

GREEN KOREA 2004

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Cover Image: One of the winners of the
Environmental Drawing Contest held on the occasion of the
8th UNEP GCSS/GMEF in Jeju Island, March 2004.
<Lee Ga Eun, 2nd Grade, Kye-Song Elementary School>

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GREEN KOREA 2004

Building an Eco-Community for the 21st Century

Ministry of Environment
Republic of Korea



Welcome to Green Korea

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Minister's Message



It is my great pleasure to present to you Green Korea 2004, the annual publication by the Korean Ministry of Environment (MOE) introducing Korea's environmental policies to the global community.

Following the proclamation at the World Summit on Sustainable Development that environment, economy, and society cannot be separated but are inextricably linked, humanity has been working on implementation measures to address major issues of our day such as environmental conservation, poverty eradication, consumption and production patterns, and natural disasters. I believe global collaboration and action are moving us step by step towards the common good of sustainable development.

In March this year, Korea hosted the 8th UNEP Special Session of the Governing Council/Global Ministerial Environment Forum in Jeju Island. It gave me joy to be the host of this international gathering where participants discussed integrated water resources management, water, sanitation, poverty, and human settlements in another step forward to realizing internationally recognized goals.

Korea, in parallel with worldwide discussions on sustainable development, has been undertaking many efforts, which include: building an eco-community where all of nature's creations live in harmony, securing a resource-circulating waste management system, promoting environmental policies that provide win-win situations for the environment and economy, improving the water quality in the 4 major rivers, and supplying safe and clean drinking water.

To briefly explain our national goals in the field of environment:

First, to conserve Korea's beautiful national environment breathing with life, MOE has established a National Environmental Conservation Plan based on 'planned unit development' and introduced the Strategic Environmental Assessment System to raise the effectiveness of the Environmental Impact Assessment System. Also, the National Biological Resources Center began construction this year and a comprehensive plan was established for conserving the Demilitarized Zone and ecosystems of small islands and coastal areas.

Second, to create a pleasant living environment for the Korean people, MOE has developed the Mid- & Long-term Comprehensive Measures for Indoor Air Quality Management, as well as the Framework Plan for Metropolitan Air

Quality Control, whose contents include adjusting the fuel pricing system and introducing ultra low sulfur fuels into the market.

Furthermore, the Total Water Pollution Load Management System came into effect this year, while the Comprehensive Measures for Non-Point Source Pollution Management were established. Items under the Extended Producer Responsibility System also increased to further establish a resource-circulating recycling structure.

Third, to enhance ecology and economy together, MOE has worked on institutional preparations for building a system of sustainable consumption and production patterns by promoting corporate environmental management guidelines and the enactment of the Act on the Promotion of Environmentally-friendly Products Purchasing. Moreover, phase 2 of the Eco-Technopia 21 Project has started, under whose framework the Eco-STAR Project began in September on cutting-edge technology such as low and zero emission vehicles, and water treatment advancement.

Additionally, a special task force team has been created to lead preparations for the Fifth Ministerial Conference on the Environment and Development in Asia and the Pacific to be hosted in Seoul in March next year.

MOE gives you Green Korea 2004 in hopes that Korea's experiences and examples in environmental policy, developed through the past 40 years of rapid economic growth, will contribute to global sustainable development in mutual fulfillment of environmental conservation, economic development, and social welfare.

November 2004

A handwritten signature in black ink, reading 'Kwak Kyul-Ho'.

KWAK, Kyul-Ho Ph.D

Minister of Environment
Republic of Korea

Special Section



The 8th UNEP Special Session of the Governing Council / The 5th Global Ministerial Environment Forum

More than 1,200 participants from 158 countries gathered for the 8th UNEP Special Session of the Governing Council/Global Ministerial Environment Forum (UNEP GCSS/GMEF), held at the International Convention Center in Jeju Island, Republic of Korea, between March 29–31, 2004, to share experiences and know-how regarding water resources use and management, in relation to the cluster themes of water, sanitation, and human settlements.

At the Conference, Korea shared its experiences of addressing environmental issues that have risen in the process of achieving rapid economic growth.

