efficiency system and an energy efficiency labeling system.

Formulate an energy management policy for buildings including the management of the total energy carrying capacity of each building and the development of criteria for building a resource saving city.

Carry out a transportation and traffic energy management policy including a carrier franchise system for trucks, establishment of an electronic payment system for highway toll fees, expansion of an intelligent transport system, tax reduction for hybrid vehicles and low-pollution cars.

Drive forward a sectoral project in the areas of environment and waste including the management of atmospheric pollutants considering the reduction of greenhouse gas emissions, control of greenhouse gas emissions through the use of waste landfill gas and a food waste-resource recovery development project, and the supply of bio-fuels using biological resources such as bio-diesel as a transportation fuel.

Carry out a greenhouse gas reduction project in the agriculture and livestock industry and forestry including technology development to reduce methane emissions through the improvement of a livestock waste treatment method, and the expansion of greenhouse gas sinks through forest conservation activities such as mountain fire prevention and forest development.

Performance Indicator

Number of reported achievements in reducing greenhouse gas and the extent of reduction

4-1-3. Establish a foundation for adaptation to climate change

Objective

: Conduct a research on the impacts of climate change including disaster and health, and build a countermeasure system

Action Plan

Build both infrastructure for collecting information on climate change and an advanced system to prevent large scale natural disasters caused by climate change and minimize the loss of human life.

Carry out research and development projects related to the impact assessment on the ecosystem and health, including the systemization of research and analysis of climate change and the ecosystem through the Korean Panel on Climate Change (KPCC), and the conduction of researches on climate change impacts on public sanitation and health.

■ Estimated budget and projected timeline

(Unit :100 million won)

| | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|---------------|-------|-------|-------|-------|-------|-------|
| Public sector | 1,336 | 1,458 | 1,434 | 1,420 | 1,312 | 6,960 |

* Support from the new and renewable energy project of the special energy and resource accounting

4-2 Reinforce measures for Ozone layer protection

- Lead department: The Ministry of Commerce, Industry and Energy
- Collaborating department: The Ministry of the Environment

Overview

Since the discovery of the Antarctic ozone hole in 1985, the international community has agreed on the need for strong regulations to reduce production and consumption of CFCs and halons. Against this backdrop, the 'Montreal Protocol on Substances That Deplete the Ozone Layer' was signed on Sept. 16 in 1987, and Korea became a party of the Montreal protocol and the Vienna Convention in 1992. In 2002, the World Summit on Sustainable Development (WSSD) recommended that each country establish national strategies and implementation plans for sustainable development as a systematic device for sustainable growth. In order to tackle the issue of global ozone layer depletion, a successful implementation of the Montreal Protocol, which aims to restore the stratospheric ozone layer, and phasing out and complete elimination of substances that deplete the ozone layer were designated as implementation tasks. The objectives of the plans are to successfully reduce production and consumption of substances that deplete the ozone layer thereby protecting the stratospheric ozone layer. This will also benefit public health, reducing damage from ultraviolet rays; in turn, this will contribute to reducing social costs by decreasing the number of cataract and skin cancer patients.

4-2-1. Systematic management and reduction of ozone-depleting substances use

Objective

: Tighten the ODS quota licensing system for production, importing and exporting

Action Plan

Continue to organize ozone-depleting substances by substance and business, according to the plan to reduce domestic production and consumption; enhance the monitoring for production and import volume of certain substances.

Toughen the import qualification confirming process and exchange information with the Korea Customs Service.

Check and assess the effects of measures for managing and reducing ozone-depleting substances on a regular basis. To this end, analyze the regular observation results on the amount of ozone in the stratospheric ozone layer and UV-B in Korea, and step up public relations efforts to raise the public awareness of ozone layer protection.

Performance Indicator

The amount of ozone-depleting substances consumed

4-2-2. Active support and management for facilitating the use of alternative substances

Objective

: Enhance financing to facilitate the use of alternative substances

Action Plan

Encourage SMEs to use alternative substances by offering active and direct support such as technological training.

Seek and promote effective support projects by regularly examining demands for loans from the Rationalization Use of Special Substances Fund for companies which use ozone-depleting substances and overseas cases.

Performance Indicator

The amount of ozone-depleting substances substituted

4-2-3. Prepare domestic standards on the ozone-depleting substances destruction

Objective

: Prepare domestic destruction standard on ozone-depleting substances

Action Plan

Review the possibility of domestic applications and operation methods of technology among the destruction technology for ozone-depleting substances, stipulated by the Protocol and prepare domestic destruction standards as soon as possible.

