



w a t e r n a t u r e & p e o p l e

2013 Sustainability Report



Head Office and 8 Regional Offices



Overview of Company (As of 2012.12.31.)

Company Name	K-water, Korea Water Resources Corporation
Founded	November 16, 1967
Equity Capital	KRW 11.2385 trillion
Total Debt	KRW 13.7779 trillion
Total Asset	KRW 25.164 trillion
Sales	KRW 3.6684 trillion
Main Project	Management of the construction of multipurpose dams, management of multi-regional waterworks, operation & management of local waterworks and development of industrial complexes
Products & Services	Service for managing floods, supplying raw water and producing electricity, producing and supplying tap-water and constructing industrial complexes
Number of Operations	Head Office, 8 Regional Headquarters, 24 Offices and Overseas Business(21 projects in 16 countries)
Number of Executives and Employees	4,334 people
Composition of Investors	Central government 91.1% Korea Finance Corporation with 8.8% Local governments 0.1%
Investment Companies	Waterway Plus Co.,Ltd.(Ownership 100%) Korea Construction Management Co.,Ltd.(Ownership 18.9%) Chil-gok Enviro Co.,Ltd.(Ownership 49.0%) Prunjangryang Co.,Ltd.(Ownership 5.0%) KDS Hydro Pte. Ltd.(Ownership 80%), Jiangsu Shenshui Water Co., Ltd.(Ownership 32.5%) P-Waters Co.,Ltd.(Ownership 10%)
Location of Head Office	560 Sintanjin-ro, Deadeok-gu, Daejeon-si, Korea

Membership Activities

Nov. 1971 Korea National Committee on Large Dams
Jan. 1976 Korea Electric Association
Dec. 1985 Korea Energy Foundation
Mar. 1997 Korea Electric Engineers Association
May. 2001 Korea Power Exchange
Sep. 2001 Korea New & Renewable Energy Association
Jan. 2002 Korea Water and Wastewater Works Association
Mar. 2004 Korean Association of Environment Impact Assessment
Sep. 2004 Korea Business Council for Sustainable Development
Oct. 2005 Korea Engineering and Consulting Association
Jul. 2006 Business Ethics and Sustainable management for Top Performance (BEST) Forum
Feb. 2007 UN Global Compact
Feb. 2007 U-City Forum
Mar. 2007 International Water Association (IWA)
Mar. 2007 American Waterworks Association (AWWA), U-City Forum
Jan. 2012 Korea Environmental Policy and Administration Society

Awards & Accomplishments

Jan. 2009 The Grand Prize for Sustainable and Creative Management [Environmental Management] (Ministry of Knowledge Economy, UN Global Compact)
Oct. 2009 Low Carbon Green Growth Excellence Company Award (Presidential Committee on Green Growth, Ministry of Environment)
Oct. 2009 New & Renewable Energy Prime Minister Grand Prize (Ministry of Knowledge Economy)
Oct. 2009 Asian MAKE* Award ("Most Admired Knowledge Enterprise, Teleos/UK)
Oct. 2010 Asian MAKE* Award ("Most Admired Knowledge Enterprise, Teleos/UK)
Nov. 2010 National Grand Award for Green Technology (Ministry of Knowledge Economy and Ministry of Education, Science and Technology)
May. 2011 Prime Minister Commendation for Excellence in Disaster Management Assessment for Public Corporations [Ministry of Public Administration and Security]
Jun. 2011 2011 Grand Award for Green Management in Korea (Ministry of Knowledge Economy and Ministry of Education, Science and Technology)
Jun. 2011 Grand Prize for the Eco-STAR Water Distribution Network (Ministry of Environment)
Oct. 2011 The President's Commendation for Low Carbon and Green Management as the first public company (Ministry of Environment)
Oct. 2011 Asian MAKE* Award ("Most Admired Knowledge Enterprise, Teleos/UK)
Nov. 2011 2011 Award for the Best Company for Ethical Management (Ministry of Knowledge Economy)
Nov. 2011 Award for the Best 100 Companies to Work for in Korea (GWP Korea)
Nov. 2011 Certification of GMS as the first public company in Korea (Ministry of Knowledge Economy)
Nov. 2011 The President's Commendation for Supporting SMEs for the Development of New Technologies (Ministry of Knowledge Economy)
Nov. 2011 Grand Prize for a Public Institution for 2011 Korea IT Innovation (Ministry of Knowledge Economy)
Nov. 2011 Grand Prize for Cooperation of High Quality International Education for Developing Countries (WaterLinks)
Jan. 2012 Award for Smart Work Organization as the first public company (Ministry of Public Administration and Security)
Feb. 2012 Ranked at the First on the List of the Most Respected Companies in Korea (KMAC)
Jun. 2012 Grand Prize in Environment Impact Management (Ministry of Environment)
Jun. 2012 Award for Outstanding Organization for Global Social Contribution (Ministry of Health and Welfare)
Jun. 2012 Selected as company with outstanding management-labor relationship (Ministry of Employment and Labor)
Jul. 2012 2012 Grand Prize for Korea Digital Innovation Award, Public Sector (Ministry of Knowledge and Economy)
Sep. 2012 Presidential Award for outstanding small-to-medium size company in product purchasing (Office of Small-to-Medium Size Business)
Oct. 2012 Selected for 2012 Family-Friendly Company (Ministry of Women and Family)
Oct. 2012 Grand Prize, 100 Great Companies to Work In Korea (GWP Korea)
Oct. 2012 Asian MAKE* Award ("Most Admired Knowledge Enterprise, Teleos/UK)
Nov. 2012 Grand Prize in Sustainable Management Award, "Innovative Management Award" (Ministry of Knowledge and Economy)
Dec. 2012 Grand Prize in Public Company Management Award (Sisa Journal)

Publication Objective

By providing clean water resources on a stable basis, K-water is contributing to improving the welfare of the people. This substantiality report contains sustainable management value such as economic profitability, environmental soundness and social responsibility as well as the efforts made and the results obtained as consequence of sustainable management.

Report Publication

The 2013 Substantiality Report is the 9th report of this kind published. This report is published annually and includes sustainable management strategies, activities, results and future plans of K-water, which oversees economic profitability, environmental soundness and social responsibility. The most recent previous report was published in August, 2012.

Reporting Principle

This report was prepared based on GRI's Sustainability Reporting Guidelines (G3.1). More details of the GRI Index can be found within GRI Report Index (pg. 100-103)

Target Readers

This report was prepared for all stakeholder such as customers, local communities, government, cooperative firms, executives & employees and non-government organizations (NGO) that are directly or indirectly influenced by K-water's management activities.

Reporting Period

The reporting period is from January 1 to December 31, 2012. Qualitative performance up to April 2013 is partially covered in this report while quantitative performance includes 4 years worth of data from 2009 to 2012. K-water's fiscal year is from January 1 to December 31.

Scope of Report

This report covers K-water's sustainable management status and performance of its head office, 8 regional headquarters, 24 domestic work sites and overseas operations (21 projects in 16 countries). Since K-water's overseas operations are project-based and not work sites, only their business performances are reflected in this report.

Changes

During the reporting period, there were no major changes in terms of size, structure, base year or governance structure. However, there were some adjustments due to changes in calculation methods and applied criteria compared to the previous year.

Report Assurance

In order to enhance credibility of the report, Deloitte Anjin LLC provided the 3rd party opinions on selected data and statements from the report. Their opinions are presented in the page 104~105.

Additional Information

This report can also be viewed on K-water's web site (www.kwater.or.kr). For more information on K-water's sustainable management activities, please contact Management Services Innovation Team (Tel: +82-42-629-2357, Fax: +82-42-629-2399)

The Applicable Level of GRI G3.1 Guidelines

This is to disclose that K-water's Sustainable Management Report fully satisfies the requirements of 'A+' standards outlined in GRI G3.1 Guideline. An independent 3rd party assurance agency, Deloitte Anjin LLC, has verified that this report is compliant with 'A+' standards of the GRI G3.1 Guideline.



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☆ Important

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CEO Message

Dear Customers,

Since its foundation in 1967, K-water has grown to become a prominent public water management company in Korea that supplies clean and safe water for people by efficiently managing limited water resources such as managing 16 multipurpose dams include the Soyang-gang river dam and 39 waterworks, and improving people's quality of life through disaster prevention.

Frequent abnormal climate phenomena such as great floods and droughts has led many international organizations to issue warnings on possibility of great natural disasters and the UN issued a resolution called The Right to Water (2010) in which it attempted to define water as mankind's most basic and critical necessity and asset. With increasing water shortages caused by population increase and intensification of rapid urbanization in the 21st century, the cost of environmental calamities caused by global warming has reached 57 trillion KRW year in the last decade. At present, people are suffering from water shortage everywhere in the world.



In order to prepare for floods and droughts caused by rapid climate changes and to secure additional water resources, K-water has successfully completed major green growth projects of 2012 such as the Four Major Rivers Project, Gyeongin Ara Waterway Project and other major national water projects. During these green growth projects, an integrated management system that uses the world's most advanced IT technology was created and established. As a result, despite the recent 4 typhoons of unprecedented scale that struck Korea, the cost of environmental damage at national level remained minimal. Moreover, many public service facilities that were built during our projects- ecology parks, camping grounds, walking paths and athletic facilities-have become places that are loved by people today.