This international conference was largely composed of two parallel meetings, the GMEF and the Committee of the Whole (COW). At GMEF, the Jeju Initiative was produced containing 31 action items based on the experiences and case studies from all over the world for the achievement of the implementation goals agreed at WSSD regarding integrated water resources management, water and sanitation, water and poverty, and water and human settlements.

At the working-level meeting of the Committee of the Whole, although a consensus was not reached on the issue of universal membership of the UNEP Governing Council/Global Ministerial Environment Forum, it was agreed to continue further discussions. Also, with respect to raising contributions made to UNEP, many nations welcomed the idea of an indicative scale of contributions, but made note of the fact that the indicative scale of contributions must be used on a voluntary basis.

Korea also partook in bilateral meetings with 15 nations, including nations from Africa and Central and South America, i.e. regions with which environmental cooperation has been minimal, as well as other nations to strengthen existing ties of environmental cooperation. The list of countries include Burundi, Chile, Costa Rica, Egypt, Germany, Ireland, Iran, Jordan, Kenya, New Zealand, Sudan, Sweden, Switzerland, the UK, and the USA. Among these bilateral dialogues, a Memorandum of Understanding (MOU) regarding National Parks was signed with Costa Rica, and agreements were made to draft a MOU with Burundi, Chile, and Sudan.

Also, the 5th Global Civil Society Forum, the Meeting on Capacity Building for Integrated Policy Design, and the Network Meeting of Women Ministers for the Environment were held, in addition to side events organized by the Korean Ministry of Environment and UNEP on topics including Small Islands Developing States (SIDS), Dust and Sand-storms (DSS), technology transfer, and eco-friendly technology.

At the 5th Global Civil Society Forum, discussions took place on global perspectives on water, sanitation, and human settlements, a human rights approach and assessments of implementation mechanisms. A statement of outcomes was presented at the Global Ministerial Environment Forum.

At the side event on Dust and Sandstorms (DSS), presentations were made on Northeast Asian DSS, Joint International Research on Atmospheric Brown Cloud, and Air Pollution in the Mega cities of Asia,

The Fifth Ministerial Conference on Environment & Development in Asia and the Pacific, 2005

triggering much interest and support from high-level policy-makers of the Asian region.

Korea is committed to continuously promoting the Jeju Initiative, the major outcome of the UNEP Special Session, in the international society and to maintaining active participation in global environmental discussions regarding water resources use and management.

With respect to bilateral cooperation, Korea will establish mid- to long-term plans to transfer Korea's unique experiences and know-how to developing nations. In order to strengthen environmental coop-

eration with developing countries Korea recognizes the need to identify concrete fields for cooperation and to support developing countries through projects such as the Knowledge Partnership (KP) Project, which is conducted in cooperation by the Korean Ministry of Environment and the World Bank.

Furthermore, Korea will utilize the human, material, and intellectual resources accumulated through the experience of hosting the UNEP Jeju Conference in the preparation for a successful Fifth Ministerial Conference on Environment and Development in Asia and the Pacific (MCED 2005), which will take place in Seoul, Republic of Korea, in March next year.

The Fifth Ministerial Conference on Environment & Development in Asia and the Pacific (MCED 2005) will be hosted by Korea in Seoul from 24~29 March, 2005. Korea expressed its willingness to be the host country at the 60th Session of ESCAP in Shanghai, China in April 2004, and submitted its final decision for hosting MCED 2005 in August.

The Asia-Pacific region, which accounts for 1/4 of the global landmass and more than half of the world population, has undergone unprecedented political, economic, and social developments throughout the past decades. The rapid modernization of the region gave rise to unanticipated pressures including environmental deterioration and the loss of natural resources, and such challenges have been exacerbated by the poverty experienced in many nations.

In this backdrop, the UN ESCAP MCED was established with the goal of facilitating the sustainable development of the region while responding to the environmental challenges. With a launch of the first conference in Thailand, the home ground for ESCAP headquarters, MCED has been held every 5 years since then. After the Kitakyushu Conference in Japan, this is the second time that the conference is being held outside of ESCAP headquarters.