Seek a way to safely collect and treat ozone-depleting substances in cooperation with the Ministry of the Environment, which is in charge of collection and treatment of the waste.

Performance Indicator

Establishment of a domestic standard

4-2-4. Prepare measures to reduce HCFC production and consumption volume

Objective

: Set a mid- to long-term goal to reduce and phase out HCFC production and consumption volume

Action Plan

HCFCs were included in the list of items for licensing systems for production, importing and exporting since January 1, 2005; establish a mid- to long-term goal to reduce domestic HCFC production and consumption volumes based on discussion of the regulation schedule on the current Protocol and future regulation schedule modification.

Performance Indicator

Preparation of an annual domestic reduction schedule

■ Budget

(unit : million won)

| Classification | Mid-term plan | | | | | Total |
|----------------|---------------|-------|-------|-------|-------|--------|
| | 2006 | 2007 | 2008 | 2009 | 2010 | |
| Public sector | 6,919 | 8,409 | 7,914 | 6,917 | 4,100 | 34,259 |

4-3 Strengthen International Cooperation for Combating Desertification

- Lead department: Korea Forest Service
- Collaborating department: Ministry of Agriculture and Forestry, Ministry of Finance and Economy

Overview

Since the UNCCD (United Nations Convention to Combat Desertification) came into effect in 1996, there have been many efforts to establish and implement the National Action Plan. The desertification in China and Mongolia causes serious environmental problems in Korea and Japan with dust and sandstorms. The number of days affected by serious dust and sandstorms was typically 3.9 days (in Seoul) in the 1980s, but it has increased to 27 days in the 2000s. In order to mitigate these problems, discussions on inter-sectoral cooperation among forestry, environment, and meteorological fields are ongoing. Moreover, projects to combat desertification in China, Mongolia and Myanmar are expanded, as a measure of international cooperation. Korea used to be one of the least developed countries, but it has achieved outstanding economic growth and successful forest rehabilitation, which were attractive to many developing countries. Now many countries are calling for policy/technical benchmarking and assistance from Korea. International organizations are also asking Korea to take a key role. So as to mitigate dust and sandstorms and to uplift its national status in the international community, Korea is developing plan to strengthen partnership with other countries.

4-3-1. Establish Northeast Asia Forest Network to combat desertification

Objective

: Strengthen international cooperation and device multilateral action plan

Action Plan

Discuss measures to combat desertification, develop joint projects and researches, and encourage NGOs or research agencies to participate in forest cooperative committees with Mongolia (arrangement signed in 1998) and China (arrangement signed in 1996).

Develop multilateral actions with dust and sandstorm sources countries (China, Mongolia) and countries affected by dust and sandstorms (Korea, Japan) by establishing a Northeast Asia Forest Network to address the trans-boundary nature of dust and sandstorms.

Endeavor to develop various joint projects and workshops that provide opportunities to share related technology and experiences at the regional level.

Performance Indicator

Accomplishments of international cooperation projects in combating desertification and forest rehabilitation, etc.

4-3-2. Support projects through bilateral cooperation

Objective

: Develop bilateral cooperation projects and support NGO projects

Action Plan

Support international projects of NGOs to combat desertification.

Expand bilateral cooperative projects such as supporting project for the Mongolian Greenbelt Program and facilitate capacity building through training programs.

Promote forestry cooperation and assistance programs with tropical countries including Indonesia, Vietnam, Cambodia, etc. in order to combat desertification at a broader level.

Performance Indicator

Accomplishments of bilateral cooperation such as forestry cooperative meetings

4-3-3. Cooperation with international organizations

Objective

: Strengthen partnership and promote cooperative projects

Action Plan

Establish cooperative relations with international organizations such as UNFCCC, UNCCD, UNCBD, UNEP, etc and generate synergy by promoting international cooperative projects and sharing their results.

Introduce Korea's experience and technology for forest rehabilitation in other countries and take part in resolving global environmental issues.

Strengthen international network by dispatching experts to the secretariat and organizing international symposiums as well as endeavor to raise awareness of desertification as a global problem.

Performance Indicator

Accomplishment or number of projects with international organizations.

4-3-4. Forest rehabilitation in North Korea

Objective

: Sustainable implementation of long-term projects

Action Plan

Expand cooperative projects of private sectors by providing aids for forest rehabilitation in Imjin River watershed area, nursery development, etc. and facilitate the projects to advance into inter-governmental projects.