OECD has recently forecasted that demand for global water-related infrastructure investment will reach 1.37 trillion dollars by 2025. As the global water market expands, global water business is also expanding its scope to cover the entire water recycle system. Based on experience the company gained and accumulated from the Four Major Rivers Project, K-water is therefore making efforts to expand its overseas business. For example, the company is now participating in Thailand's 11 trillion KWR integrated water management system project and was selected as the priority partner for the 6.2 trillion KWR flood control channel and temporary water detention reservoir construction projects. Furthermore, it is making aggressive efforts to produce new engines for economic growth by implementing water-related green business projects, waterfront city development and IT-based smart water management technology.

In addition, to facilitate further growth, a company-wide effort has been made to fulfill its social responsibilities as a public company, achieve mutual growth where it shares public values with all stakeholders and, finally, transform itself to become a high-performing and "smart" company by enhancing financial soundness, while fostering creativity and performance-oriented organizational culture.

K-water's ultimate goal is to make the world a happier place by enabling all the people around the world suffering from water shortage to receive and enjoy the benefit of clean water. I ask for your continued interest and encouragement for K-water's values: "purity" that seeks honest life, "passion" that pioneers future and "creative" efforts that produce new values and challenges.

Thank you.

Aug, 2013

K-water Acting CEO Kim, Wan Kyu

김완규



K-water
endeavors to be
a creative company that leads
the global water industry so that
everyone in the world can enjoy
the benefits of clean water.





Majung-mool (Priming water) that opens your heart

마음을 여는

마중물

Majung-mool gives life to a pump and represents a caring heart
that want to quench everyone's thirst.

K-water, with a warm heart that cares for both humans and the nature,
is paving a way for the future when every can smile.



Strategy

Forecast and Outlook **08** G2G Wave Vision and Strategy **10** Business Structure and Implementation Strategies **14**

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Forecast and Outlook

K-water is a public organization responsible for integrated water management and its aim is to supply citizens with water that is safe from climate changes. In doing so, it aims to enhance national competitiveness. K-water is committed to fulfilling its role as an anchor that promotes the growth of the domestic water industry.

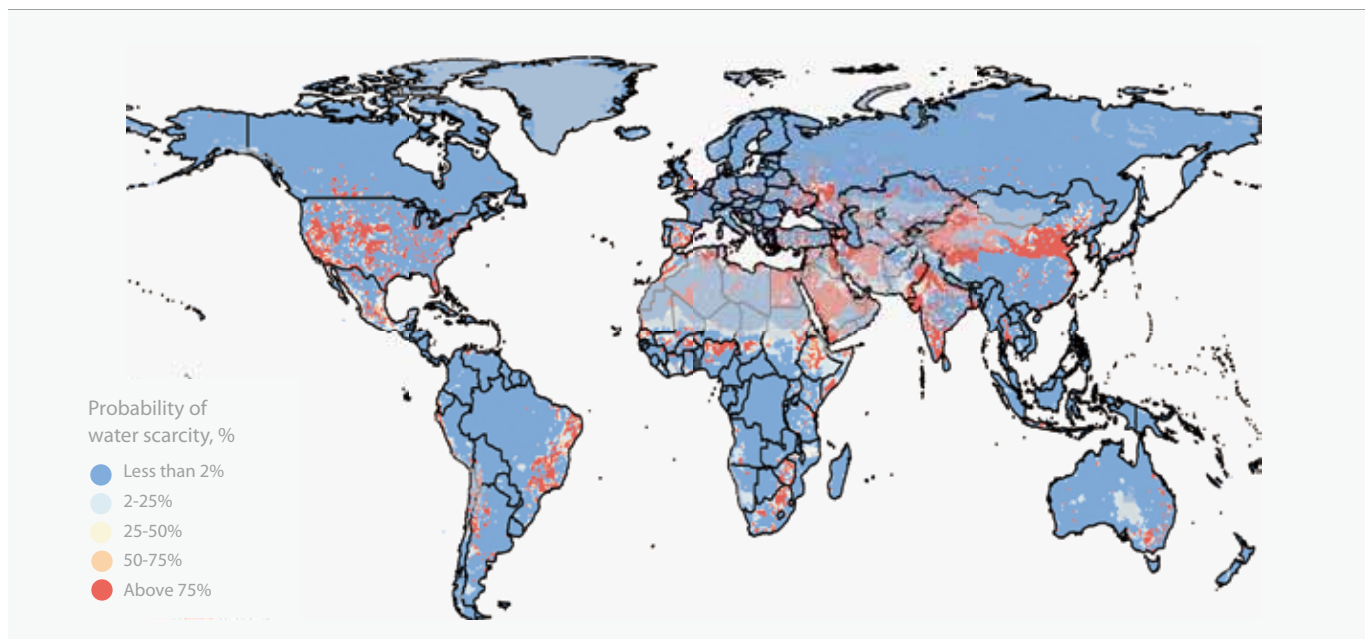
Climate Change and Water Risks

Water is a resource that is critical to our life as it is necessary for sustaining human life and a foundation for economic activities. Mankind has developed civilizations by learning how to use water while struggling with floods and famines. However, "water risks" have become an important issue around the world today. During the last century, the world's population has doubled while water usage increased by 6 times. Major world organizations predict that annual water demand will reach 6,900km³ by 2030. This is a figure that is 40% higher than the sustainable water supply at present. In addition, due to rapid urbanization, 3.5 billion people, which accounts for almost 50% of the total 7.1 billion world population, are living in cities, which allows us to predict that there will be reductions in usable water resources and of water-

related environmental damage will accelerate.

Due to recent climate changes that accompany drastic changes in water recycle process, many extreme climate phenomena, e.g., extreme floods and droughts, are occurring frequently throughout the world, producing much damage. The global damage due to abnormal climate phenomena is estimated to be 57 trillion KRW for the last decade. According to Intergovernmental Panel on Climate Change (IPCC) Report published in 2012, climate changes are increasingly causing extreme climate phenomena to occur and their intensity is increasing. As such, it is predicated that, due to population increase and expanding urbanization, extreme climate changes will have increasingly bigger global effects on human society and its social infrastructures in the future.

Water risk in 2030



Source : water-risk-index.com

The Right to Water and Water Security

On July 28, 2010, after continued discussions, the international community declared "The Right to Water" at the UN Assembly, acknowledging "the right to drink clean and healthy water as the most basic human right required to enable all other human rights to allow us to enjoy life". As a result, the UN Human Rights Committee has established the concept of the "right to water" and is pressing all countries for legislation and implementation of the water right policy. The idea of the right to the water as approved by the UN Human Rights Committee is comprised of water usability that guarantees continued and sufficient supply of water, water quality that guarantees water safety in terms of public health and hygiene, privacy in water usage, tolerance that guarantees respect for human beings, accessibility that guarantees everyone safe access to water anytime anywhere and, finally, price that anyone can afford. As the right to drink clean and healthy water and public hygiene becomes the basic right of all citizens guaranteed by the constitution, the central government is taking an increasingly pivotal role in supplying water and sewage system, which was traditionally left to the local governments throughout the world. Furthermore, as mentioned above, due to global changes in the environment including climate changes, water-related issues such as intensification in lack of water supply shortages, increasingly frequent water-related natural disasters and the resulting damage and, finally, water pollution and destruction of water ecology are becoming more and more critical, frequently generating dangerous situations. Such dangers are threatening the safety of citizens of every nation and, more broadly, all mankind. Accordingly, national security implication of stable water supply is increasingly becoming more prominent. There is a world-wide phenomenon of water shortage due to climate changes, desertification and population increase. Also, there are increasing regional conflicts that involve water-related issues. Accordingly, many countries have been making efforts to create and implement water-related policies in order to satisfy the water demand of their citizens and secure sufficient water resources to promote national economic and industrial growth. The role and responsibility of national governments on guaranteeing stable water supply are gaining critical importance with expanded scope of roles and responsibilities for the central governments play.

Rapid Growth of Global Water Market - A Big Opportunity for the Water Industry

According to Global Water Intelligence (GWI), a British water research institute, global water demand will reach 557.8 billion US dollars in 2013. Also, the Ministry of Economy and Industry in Japan estimates that global water demand will reach 865 billion US dollars by 2025.

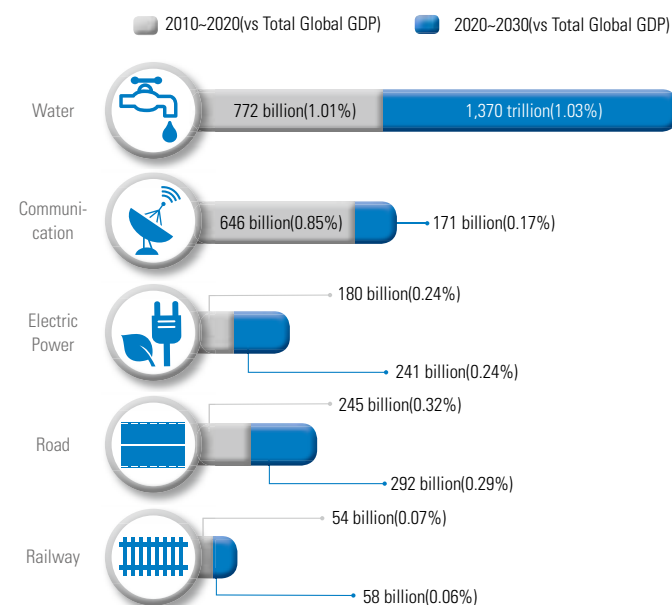
Furthermore, OECD also predicts that demand for water-related infrastructure will reach 1.370 trillion US dollars by 2025. Rapid growth in global water market is providing a big opportunity for the domestic water industry to grow.