At MCED 2005, approximately 62 environment ministers of the ESCAP member states and associate members, and representatives from international organizations and NGOs will gather to discuss the 'Implementation Plan for Sustainable Development in Asia and the Pacific' for year 2006 ~2010 and

reaffirm their commitment through the ministerial declaration.

The main theme will be "environmentally sustainable economic growth." Regional initiatives including the Seoul Initiative on the main theme and sub regional initiatives on "dust and sandstorms," "soil degradation," "education for sustainable development," etc. will be developed through the conference. The participants will also review the implementation outcomes and the follow-up measures to MCED 2000 with the united vision towards sustainable development of the region. Furthermore, side events such as a Science Symposium, Civil Society Forum, and Private Sector Forum will take place in conjunction with the conference.

Among these side events, a two-day Science Symposium will give presentations and bring lively discussion on "Global Change, Environment and Development." In particular, it is noted that the symposium will have eminent experts and scientists like Dr. Mostafa Tolba, former Executive Director of UNEP. The Civil Society Forum will discuss the role of civil society on sustainable consumption. At the Private Sector Forum, participants from industry and international organizations in Asia and the Pacific will deal with the role of business for sustainability. Other side events will address environmental issues such as environment technology, trade and environment, and environmental education.

The host venue - the City of Seoul - promises to make the conference memorable for all participants. Seoul became the national capital in 1394



Network of Women Ministers for the Environment



Preparatory Meeting for MCED 2005

during the Joseon Dynasty and has remained the hub of Korea for more than 600 years. Seoul is special in that historical sites and modern facilities of the latest technology coexist side by side.

Seoul's Jongmyo Royal Shrine - the house of worship for the kings of the Joseon Dynasty - is sure to delight visitors with its beautiful cultural assets as one of Korea's "UNESCO World Cultural Heritage Sites." Furthermore, Changdeok-gung and Chang-

gyeong-gung Palaces present visitors with the opportunity to enjoy distinctive features of Korea's traditional gardens where colorful pavilions harmonize with rich forests and ponds.

Seoul is also highly recognized as a world-class city with numerous amenities and shopping districts such as Insa-dong and Myeong-dong. Insa-dong is a tourist attraction district where alleys of galleries and folk art stores make the perfect complements to traditional restaurants and teahouses, while Myeong-dong district resembles a massive shopping city where Korea's trendsetters fill the streets with vibrant energy.

The Government of Korea already has a proven record of hosting the UNEP 8th Special Session of the Governing Council with great success. Based on the accumulated experience and the nation's passion and commitment towards regional environmental conservation, the Government of Korea will make earnest efforts to successfully host this MCED 2005.

The Environment of the Korean Peninsula





Natural and Geographical Characteristics

The Korean peninsula borders China and Russia to the north, and stretches from the northeast to the southwest across about 1,000 km. Total land area is around 222,000 km² and ROK to the south comprises 99,866 km², which is about 45% of the peninsula.

Around 66% of the land strata were formed in the Cenozoic Era and more than 70% of the bedrock is composed of granite and gneiss. Korea's topography is steep to the east and gentle to the west. The Baekdu Daegan Mountain System stretches north and south along the eastern length of the peninsula, and gives way to farmlands of eroded plains to the southwest. Such characteristics make slow-moving waterways in the west and south, and shorter fast-moving waterways in the east.

Forests cover 65.4% of the country, giving Korea a vari-

ety of vegetation and rich biodiversity. Broad-leaved deciduous forests can be found throughout the middle regions, while in the southern regions and east and west coastal regions there are broad-leaved evergreen forests. In the southernmost regions, as well as islands off the southern coast, warm temperate evergreen forests have developed.

The Korean peninsula is surrounded by the ocean on three sides with more than 3,200 islands and the coastline extends for about 17,000 km (including those of islands). The continental shelf including tideland (beaches, tidal flats, etc.) accounts for twice the size of terrestrial land at 500,000 km² (345,000 km² in ROK), of which 80% is located along the west coast.

The number of species existing in Korea is expected to be around 100,000. However, besides from vertebrate and flowering plant species, the species are not well known or documented. Those currently identified



Scenic Beach in Jeju, the Island of Peace



include 18,052 animal species, 8,271 plant species, and 3,528 species of mycota and protista, for a total of 29,852 known species.