Sustainably promote pilot projects as long-term programs that are implemented step by step along with the political relationship.

Encourage international organizations such as UNCCD, UNEP, etc to support forest rehabilitation in North Korea.

Performance Indicator

Area of forest rehabilitation in North Korea

■ Budget and Action Plan Schedule

(Unit: 1 million won)

| Type | 2006 ~ 2010 | | Total |
|----------------|-------------|-------|--------|
| Public Sector | 3,250 | 7,800 | 11,050 |
| Private Sector | 400 | 600 | 1,000 |
| Total | 3,650 | 8,400 | 12,050 |

< Public Sector('06~'10) >

(Unit : 1 million won)

| Type | '06 | '07 | '08 | '09 | '10 |
|--|-----|-------|-------|-------|-------|
| Green Fund | 650 | 700 | 700 | 700 | 700 |
| Division Budget (Int'l Cooperation) | 700 | 1,600 | 3,700 | 3,700 | 3,700 |

4-4 Bridge Global Digital Divide with Developing Countries

- Lead department: Ministry of Information and Communication
- Collaborating department: Ministry of Foreign Affairs and Trade, Ministry of Finance and Economy

Overview

Today, with the development of information and communication technologies, global digital divide between developed and developing countries in terms of the ability to access and use information technology, the level of information infrastructure and overall national development has widened more than anytime before in the past. UN has emphasized in its Millennium Declaration the importance of developing human resources through ICT as a means to sustainable development. Also on numerous occasions, the need for regional and global cooperation in bridging global digital divide has been stressed as one of the most pressing issues of today. In this regard, the international society is demanding Korea to play an active role that corresponds to Korea's status as an IT superpower, the world's 11th economy and the exemplary informatization model country selected by UN and ITU. Korea is already performing these roles by conducting IT Training Programs, establishing Internet Access Centers, dispatching Internet Youth Volunteers and also through World Bank's project to bridge Global Digital Divide. Korea is pursuing its plan to develop a Korean international Cooperation Model for bridging digital divide. Korea will lead development into a sustainable global information society by conducting on-demand projects appropriate for each country and organization's needs, forming cooperative partnerships, reinforcing project monitoring and reforming organization system.

4-4-1. On-demand projects by country and organization

Objective

: Develop and conduct projects according to country and international organizations, then further expand the projects

Action Plan

Conduct projects considering market size and informatization level by country

- For countries with small market size and low informatization level, create foundation for advancement by Korean companies over long term by carrying out projects that reinforce IT mindset, and enhance national image. As for countries with larger market and higher informatization level, conduct projects relating to active use of information and link with supporting Korean export companies.

Create differentiated cooperative system considering status, characteristic and influencing power of international organization.

- Conduct joint human resources development projects and informatization projects with regional international organizations (such as APT, ESCAP etc.). Carry out research projects for policy development, technology support, index development and others with global international organizations (such as UN, ITU, and World Bank).

Solidify cooperation within the Asia Pacific region, and expand project scope to Latin America, Middle East and CIS nations, pursuing projects according to a region.

Establish a Comprehensive plan for bridging global digital divide by developing a Korean International Cooperation Policy Model.

Performance Indicator

Achievements in supporting informatization of developing nations

4-4-2. Establish cooperative partnership

Objective

: Reinforce partnership with international Organization, Regional Cooperative boodles, and Korean companies abroad

Action Plan

Maintain and expand partnership with international organizations

- Make cooperation projects with international organizations substantial (World Bank, UN ESCAP, The Colombo plan etc)
- Actively participate in international organizations' programs (ITU-D, WG, WSIS etc) to bridge global digital divide.

Reinforce partnership with regional cooperative bodies

- Promote project and survey demand through regional cooperative bodies such as the Arab League, ACD, SICA and ASEAN while expanding ties with APT, ATU, APEC and others.

Strengthen partnership with Korean IT related associations and private companies abroad by exchanging information and enhancing cooperation through a regular communication channel.

Performance Indicator

Number of cooperation cases with international organizations, Number of participation by Korean IT companies

4-4-3. Project monitoring and capacity building

Objective

: Establish project monitoring and evaluation system for result-oriented management and post control

Action Plan

Establish monitoring and evaluation systems by setting up an evaluation committee which assesses international cooperation project, and develops numerical indices that measure project achievements in order to raise project efficiency

Manage DB of IT training program participants from developing nations, and continuously provide information. Draw up post-management measures for information access centers and devices provided to developing countries

Enhance expertise of human resources for collaboration between companies seeking new project, by fostering a pool of regional experts and exchanging human resources for cooperative projects, and securing information exchange channel.