K-water Prepares for the Future

The Korean government has made continuous efforts to improve the stability and safety of water supply and build national infrastructure that is resistant

Global Infrastructure Investment Demand Forecast

(Unit : US Dollars)



Source: OECD

to natural disasters. In particular, the recent Four Major Rivers Project, a large-scale integrated water management project, has significantly contributed to the improvement of people's quality of life by effectively adapting to climate changes such as droughts or floods and transforming waterway spaces into new culture and leisure spaces.

The rapidly growing global water market is opening a great door of opportunities for Korea. With the Water Industry Development Plan of 2006 and Water Industry Growth Conference held by the Green Growth Committee in October, 2010, the government is making concerted efforts to expand its domestic water industry know-how and apply it to overseas markets.

K-water, under an increasingly more uncertain water management environment caused by climate changes, will make its best efforts to maintain and strengthen national safety and competitiveness related to water by providing more stable water supply, better disaster prevention system and, preservation and restoration of ecological environment. In addition, as one of the premiere global water management organization in the world, it will faithfully carry out its role as an anchor for the growth of the domestic water industry using its strengths as a public company with expertise that encompasses both water resources and water-supply/sewage treatment systems. Furthermore, based on long-accumulated technology and know-how, K-water is committed to promoting the growth of both the domestic water industry and sustainable economic growth of developing countries by expanding overseas businesses in collaboration with private construction industry, developing small-to-medium size venture technology businesses and expanding low-carbon green projects.



Vision and Strategy

In 2013, K-water will emerge as the world's most comprehensive water service provider through "Green to Great" growth plan.

Revised and Enhanced Visions and Strategies

K-water, to realize visions that correspond to the founding purpose of the company, has established mid and long-term (2012-2021) strategic management plans which specifically delineate the prospect of the company in 2021. In order to actively respond to changing internal and external sentiments, K-water has established 9 implementation strategies and 30 practical tasks of Green to Great K-water. Going forward, K-water will continue to work on its vision of sustainable growth by strategically responding to key management issues based on the mid and long-term business plans while concentrating on developing core businesses as well as new engine of business growth.

Vision

K-water has established a vision of becoming "one of the world's premiere comprehensive water services provider". It is committed to faithfully undertaking its established business objectives, fulfilling its social responsibilities as a public company and developing global competitiveness.

K-water's New Management

To become a respected and renowned corporation through "green growth", K-water strives to become the best in the world in the following five areas.

Guard A world-class company with ZERO accidents

Renovation An innovation leader based on change

Environment An eco-friendly company that creates green values

Ability A company that cultivates global talents

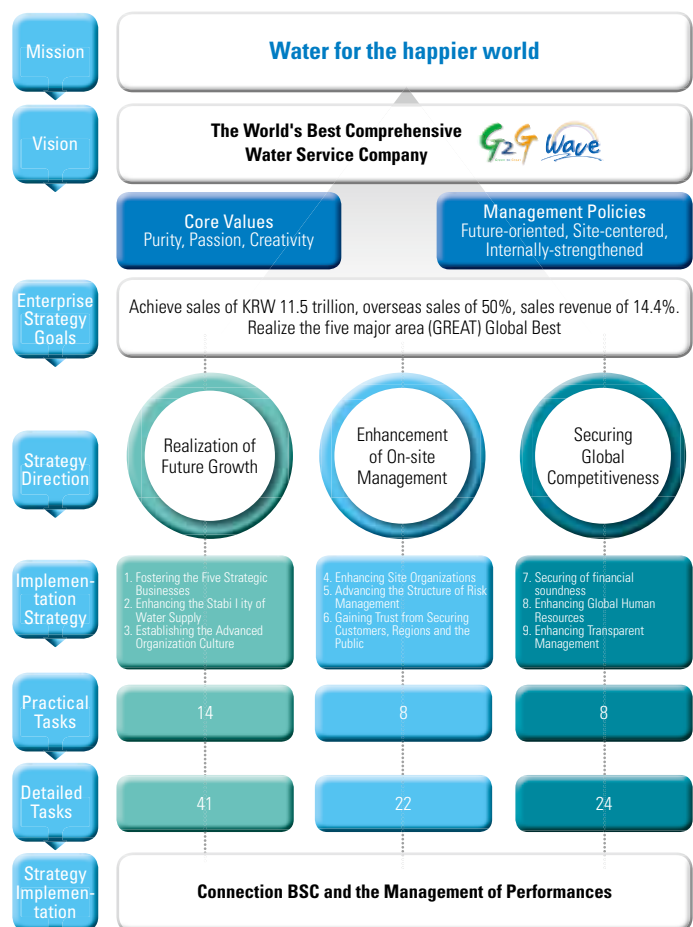
Technology A technological company that leads future markets

3 Key Strategic Directions

The three key strategies for sustainable management are the realization of future growth, strengthening of onsite management and acquisition of global competitiveness. In order to achieve such visions efficiently, these three strategies will provide directions for focused implementation of strategies and aligned organizational activities.

Realization of Future Growth: Acquire foundations for continued growth through active responses against future risks, including climate change, restructuring within water industry and etc.

Strengthening of Onsite Management An organization capable of flexibly adapting to changes in business environment via enhanced



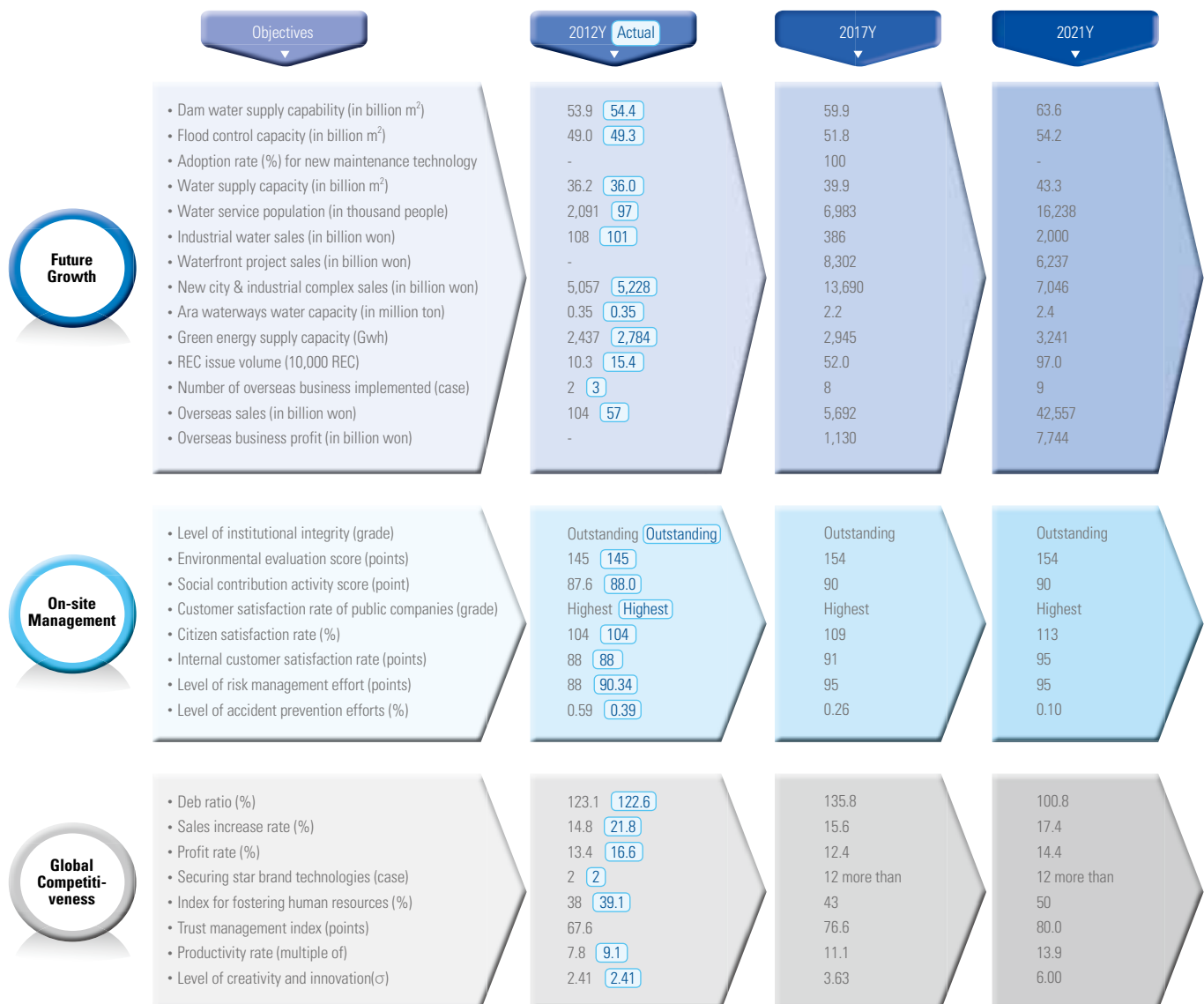
business operation that is customer/field oriented and reinforced risk management capability to cope with future uncertainty

Acquisition of Global Competitiveness: Strengthening of global capabilities, such as developing talents with customized skills and expertise and acquisition of advanced technologies as a means to achieve both quantitative and qualitative growth

Implementation of a Sustainable Management System

The sustainable management pursued by K-water increases economic profitability as well as environmental stability. It is our aim to faithfully perform our social responsibilities as a public corporation so that citizens in all areas of our nation can be supplied with clean water. It is our goal to perform green and socially-responsible management in a balanced way based on the principle of economic efficiency in order to create new corporate values and become one of the most respected companies in the world. Through systematic management, including setting of core performance targets (KPI) and linking with BSC-based performance management, K-water has achieved 103% of the performances targets vs the prior year of 2012. With such efforts on sustainable management, K-water was once again ranked, following its achievement in the prior year, as one of the top companies 'Sustainability Index' Assessment, which assesses efforts made by a corporation to contribute to economy, environment and society. The assessment was conducted by Kyunghyang Newspaper.