Korea has four distinct seasons of spring, summer, autumn, and winter, with cold dry winters and hot humid summers. Average yearly precipitation is 1.3 times the world average at around 1,283mm, but due to high population density, the per capita yearly precipitation is 2,705 tons, which is 10% of the world average of 26,871 tons (2002 figures). In addition, because rainfall is primarily in the summer season, streams and rivers often become dry for most of the year making water supply sources vulnerable to heavy volume fluctuations.

Changes in Environmental Conditions and Future Challenges

With a population of 48 million, ROK's population density is among the highest in the world at 481 people per km², leading to high environmental pressures. Also, accelerated economic growth within a short span of time since the 1960s has led to the destruction of scenic sites of natural beauty and ecosystems, the rapid increase of environmental pollution, and the emergence of issues of social conflict surrounding various large-scale development projects such as dams and highways.

In particular, the explosive growth of vehicles in the Seoul Metropolitan Region, which accounts for 12% of the landmass and has a high population density of 1,858 people per km², has brought about severe deterioration of air quality.

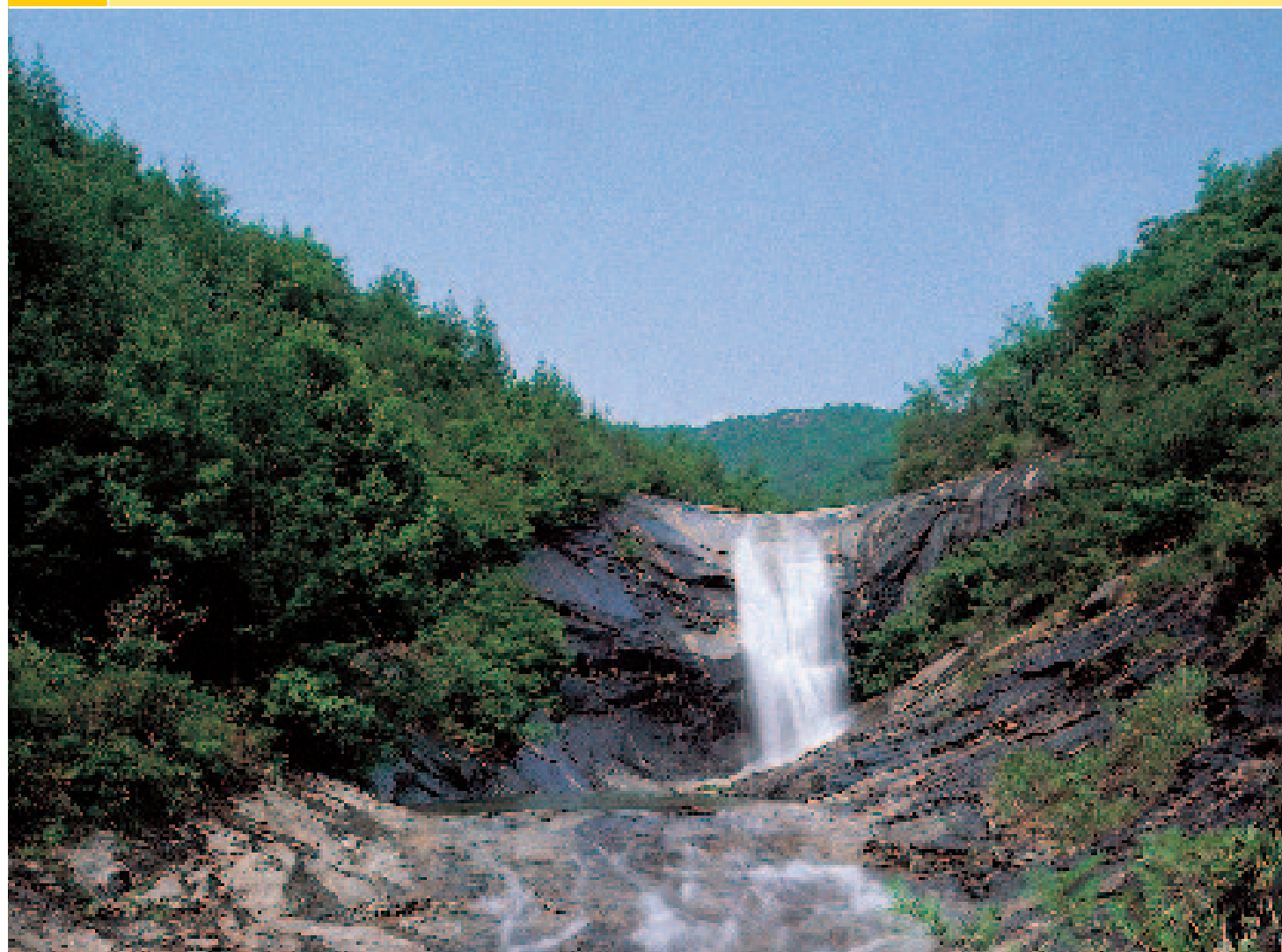
Water quality has largely improved over the years, but non-point source pollution such as run-off from agricultural fields, forests, and roads has become highlighted as a major area of concern. Waste generation has steadily increased with economic growth and rising consumption levels, and greater amounts of hazardous chemicals use is leading to various harmful side effects.