Performance Indicator

Number of overseas IT human resources, Number of information DB construction cases

4-4-4. Reform organization system and raise public awareness

Objective

: Review law to prevent public development disputes

Action Plan

Based on the 2nd Comprehensive Plan to Bridging Digital Divide established in December 2005, jointly by the Ministry of Information and Communication, Ministry of Education & Human Resources Development, Ministry of Health and Welfare and other collaborating departments, create synergy effects by adjusting services and creating systemic management system which takes into consideration the organization's expertise in conducting projects to bridge global digital divide.

Draw up government-wide master plan to bridge global digital divide, and prepare joint management measures.

Reinforce international PR activities through international organizations, foreign media, websites and other international communities related to bridging digital divide.

Performance Indicator

Number of international media coverages

■ Budget and Action Plan Schedule

(100 million won)

| Category | | '06 | '07 | '08 | '09 | '10 | Total |
|--|---|--------|--------|--------|--------|--------|--------|
| Foster IT Human Resources of Developing Countries | IT Expert Training Program | 23.7 | 28.7 | 22.52 | 23.19 | 23.89 | 122 |
| | International IT Policy & Technology Program for Foreigners | 33 | 33 | 35 | 35 | 20 | 156 |
| Improve Environment for Information Use in Developing Countries (Dispatch IT Volunteers, Establish IT Centers) | | 27.23 | 36.5 | 25.87 | 26.64 | 27.23 | 143.47 |
| International IT Cooperation Center | | 11.30 | 12.40 | 10.74 | 11.06 | 11.30 | 56.8 |
| IT Consulting to Developing Countries (Co-prosperity, WB Cooperation) | | 12.85 | 12.85 | 12.21 | 12.57 | 12.95 | 63.43 |
| Support UN ESCAP Center | | 5 | 5 | 5 | 5 | 5 | 25 |
| Total | | 113.08 | 128.45 | 111.34 | 113.46 | 100.37 | 566.7 |

4-5 Comprehensive ODA Improvement Plan

- Lead department: Ministry of Foreign Affairs and Trade, Ministry of Finance and Economy

Overview

At the Cabinet Member meeting on April 30 2006, it was decided to scale up Official Development Assistance (ODA) to ODA to GNI ratio of 0.1%, under the condition that the efficiency of the ODA system be increased. To this end, a comprehensive improvement plan was formulated, as a mid and long-term national strategy, led by the Office for Government Policy Coordination and in consultation with relevant departments, civil experts and civil society organizations. The plan includes a comprehensive ODA improvement plan aimed at improving the ODA system, contributing to poverty reduction in developing countries by increasing the efficiency of ODA and expanding people's participation, and enhancing national image.

4-5-1. Establish a “Korean-type ODA model”

Objective

: Develop an original ODA model focusing on sectors with comparative advantage

Action Plan

Concentrate support on sectors with Korea's comparative advantage such as Korea's own experiences of economic development, poverty alleviation, human resource development, infrastructure construction and IT sectors.

Carry out adequately combined grant technical cooperation and non-grant assistance in the short-term, and adopt the Sector-Wide Approach (SWAp) in the medium and long-term.

Allocate ODA budget by principles of selection and concentration, selecting target countries by continent according to economic, political and humanitarian needs.

Performance Indicator

Total amount of ODA and the ratio of ODA to GNI

4-5-2. Improve the ODA implementation system

Objective

: Establish an effective coordination and consultation system among relevant departments

Action Plan

- Formulate a plan on the size and sector of aid by year and target countries
- Reinforce coordination and consultation between policy agencies of grant and non-grant aid as well as relevant institutions
- Improve an evaluation and monitoring system
- Establish an overseas emergency disaster relief system

Performance Indicator

- Amount of grant and non-grant aid

4-5-3. Improve the efficiency of ODA to developing countries

Objective

- : Improve the project system and procurement management system for effective aid

Action Plan

- Select target countries according to strategic priorities and carry out field-oriented projects based on a partnership with developing countries under the demand-driven principle.
- Develop clear standards for delivering grant and non-grant aid and gradually untie grant and non-grant aid in phases.
- Develop a plan to secure resources for scaling up ODA as well as an annual and multi-year budget support plan.