K-water Mid-to-Long Term Core Goals for Sustainable Management



Implementation of Sustainable Management Organization

K-water operates four divisions and 25 departments at the head office, 1 field division and 8 regional offices in the region and 24 management offices(construction offices) throughout the country. Under the direction of the vice president, the Sustainable Management Implementation Organization is in charge of overseeing the overall sustainable management, publishes the annual Sustainability Report to secure operational transparency via the independent third party review and provides stakeholders with relevant information. Moreover, K-water operates advisory committees and councils from which it gathers diverse opinions and suggestions on economy, environment and society.

Sustainable Creative Management

K-water modifies and enhances its mid and long term strategic management plans to achieve new growth engines that reflect the new management environment. Through these efforts, K-water will further strengthen its public service functions to improve the public's welfare by preventing water related natural disasters caused by the worsening of climate change and by securing stable water resources. Moreover, K-water will intensively promote new growth engine projects, such as waterfront projects, green energy projects and overseas projects through the "select and concentrate strategy". As well, K-water will do its best to achieve sustainable development of water infrastructure, such as unifying the management of dams in river basins, producing high-quality tap water, and maintaining water resources and waterworks.

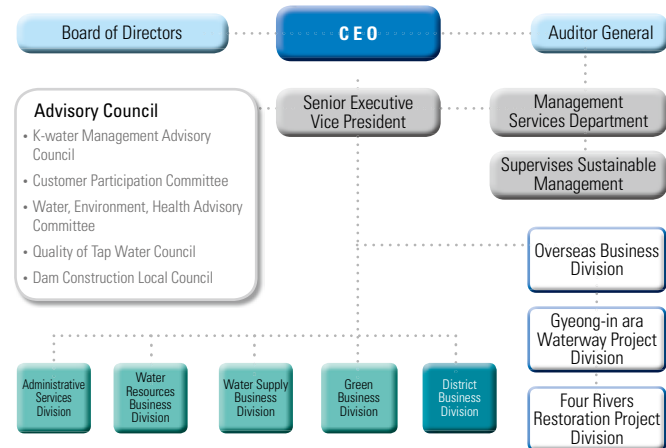
Sustainable Green Management

K-water has declared its vision for the environmental management both internally and externally, and has continuously pursued the eco-friendly management since 2002. As a result K-water has converted its management structure so that it is in harmony with the economic feasibility and the environment. Also, K-water established the Environmental Performance Evaluation(EPE) system to systematically manage the environmental effects caused by business activities and the environmental management performance. Furthermore, it manages the system as a performance indicator for major achievements of the mid and long-term management plans by setting up the EPE index to continuously improve the performance.

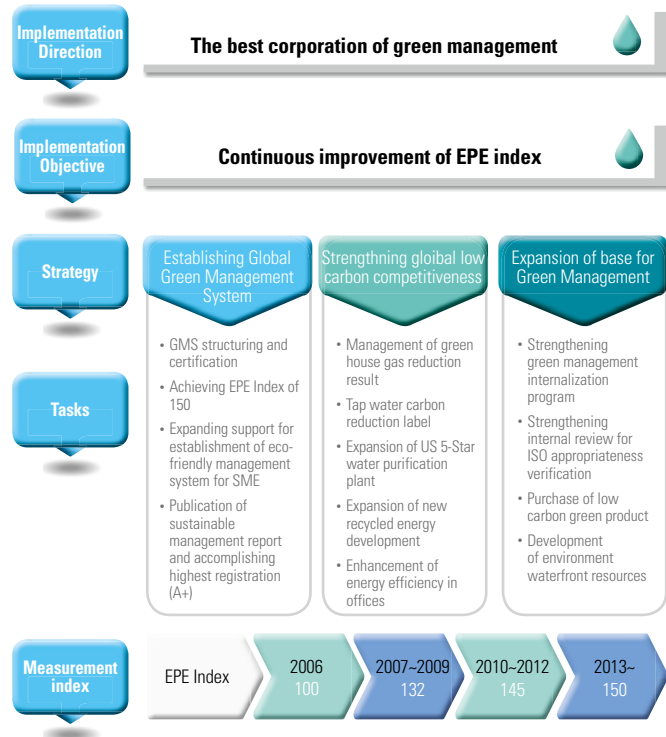
K-water's environment management has been continuously strengthened to prevent environmental risks and to create new environmental values, such as Clean Development Mechanism(CDM), based on the legal management level of the environmental performance. K-water publishes the Sustainable Management Report by collecting the results. Through the Report, its communications with stakeholders have been enhanced, while greater transparency has been achieved in terms of accessibility to information.

Moreover, in order to proactively respond to the government's Comprehensive Climate Change Response Plan, it has established the Master Plan for Dealing with Climate Change and is actively participating in greenhouse gas reduction policies established by the international community and Korean government. In addition, the company is taking initiatives in developing solutions for national climate change response system via enhancing water management capability of existing dams and through Four Major Rivers Restoration Project and Gyeongin Ara Waterway Project, which are national water management projects to prepare for global climate changes. Furthermore, the company has developed the largest renewable energy system via multi-purpose hydropower plants and Sihwa tidal power plants and, as a result, has become Korea's number 1 green energy company. A company-wide investment on environment has continuously expanded for last 3 years by increasing investments in ecological system

Sustainable Management Organization



Green Management Implementation Strategies



restoration facilities, water pollution prevention system facilities and creation of green zones to mitigate air pollution. The company has also reduced greenhouse gas emission by 9% vs the prior year of 2012 through active energy savings effort such as enhanced energy efficiency in waterworks and by implementing a project to reduce water loss rate in local waterworks, thus contributing to reduction in national greenhouse emission. K-water is currently integrating carbon management system into its core management so that, by optimizing climate change response system, the company can reduce damage from flood and famine and conserve ecological health and bio-diversity.

Greater emphasis has also been placed on carrying-out its environmental responsibilities such as strengthening reservoir water quality and river management, creating environment-friendly spaces in the areas adjacent to dams, and securing environmental soundness for national policies. It has established itself as a leading green company in Korea by becoming the first Korean public company to introduce a national green management system and building low-carbon factories and plants. K-water is well on its way to become a premiere global green company in the world.

Sustainable Open Management

Customers' demands for managerial transparency of public enterprises and environment-oriented green management companies have been increasing and therefore an open communication with customers has become an important issue. K-water's objective is to create a socially sustainable open management system by establishing a win-win partnership with each and every stakeholder in order to fulfill its corporate social responsibilities. The social sustainable management strategy is selected and operated as one of the strategic tasks in connection with strengthening its social responsibility. Moreover, K-water strives to improve its competitiveness as well as enhance its partnership for venturing into the overseas water market by pursuing one of the national agendas of the coexistence and co-prosperity with small-medium sized enterprises, and the shared growth by supporting SMEs.

K-water Socially Responsible Management Directions



Socially Responsible Management Measurement Index

Category	Achievement			Objective	Note
	2010	2011	2012	2015	
Public Service Satisfaction Index (PCSI)	Highest Ranking	Highest Ranking	Highest Ranking	Highest Ranking	Ministry of Strategy and Finance
Corporate Integrity (Audit & Inspection Dept.)	Excellent	Excellent	Poor	Excellent	Anti-corruption & Civil Rights Commission
Social Contribution Index(Promotion Dept)	84	86	88	90	K-water
Core Personnel Index (Personnel Division)	-	37%	39%	40%	K-water

※ Social Contribution Index : Participation Level X 0.3 + Activity Rate 0.4 + Employee Fund Raising Participation X 0.3
 ※ Core Personnel Index : (Semi-experts + Experts X 1.2 + Highest Experts X 1.5) / Target Employee Headcount *

*Target employee headcount : specialist and managers with 5 grade and above

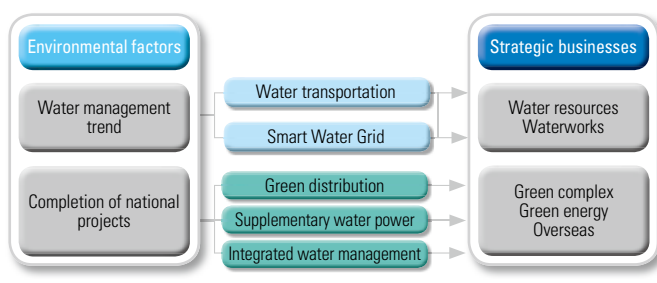
Business Structure and Implementation Strategies

K-water will achieve sustainable growth by continuously enhancing core businesses such as water resources and waterworks that are designed to proactively respond to climate changes and water security issues and developing businesses that could foster future growth such as green complex, green energy and overseas projects.

Business Vision & Strategies

K-water has been cultivating the water resources business, water supply business and waterfront business, green energy business and overseas businesses as its five strategic businesses. K-water has reorganized its strategic business units by reflecting the changes in environmental factors such as concrete development of new growth strategy that reflects new business areas created after completion of national projects, a changing trend in water management, formulation of responses to growing global water industry and re-orientation of K-water's direction for green growth. The Water Resources business is focused on integrated management by region and strives for an "Integrated Water Resources Management System to Counter Climate Change." The Waterworks business pursues the goal of "the provision of a total waterworks service to lead the water industry" and is implementing the integration of regional water and sewage systems and industrial water business projects. The Green Complex construction project strives for the goal of "creating waterfront space in which water and land are reunited" and, accordingly, the company is working on constructing waterfront spaces that can increase amenities for waterfront spaces and expand leisure and cultural opportunities. The Green Energy business strives to "lead the green energy initiative by converting and combining water and natural energies". This business domain has implemented small hydropower development, land and water based solar power generation, wind power generation, thermal difference generation and CDM businesses. For overseas businesses, K-water pursues the goal of "achieving of 50% of sales overseas" and has overseen increased investments and conducted nature-linked package businesses.