As the environmental awareness of Koreans rise, so does the demand for improvements to be made in response to emerging environmental disorders including the sick house syndrome and hyper-sensitivity to chemical substances from worsening indoor air quality in public facilities, apartments, etc.

With respect to international environmental cooperation, the need for implementation measures on major multilateral environmental agreements including the UN Framework Convention on Climate Change and the Stockholm Convention on Persistent Organic Pollutants is being highlighted as worldwide concerns deepen regarding issues such as global warming and ozone layer depletion.

In the Northeast Asian region, there is growing expectancy for increased multilateral environmental cooperation to effectively respond to major regional environmental issues including dust and sand storms (DSS) and acid deposition. Also, following the hosting of the UNEP 8th Special Session of the Governing Council/Global Ministerial Environment Forum in Jeju in March 2004, the commitment is rising to increase Korea's role in international environmental cooperation to befit the heightened position of Korea in the international community.

Overview of MOE Policies & Efforts



Nature Conservation

Korea is blessed with outstanding natural beauty, surrounded by the ocean on three sides of the peninsula and with 65.4% of its land covered by forests. It is also full of various natural habitats and abundant biodiversity. After all, Korea has long been called “geum-su-gang-san,” which refers to a beautiful land seemingly embroidered with silk mountains and rivers.

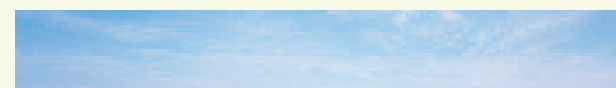
However, land use and management in the last 40 years have followed supply-oriented development policies based on economic efficiency more than sustainable conservation and management based on ecological planning. As a result, Korea established the foundation for rapid economic growth and national development within a short period of time, but not without problems of degradation in the natural environment such as the destruction of ecosystems, as well as the reduction of forests in the Baekdu Daegan Mountain System and tidal flats in many island and coastal regions.

The Ministry of Environment(MOE) recognizes the

need to systematically conserve and manage outstanding ecosystems, scenic natural sites, and biodiversity on the Korean peninsula and has adopted the overarching vision to realize a sustainable community of life where nature and society can symbiotically develop.

A key MOE initiative is to create an **eco-network** on the Korean Peninsula, conserving the notably bio-diverse ecosystems of Baekdu Daegan Mountain Sytem (BDMS), the Demilitarized Zone (DMZ), and various small islands and coastal regions. Recent efforts to this end include the **Act relating to Baekdu Daegan Mountain System Protection** enacted in December 2003, the plans to establish and follow a comprehensive conservation and management strategy for the DMZ and bordering areas, and the environmental survey conducted on 648 small islands between 1998 and 2003. (Please go to page 46 for more details.)

Korea's system of conserving natural ecosystems focuses on the protection and conservation of areas with outstanding ecosystems and high biodiversity through designations as ecosystem conservation



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