4-5-4. Build the ODA infrastructure for developing countries

Objective

- : Establish a policy system harmonized with the comprehensive ODA plan

Action Plan

- Set up an ODA policy committee to respond to the changes in the international ODA trends such as the Millennium Development Goals (MDGs) and reinforce and harmonize working level consultations between the Ministry of Finance and Economy and the Ministry of Foreign Affairs and Trade.
- Increase ODA that is commensurate with Korea's economic status to improve the national status in the international community and pursue national interests.
- Build a system to systematically train experts to prepare for the ODA increase as well as the specialization and diversification of the ODA sectors.
- Transfer Korea's development experiences and technology to developing countries and acquire ODA methods and experiences of advanced countries in a cost-saving way, by conducting joint projects with developed countries and multilateral organizations.
- Reinforce the weak policy study and research capacity of departments and implementing agencies, and construct a comprehensive network of knowledge-information- human resource

Review Korea's application for membership to the OECD DAC in around 2010 with a view to adequately sharing commitments to international development cooperation and make a careful decision considering the trends in attaining ODA goals and financial situations.

Performance Indicator

Operational results of the ODA policy committee

4-5-5. Expand people's participation in ODA for developing countries

Objective

: Expand people's support for and participation in ODA

Action Plan

Reinforce a public-private partnership by building a system for the private sector participation and identifying possible areas of work that can be implemented by subcontractors.

Increase support for development NGOs and diversify support methods for their projects.

Secure the basis for people's support by raising people's trust and awareness through various projects of the private sector participation, monitoring and promotion of ODA projects.

Performance Indicator

Results of support for overseas projects of NGOs

5. Institutionalization and Education of Sustainable Development

5-1 Develop Sustainable Development Indicators and Establish an Evaluation System

- Lead department: Presidential Commission on Sustainable Development (PCSD)
- Collaborating department: National Statistical Office

Overview

Since the adoption of the 'Agenda 21' at the Rio environment conference in Brazil in June 1992, there have been steady efforts for sustainable development. Sectoral implementation plans on 6 sectors including poverty reduction, consumption and production patterns, natural resources, globalization, health and implementation measures were presented at the World Summit on Sustainable Development (WSSD) held in South Africa in September 2002. WSSD recommended to develop national implementation plans and evaluate the implementation progress through indicators. Korea has carried out a wide scope of activities since the PCSD was set up in September 2000. Since the formulation of the implementation plan of the National Strategy for Sustainable Development, Korea has been developing sustainable development indicators at the national level and establishing an evaluation system.

5-1-1. Develop a system of national sustainable development indicators

Objective

: Public consultation and development of National Sustainable Development Indicators

Action Plan

Prepare a set of indicators through a comprehensive synthesis of international indicator systems and national research results and then develop a final set of indicators through public consultation with concerned departments, experts and civil society organizations

Develop a specific operation plan of indicators by end 2006 and carry out a pilot application in 2007

Performance Indicator

The establishment of a national sustainable development indicator system

5-1-2. Establish and operate an evaluation system of national sustainable development

Objective

: Establish and operate an evaluation system of national sustainable development

Action Plan

Carry out a periodic evaluation of national sustainability according to the national sustainable development indicators and enable a longitudinal evaluation by accumulating evaluation results

Make the results of sustainability evaluation public to various stakeholders and encourage their participation in sustainable development

Achieve continuous improvement by incorporating evaluation results in future government policies

Performance Indicator

Institutionalization of an evaluation system of national sustainable development

■ Budget and implementation agenda

Drawing up of draft indicators and consultation of various opinions (May ~ June 2006)

Completion of a national sustainable development indicator system, consultation with relevant departments and public discussion (July ~ August 2006)

Definition of indicators and the establishment of an evaluation system (September ~ December 2006)

Pilot application of indicators (in 2007)

Conduct an official and periodic evaluation

5-2 Consolidate a Foundation for Sustainable Development

- Lead department: Presidential Commission on Sustainable Development (PCSD)
- Collaborating department
 - Ministry of Construction and Transportation
 - Ministry of Environment

Overview

Following the vision on national sustainable development declared in June 2005, an improvement plan was formulated to realize the vision by examining an implementation system of sustainable development. This plan comprises a consolidation of a foundation at both the national level including a legal foundation and the local level including the development of a basic plan and establishment of an implementation system. This plan is expected to build up a social and institutional foundation for efficiently and effectively promoting sustainable development at national and local levels.