Project Portfolio Adjustment



Water Resources Business

Damages caused by droughts, floods and unusual temperatures have gradually increased alongside worsening climate change. In order to effectively respond to climate change, K-water has pursued the acquisition of an abundant water supply through the Four Major Rivers Restoration Project, the construction of eco-friendly green dams, and advances in the use of existing dams. The Four Major Rivers Restoration Project, which was completion in 2012, has secured 1.3 billion m³ of water annually and the flood adjusting volume has increased by 920 million m³. The water control performance improvement business and IT-based u-Dam safety construction have served to improve the stability of water resources facilities. For the stability of dams during times of extreme flooding, the water control performance improvement project is under progress at 11 dams with the expected completion date of 2018. K-water will also take the lead in disaster prevention by advancing ICT-based maintenance and management systems. We will also concentrate our efforts on environmental enhancement projects, including improved water landscapes within cities and rivers, increased amenities utilizing water-front areas, and investigate new concepts in water management based on water resources surveys and information projects.

Waterworks Business

The paradigm and environment of the waterworks industry is shifting from increased water supply to improving customer services, water conflicts between regions (Gyeongnam & Busan areas and Gyeongbuk & Daegu areas) and participation by private corporations. Accordingly, K-water is pursuing the clean water supply as an integrated water and sewage business structure, and increased supply of value adding water. By achieving our goals, K-water aims to provide 16.24 million people with water by 2021 and achieve KRW 2.7 trillion in sales by 2021. For these to occur, K-water will supply high quality tap-water by securing a water flux of 18.620 million m³/day, over 75% operation rate for multi-regional waterworks, enhancement of aged water purification plants, and the improvement of 725km of worn-out pipes by 2021. K-water will respond to the water-sewage integration policy of the government and strengthen international competitiveness to realize the total water service by undertaking consignment projects for 77 local governments by 2021. K-water strives to be positioned atop of the future

water market by acquiring core technologies to increase market participation. Through double-tracking of pipelines, strengthened emergency linkages, and periodic replacement of aging facilities, K-water will strive to stably supply water. Additionally, K-water will work hard to improve customer services by introducing advanced treatment facilities and improving facilities and services. For distribution systems, we will continue working to resolve shortages in limited supply areas and reduce costs based on improved operational efficiency.

Green Complex Business

While there is an increased demand for waterfront areas following the escalating trends in recreation and leisure, there are not enough waterfront areas to meet the demand. With legislation of the Special Act Utilization of Waterfronts Areas in December, 2010, it has become possible now to systematically utilize the waterfront areas the value of which has been enhanced by the Four Major Rivers Project. Accordingly, K-water aims to create waterfront areas that use water to add unique values and build competitiveness. First, K-water will focus on completing construction of industrial complex (extending Gumi industrial complex) and cutting-edge multifunctional cities (Sihwa MTV and Songsan GC). By constructing a place that can help promote leisure and tourism industry built around Sihwa Lake, the company will improve profitability of the existing businesses. The company will also introduce new revenue-generating businesses using various waterfront-related leisure and tourism resources, which include the Eight Great Landscapes of Suhyang, marinas and water leisure facilities of the Gyeong-in Ara Waterway. Furthermore, the company has a plan to build a premiere waterway system that integrates "green" logistics by developing the back-land of Incheon and Kimpo Terminal (2.05 million m²) through optimized development of Ara Waterway distribution complex. Lastly, K-water will lead the way to foster local economic growth based on local economic specialization by systematically implementing Busan Eco Delta City Project, which commenced in 2012.

Green Energy Business

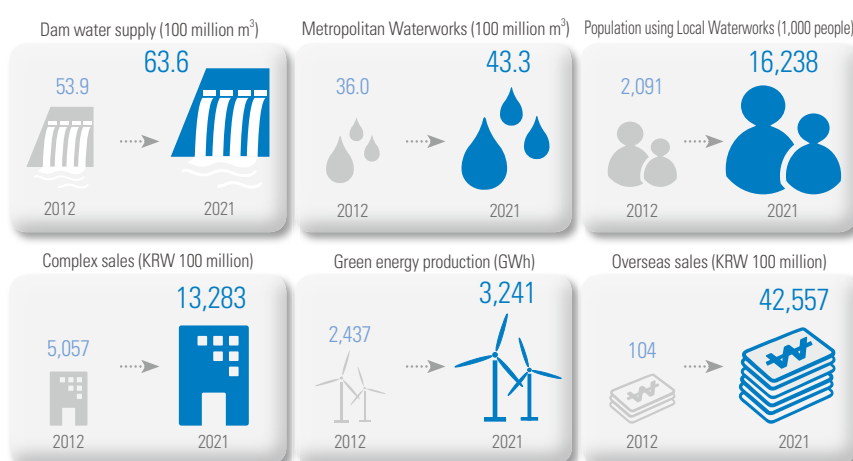
The size of the renewable energy market is expected to grow to USD 1 trillion in 2020 and become a new Blue Ocean. And with the introduction of RPS (Renewable Portfolio Standards) in 2012, new business opportunities

according to new markets (REC transactions) are also expected. K-water possesses an abundance of potential (89% out of 1,818MW) and is pursuing ways to increase its supply by diversifying generation sources with a focus on solar energy. K-water is pushing ahead with hydro power generation with the construction of 14 new facilities (7 facilities in 2011), as well as the existing 24 facilities including Hapcheon Hydro Power Plant, and weirs of four major rivers including Gangcheon Weir, as well as 254MW tidal power generation at Sihwa Tidal Power Plant. Also, K-water is pursuing various projects, such as wind power plants at Gyeongin Ara Waterway and Sihwa Bangameori, land and ocean solar power plants at 11 locations including Hapcheon Dam, and CDM project. In addition, K-water is continuously developing new & renewable energy sources, such as an air-conditioning system supported by thermal energy and wave-force generation.

Overseas Business

The size of the global water market is expected to grow to KRW 1,000 trillion by 2025 while the scope of the market is continuing to increase. On the other hand, the domestic market is already saturated with water projects as the market is shifting from new water system construction to service maintenance. In order to overcome such limitations, K-water is pushing ahead with new overseas projects based on its know-how that has been accumulated through the Chao Phraya River Development Project in Thailand and the Four Major Rivers Restoration Project. The business model has also shifted from ODA-oriented projects within developing countries to investment projects offering high profitability, such as the Patrind hydropower generation plant construction project in Pakistan that is currently underway. Through such efforts, K-water will achieve KRW 4.3 trillion in sales overseas revenues in 2021. Additionally, in order to reduce risks that may occur as a result of increased investments, K-water has organized a risk TF team to establish a risk management system and has been implementing risk management from the pre-decision making stages through the entire process. At the same time, K-water is currently working on project financing to secure financial liquidity and also planning to establish a locally-specialized financing fund to strengthen financial soundness.

K-water Business Objectives



Vision for 2021



Creative Innovation Management

K-water is continuously applying systematic and scientific innovation techniques in order to realize its corporate vision and management strategy in addition to enhanced global competitiveness.

Overview of K-water's Innovation Activities

K-water continues to actively promote innovations to secure global competitiveness despite the fast and ever-changing global business environment. K-water continues to implement innovation management programs with the aim of achieving 3 major implementation objectives which are "advanced innovation system", "advanced CoP (Community of Practice) operation" and "innovation capability management enhancement" in addition to the ultimate goal of being "Korea's Most Admired Knowledge Management company". Innovation activities are already embodied in K-water employees through the systematical operation of the CoP, promotion of knowledge management to provide concrete support to works being carried-out on-site, and continuous efforts to improve corporate culture based on the 3 core values, which are purity, passion and creativity. As well, K-water has attained a grade A rating in management performance evaluations organized by government for 4 consecutive years and the highest grade (score of 90 points and above) in the public sector business customer satisfaction ratings for 6 consecutive years.

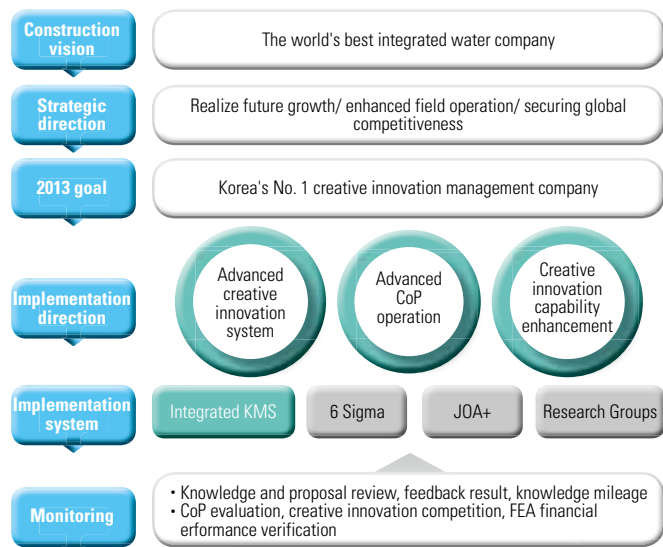
K-water's Proprietary Innovation Activity Structure (K-sigma)

K-water's innovative practice structure is organically linked to the BSC. The mid to long-term management strategies set KPI as its core performance index and are realised through innovation activities such as 6 Sigma, JOA+(an internal Innovation tool). These various innovation practices have been established as K-sigma, K-water's proprietary CoP implementation brand. Particularly, through a key performance index(KPI), 'Corporate Sigma Standard' and its core element, 'Innovation Mileage' which is a measurement of the performances of CoP and knowledge proposal activities, innovation activities are directly linked to business strategies and annual targets are defined and managed systematically. At the same time, performance results gained through CoP activities under the K-sigma brand are shared with employees through knowledge management (KM) activities such as enterprise-wide innovation festivals and integrated search functions provided by the corporate IT portal and KMS. Through these activities, a virtuous

circle of knowledge sharing and innovation has been established.

※ K-Sigma is a unique CoP implementation system brand and was created by streamlining existing CoP operating system that was very complex. It is an abbreviation of K-water sigma or Knowledge sigma.

K-water Creative Innovation Directions



K-Sigma		
6-Sigma	JOA+	Research CoP
<ul style="list-style-type: none"> • Strategy implementation CoP • Problem-solving Techniques through Actual & Statistical Methodologies • Top-Down Method for Coming-up with Tasks • Classified as mid-term (6 months or longer) and short-term (3 months or longer) 	<ul style="list-style-type: none"> • Resolve inveterate issues in departments CoP • Method of managing changes through logic, discussion and experience • Autonomous implementation for improving the organization culture 	<ul style="list-style-type: none"> • Creation of Knowledge to solve current problems CoP • Voluntary Learning to Exchange Work-related Knowledge & Current Information • Voluntary Improvement Activities if Required by Departments On-site

What is CoP?

CoP(Communities of Practice) is a gathering of employees that generates an outcome by improving the works as a result of discussions on the common agenda for a certain period and sharing the knowledge to accomplish strategies and realizing the corporation's vision.

Various cases of innovation programs

► Regional headquarters and Leader-oriented Voluntary Innovation Activities

K-water is actively supporting regional headquarters and leader-oriented voluntary innovation activities to incorporate innovation tools and mindsets for employees. Led by regional department heads and executive directors of regional headquarters, required tasks to create customer value are voluntarily selected and implemented. These innovation tasks contribute to achievement of visions by facilitating the implementation of its middle and long-term strategies and solving chronic problems in departments. In addition, heads of departments provide active support and conduct progress inspections for each activity stage to improve execution. Also, through regional presentations and the enterprise-wide Innovation Festival, bestpractices are selected, shared, and dispersed enterpris-wide. In addition, we provide various types of support, including training courses by specialized instructors and consulting for effective execution of regional headquarter-oriented innovation activities.

► Enhancing Innovation Minds

6-Sigma and JOA+ related group education, fostering programs for BB(Black Belt), GB(Green Belt) and, FEA (Financial Effectiveness Analyst), enterprise-wide workshops for innovation and knowledge experts, and CoP project leaders are provided in order to enhance employees' creative innovation minds. In addition, voluntary activities for improving the organizational culture are conducted that focus on the corporation's core values of Purity, Passion and Creativity, which incorporate the CEO's management philosophy.

► Establishing Open Knowledge Network and Autonomous knowledge-based Activities

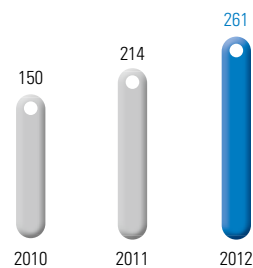
K-water is distributing expert knowledge through diverse networks with external water professional firms, cooperative firms and outside customers. Through the Waterpedia portal system that was established in 2007 and updated in 2012, K-water is sharing and distributing its knowledge in water technology not only internally but also with numerous industrial, academic and institutional sectors. The policy to embrace customer proposals is operated as part of knowledge management to utilize the diverse and creative ideas provided through diverse sources, such as general customers, cooperative firms, and management. Existing scattered work manuals have been arranged and are provided in the form of 112 core work cases, and these manuals

structure and operate the Wiki-typed management system to complete by the participation of employees. In addition, it is connected to the KMS system to enable the knowledge proposal submittal through blog and network facilitation between individuals and organizations through company blogs, and has a reply function for users with knowledge proposals to facilitate knowledge management.

Creating Creative Innovation Performance

The annual count of proposals and knowledge reached 3,500 cases. As a result of strong performances in innovation activities, financial results improved from KRW 21.4 billion in 2011 to KRW 26.1 billion in 2012 in the FEA certified financial performance report. Also, presentations for creative innovative achievements company-wide are implemented annually while a magazine for creative innovation is published and distributed to share the performance of creative innovation activities. By joining the academic-Industrial cooperation consortium of the Knowledge Management Society and presenting excellent innovative cases at the Asian Knowledge Management Conference, K-water could externally spread its excellent innovation activities outside the corporation. As a result, K-water was the first public-services corporation in Korea to be selected as the "Most Respected Knowledge Management Corporation" by Teleos, a UK institution, resulting in K-water receiving the globally respected and prestigious "Asian MAKE* Award (*Most Admired Knowledge Enterprise)" award for 5 consecutive years (2008~2012). Also, K-water received the Excellence Award in the 1st Korea Knowledge Award, Grand Prize in 2012 Public Company Management Award and is considered Korea's most respected company today.

Annual Financial Performance (Unit : KRW 100 million)



▲ Asian Make Award for 5 consecutive years



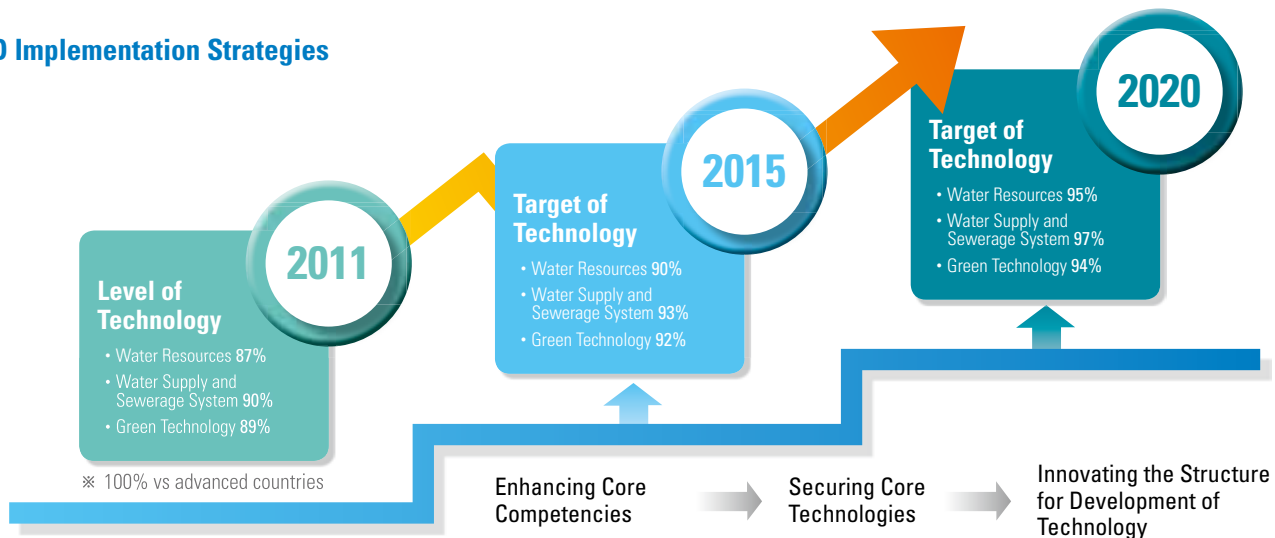
▲ Creative Innovation Festival



The Key to Sustainable Growth, R&D

K-water is not only developing technologies for efficient water management, but also pursuing technology innovation to present a vision for the future of water management.

R&D Implementation Strategies



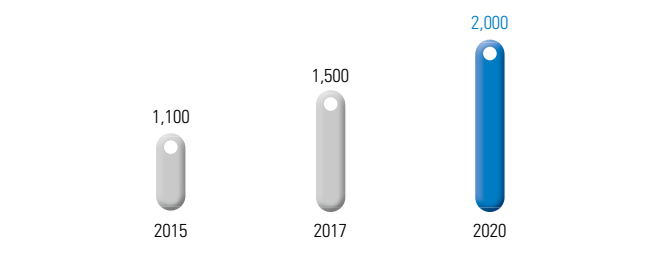
K-water established its technology goal for 2020 after evaluating its technology level in 2011. It set up a plan for improving its technology competitiveness to the level of advanced countries based on KRW 200 billion worth of investments by 2020. To achieve its plan, entire stages were classified for each area of water supply, and waterworks & sewerage system and green technology into the take-off stage (from 2012 to 2015), and the maturity stage (from 2016 to 2020). Also, K-water defined the various types of technologies, which represent its technological strategies, and reviewed implementation methods and resources distribution methods by type, and reflected them in "CoreTech 2020 : New K-water Technological Strategies."

Future Technologies Technologies that have the high potential as a core technology related the water industry, and can be deployed on a commercial scale in seven years, so they are needed for new growth industries.

Core Technologies Technologies that are needed for improving the competitiveness of the existing businesses and the expansion of new business areas, if K-water intensively invests in them by assigning a budget and human resources needed for the next four to five years.

Base Technologies Technologies that need to be kept for maintaining the existing businesses, and whose functions need to be improved or advanced.