5-2-1. Consolidate a legal and institutional foundation for sustainable development

Objective

: Examine the enactment of a basic sustainable development law

Action Plan

Examine the enactment of a basic law on sustainable development and the revision of a relevant law
Prepare an improvement plan of a governmental structure for sustainable development

Performance Indicator

Whether a basic law on sustainable development is enacted or not

5-2-2. Promote governance for sustainable development

Objective

: Revitalize governance for sustainable development through a public and private partnership

Action Plan

Strengthen the role of the PCSD as a governance and public deliberation institution
Carry out a cooperative plan by declaring a ‘Sustainable Development Week’

Performance Indicator

The level of satisfaction with participatory governance for sustainable development

5-2-3. Reinforce implementation capacity for local sustainable development

Objective

: Formulate a vision for local sustainable development and select & support leading local governments

Action Plan

Declare a vision for local sustainable development and sign a cooperative agreement for sustainable development
Examine local governments’ conditions for sustainable development and provide consultancy
Select leading local governments in the area of sustainable development and increase support for them

Performance Indicator

Declaration of a local governments’ vision for sustainable development as well as support activities for leading local governments

5-2-4. Establish an implementation system for local sustainable development

Objective

: Set up a local sustainable development committee and enact a basic ordinance on local sustainable development

Action Plan

Legalize the establishment of a local sustainable development committee and set up an institutional foundation
Enact a basic sustainable development ordinance in each local government
Strengthen the implementation structure of local governments
Formulate a basic plan for local sustainable development in each local government

Performance Indicator

The ratio of enactment of a basic local sustainable development ordinance

5-2-5. Evaluate local sustainable development

Objective

: Devise local sustainable development indicators and evaluate local sustainable development

Action Plan

Prepare common local sustainable development indicators and its guideline

Examine and evaluate each local government's sustainability and formulate an improvement plan

Performance Indicator

Evaluation results of sustainable development by local governments

■ Budget and implementation agenda

Draw up a tentative plan for a basic sustainable development law (2006)

Enactment of a basic sustainable development law (2007)

Formulate the standards for a local sustainable development ordinance (2007)

5-3 Action Plan for Education for Sustainable Development

- Lead department: Presidential Commission on Sustainable Development (PCSD)
- Collaborating department:
 - Ministry of Education and Human Resources Development
 - Ministry of Environment

Overview

The United Nations declared 2005 to 2014 as the UN Decade of Education for Sustainable Development (UNDESD) to promote education for sustainable development (hereinafter referred to as “ESD”). The Asia and Pacific region also organized a ‘launching ceremony of a 10-year education strategy for sustainable development’ in September 2005. In order to promote implementation at the national level, the Korean government has prepared an ‘action plan for ESD’ through public-private deliberation. This action plan comprises programs to consolidate a foundation for ESD, raise public awareness, expand sectoral education programs and establish a network.

5-3-1. Establish a foundation for education for sustainable development

Objective

: Formulate a comprehensive plan for national ESD

Action Plan

Formulate a comprehensive plan to systematically promote ESD

Extend support to education programs for sustainable development carried out by local authorities, industry and civil society organizations

Performance Indicator

Formulation of a comprehensive plan for national ESD

5-3-2. Raise public awareness of sustainable development

Objective

: Reinforce promotion and research support for sustainable development

Action Plan

Formulate and implement a promotional plan for sustainable development.

Achieve full expansion through organizing a launching ceremony of a national 10-year education strategy for sustainable development.

Increase support to sustainable development-related policy research.

Find best practices of sustainable development, disseminate them and put them into trial operation at the national level.

Performance Indicator

Level of awareness of sustainable development

5-3-3. Expand sectoral education programs and reinforce cooperation

Objective

: Expand education programs and establish a network for reinforcing sustainable development capacity

Action Plan

Expand and integrate ESD in school curriculums

Carry out education programs on sustainable development for public servants, citizens and companies

Support the creation of a training program for experts in sustainable development

Establish a sustainable development network in private, public, industrial and academic sectors

Lead ESD in North East Asia and reinforce international cooperation

Performance Indicator

A number of sectoral education programs for sustainable development as well as that of people who received education

■ Budget and Implementation Agenda

Formulation of a comprehensive plan for ESD (2007)

Organization of a launching ceremony of a 10 year education strategy for sustainable development (2007)