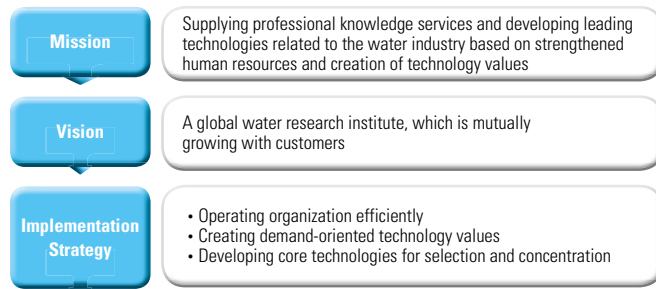
Annual Investment Plans(Accumulated) (Unit: Investments, KRW 100 million)



R&D Development Capabilities

Korea Water Institute(KWI), which researches and develops core technologies for K-water has employed 225 professional researchers (including 81 commissioned research positions), who have a master's degree or a doctor's degree, and implemented various researches, which can realize the commercialization of new technologies, such as low carbon environmental technologies, and new & renewable energies to counter climate change. These technologies are centered on the areas of water resources environment, water infrastructure, waterworks, sewerage systems, green technologies, policies and economies, and water analysis.

KWI's Mission and Vision



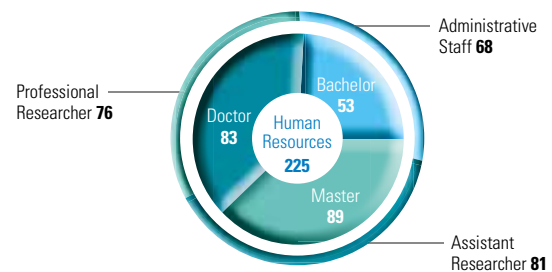
R&D Research Results

K-water invests more than 2.2% of annual sales in R&D to conduct an average of 82 research projects. On average, 390 papers have been published annually, and the number of applications for intellectual property rights including patents, continues to increase.

※ R&D budget in the existing report included cost of investigation analysis and services. However, beginning with the 2013 report, only the research cost is budgeted and R&D costs includes labor costs.
 ※ 2013 report will begin to include currently conducting research projects in research subjects and R&D cost.

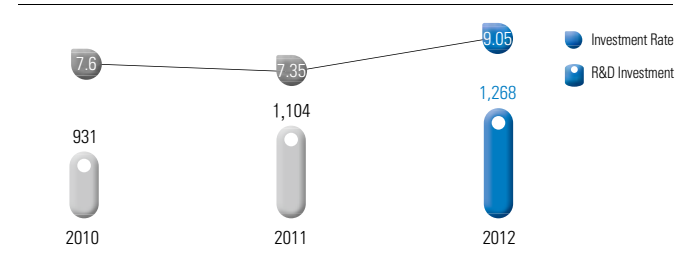
Human Resources of KWI (July 2013 based on)

(Unit : people)

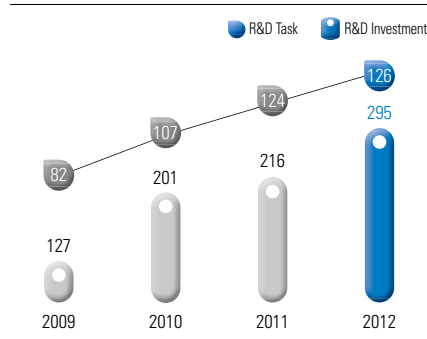


R&D Research Results

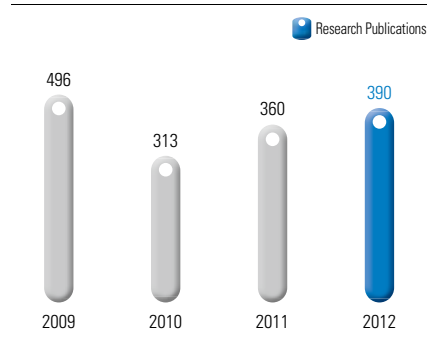
(Unit : % / KRW 100 million)



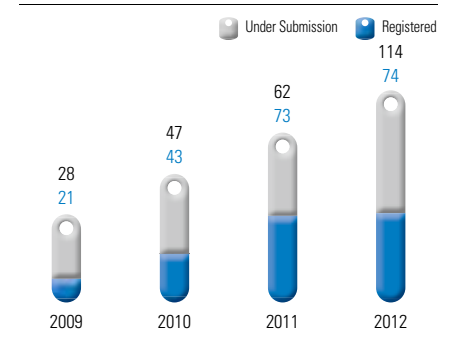
Research Projects & Budget (Unit: KRW 100 million / Cases)



Publications of Research Papers (Unit : Cases)



Patent Applications & Registrations (Unit : Cases)



R&D Infrastructure

K-water operates a world-class waterworks and a sewage research & training center which has a technology research & training support institution, a Korea's first internationally certified national hydrograph calibration center, and a flow control system that has the largest diameter in Korea at 800mm. In addition, it has a specialized institution for facilities safety examination that undertakes on-site surveys and safety examinations at the facilities, such as, repairing facilities, ports, bridges, tunnels and others as well as professional certification institution for quality tests. The Water Quality Analysis Research Center, developed to be the world's top analysis institution, has been annually expanding the items for testing the water quality since 2002, and is monitoring 250 items of the water quality items with the aim of providing clean and safe water to the public.



▲ Internationally-Certified Water Analysis Research Center



▲ Nationally-Certified and the Nation's Largest Flowmeter Calibration Center



▲ Demonstration Plant in Water Supply & Sewerage System Research and Education Center



▲ Asia's Largest Laboratory for Geo technical Centrifuge Model Tests



Moolnaduli (fork of a river) that communicates with each other

오
물
로
서로 소통하는
나들미

Just as two branches of water meet and become united as one
at Moonaduli where water leaves and returns,
K-water is building a waterway of hope that connects
mankind with nature.



Approach

Corporate Governance **22** Ethical · Transparent Management **23** Customer Happy Management **24**
Mutual Growth with Stakeholders **26** Communication with Stakeholders **28** Risk Management **30**



Corporate Governance

K-water is committed to improving corporate governance by increasing the participation of non-permanent directors in the management process and expanding the use of professional expertise in management.

Composition of Investors

The main mission of K-water is to construct and maintain dams and water supply systems for comprehensively using and developing water resources, which has a significant impact on improving quality of life and public welfare. In accordance with the Korea Water Resources Corporation Act, K-water's investors are limited to the Korea Development Bank (KDB), central government and local governments. The central government has to invest more than 50% of the total capital. As of 2012, K-water's shareholders are comprised of the central government (91.1%), KOFC (8.8%), Local governments(0.1%).

Composition & Operation of the Board of Directors

The Board of Directors (BoD), the highest decision-making body, deliberates and passes resolutions on K-water's major issues, such as business plans, taking into consideration public, economical, social and environmental factors, and the BoD both checks and supports the duties of management. The BoD is comprised of 15 directors: 7 permanent and 8 non-permanent directors, and the chairman position is served by a senior non-permanent director that contributes to reasonable checks and balances to improve the governance of the public enterprise and executives. In 2012, General meetings of the board of directors were held 13 times in total to deliberate and process 40 agendas. In addition, 4 non-permanent director meetings, and 4 special committee meetings were held to play an active role in providing management proposals by reviewing overall management affairs in-depth for K-water.

Operational Evaluations the Board of Directors

The activities of the K-water board of directors is under the objective evaluations across diverse fields, including management proposals, system operations, attendance rates and a proportion of remarks under the management evaluations and internal evaluations each year. In addition, permanent directors receive performance-based pay according to government evaluation results. The evaluations consist of a quantified outcome and a non-quantified outcome and implementation outcomes and other efforts.

Enhancement of Non-permanent Directors' Participation in Management and their Expertise

The board of directors of K-water solidifies the subjects for review, resolutions, and expands the scope of reports to strengthen the function for review and

resolution on important matters of management in its activities. In addition, the company information network is broadly open to non-permanent directors to provide support for them to acquire the management information of permanent Directors level in real time to expand their participation in management and improve the decision-making capability of non-permanent directors. Furthermore, the board of directors is supported in the decision-making process and participates in the management process by receiving reports and required materials on agendas for the board of directors in advance through work bull sessions as a form of small-scale management activity of the board of directors. In addition, for enhancing the management capabilities of non-permanent directors, observations are provided for construction sites of various national tasks, such as dams, water purification plants and national project sites so that a comprehensive understanding of on-site management capabilities can be gathered. By combining the management understanding of non-permanent directors' active external management activities with those of non-permanent directors whenever national policies have been undertaken, their efforts have resulted in significant management outcome by changing the perception of people on national projects and others.

Internal Audit & External Supervisory Institutions

K-water has established and operated an audit committee to supervise the appropriateness and impartiality of the works carried out, and also operates an independent Audit & Inspection department to supervise public officials' disciplines, conduct regular audits and perform comprehensive audits in order to improve the transparency of its management. In addition, K-water is prepared to faithfully answer to any external audits conducted by the Board of Audit & Inspection, Parliamentary Inspection, Ministry of Land, Transport and Maritime Affairs and the Prime Minister's Office.

Board of Directors

(As of August, 2013)

Directors	Name	Title
Permanent Directors	(Vacancy)	K-water CEO
	Kim, Wan Kyu	K-water Acting CEO(Senior Executive Vice President)
	Kang, Dae Ka	General
	Jun, Chan Goo	Vice President for Administrative Services Division
	Kim, Jong Hae	Vice President for Water Resources Business Division
	Han, Geung Jeon	Vice President for Water Supply Business Division
	Moon, Il Bum	Vice President for Land, Energy & Engineering Division
Non-permanent Directors	Song, Jae Woo	Chairman / Professor, Dept. of Civil/Environment Engineering at Incheon Univ.
	Ryu, Byong Ro	Professor, Dept. of Construction/Environmental/ Design Engineering at Hanbat Univ
	Park, Tae Woo	Substantiality Research Institute, Korea University
	Kim, Young Kwan	CEO of EVAgreen company
	Park, Myeong Hwan	Senior Managing Partner of Vision International Law-Firm
	Park, Chan Jung	Professor, College of Business Administration and Economics at Cheongju Univ.
	Yoon, Esook	Professor, Division of International Cooperation at Kwangwoon Univ.
	No, Joosook	Seoul Newspaper, Editorial department a senior reporter


Approach

Ethical · Transparent Management

K-water strives to gain trust from various stakeholders through ethical and transparent management connected with corporate strategies and core value.

Clean Corporation, Producing Clean Water

"In order to become a global company, we should strictly abide by the high ethical standard expected of the citizens and practice transparent management committed to basics such as social contribution and release information(Kim Keonho, CEO, 2012.8)."

K-water is aggressively pursuing ethical management under its creed that ethical management is the most fundamental and strongest competitiveness. With the  New Management Declaration in 2011, the company renewed its sustainable corporate vision and strategies and took its first step to become a globally ethical corporation.

With the efforts of all employees and advanced ethics management system such as the "Clean Leader" program, which consists of 99 leaders who lead their respective departments in ethics campaigns, the "Ethics Committee", the highest policy making body that leads ethics management and the "Clean Reporting Center", which is a place where employees can return gifts they received from outsiders in non-authorized ways, the company has received an excellent grade for 7 consecutive year in corruption prevention performance evaluation hosted by ACRC(ACRC : Anti-corruption & Civil Rights Commission).

In 2012, the company developed its own ethics index that reflects K-water's characteristics and expanded ethical monitoring across the entire organization to prevent ethical problems and to develop a clean corporate culture at K-water.

Achieving Stakeholder-oriented Corporate Ethics

K-water is initiating diverse activities based on its management policies, ethical management organizations and systems to enhance trust between its customers, executives and employees, suppliers and society. To protect customers' rights and eliminate inconveniences, K-water has promoted transparency and reduced documents required for submission to improve the Electronic Procurement System. By providing ethical training focused on actual examples and operating fair personnel management, and conducting systematic activities for preventing accidents at operations facilities to the executive members and all employees, K-water has linked ethical activities with the high quality of its water service system. A win-win cooperative relationship is maintained with its suppliers and partners by operating a consultative group for coexistence to achieve mutual growth. In addition, K-water has maintained sustainable partnerships with its partners through various supporting policies, such as increasing its support for the certification of Environmental Management System(ISO 14001) by signing a green partnership agreement with small and medium sized enterprises. These measures have been established to ensure a continuous healthy and sustainable partnership. Thanks to these efforts, K-water was awarded "The Most Ethical companies' in Korea", and it is also doing its best to implement Corporate Social Responsibilities(CSR) based on the global standard level by conducting strategic domestic and overseas social contribution activities linked with various projects.



▲ Ethical Management Evaluation Highest Grade



▲ The Most Ethical Corporation Award



▲ Grand Prize in Public Company Management



▲ 27th Ethics Committee

Customer Happy Management

K-water is becoming a premier service company that earns customer's trust through creative customer service management.

Customer Happy Management beyond Customer Satisfaction

In order to actively respond to increased demand for high-quality water services from the public and changes in the internal and external environment, K-water has systematized its customer satisfaction strategy and branded its services. First, it has set forth the CS vision of 'K-water, Making Customers Happy' and the customer value of 'Comfort, Security, Trust, One-step Advanced Services' based on an enterprise-wide participation and consensus in order to secure service differentiations and competitiveness. Under the vision, K-water established three strategic directions for the CS management of 'enhancing the CS Implementation system, advancing the operation and management of the VOC system, and improving its service and quality' through the undertaking of 9 strategic tasks and 42 practical tasks, such as customer-oriented improvement of processes. By doing so, it has significantly improved its internal and external service processes, and enhanced customers' loyalty to the company by preventing customers' dissatisfactions in advance. Also, K-water branded the 'Service Identity(SI),' for the first time in SOC public-services, to effectively deliver its customers' characteristics and to highlight its services, which is differentiated from its competitors, such as local governments. The service identity, 'Water-Pro Service,' reflects K-water's strong intention to provide proactive and professional services to its customers. It is used in various fields in the CS management, such as front-line employee uniforms, business cards, placards, various CS activities and others.

Through these efforts, K-water has acquired the highest rating for the five

Survey results of major CS outcome index and public service satisfaction index

Major Outcome index	2009	2010	2011	2012
Customer satisfaction on public service	Highest Ranking (93.7point)	Highest Ranking (97.1point)	Highest Ranking (96.1point)	Highest Ranking (96.6point)
Customer satisfaction on local waterworks service	75.8point	77.8point	79.1point	80.3point
Timely processing of VOC	99.0%	99.4%	99.9%	100%

※ Public Service Satisfaction index (hosted by the Ministry of Planning and Finance) : the grade system was implemented from 2007, the highest ranking(excellent) - 90 points or higher

※ Customer Satisfaction on Local Waterworks Service (consigned survey from external institution) : its 80.3 points in 2012 is 7.3 points higher than 73.0 points of the average points in customer satisfaction on the water supply service in 2012.

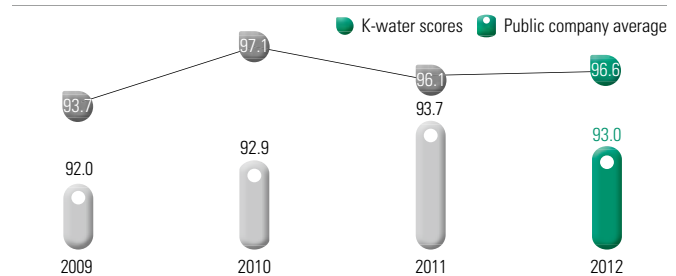
※ Timely Processing Rate of VOC: The rate of processing civil complaints within the designated period(99.9%: Out of 2,383 cases of civil complaints in 2012, only three cases exceeded the period.)

consecutive years in customer satisfaction for public enterprises under the management of the Ministry of Strategy and Finance, along with achieving 'excellent ratings' from the inspection on civil complaints administration and information disclosure conducted by the Ministry of Land, Transport and Maritime Affairs as a sign of recognition for the CS management of K-water as the highest in public enterprises.

Improvement of VOC(Voice of Customer)-based Management and Enhancement of Proactive Responses to customer Needs

K-water facilitates diversified outcome monitoring and exchanges, such as a systematic VOC collection under the all-inclusive phased network of diverse stakeholder, VOC analysis of customer portals, enterprise VOC sharing for market resources and customer satisfaction, Service Quality Index(SQI), a customer center coined "Happy Call", and others to realize the systematic and systemized VOC management as the foundational resources for customer satisfaction and management improvement. For example, for the VOC that requested the improvement in the water quality of reservoirs of dams, K-water has implemented fundamental preventive measures and improved the water quality by introducing a forecasting system of water quality as the first company in Korea as well as rapidly collecting and treating floating materials during flood seasons. For the VOC that requested the improvement of the tap-water quality and increasing the rate of drinking tap-water, by expanding filtering and purification treatment process and applying advanced water safety management laws, K-water

Result of survey on customer service of public service by year



has increased the number of water purification plants from 16 locations to 28 locations, which are equivalent to the 5-Star award standard of the US Water Association, which is the highest level in the certification system for management competency of water purification plants. Moreover, K-water has enhanced its trust from customers by making the entire process of water production and distribution displayed the Internet, installing water quality displays in the apartments where people drink tap water and achieving Top-7 in the World Water Tasting Contest. In addition, K-water has reliably supplied water without cutting off water by the non-suspension water supply method to minimize customers' inconvenience and introduced an advanced non-suspension water inspection system. It has also enhanced its door-to-door services, such as providing a service for inspecting tap-water leakage of households for free, distributing packs and pads for preventing water meters from freezing and bursting in the wintertime for free, and providing a service for inspecting the tap-water quality. Thanks to its efforts to actively accept customers' opinions and handle customers' complaints in real time, the rate of timely handling VOCs of K-water has gradually increased every year from 99.4% in 2010 to 99.9% in 2011 to 100% in 2012.

Standardized Management of Service Quality and Enhancement of Competencies for Customer Satisfaction

K-water has introduced 'Service Quality Index (SQI),' an advanced service evaluation system, to minimize customer dissatisfaction by intensively managing the quality of core services, preventing defects in the entire process of services, and improving the quality of services. K-water has set up six indices, such as inspection service satisfaction, dissatisfactory VOC occurrence rate, compliance rate of handling civil complaints, and others, and has intensively managed and improved the six indices. Also, it has established a comprehensive quality management system through monitoring services and measuring data. In particular, K-water has been

managing customer satisfaction and service quality by sharing the current status of SQI in real time and comparing the performances of by responsible employees and management unit of water supply and giving them the feedback.

K-water has achieved almost 100% in 2012 of the fulfillment rate of service performance standards, followed by 99.9% in 2011 by systematically managing the service performance standards, which are applied to 56 items, such as dams, water supply systems and complex projects, in order to enhance the corporate credibility through improvements in the service quality and fulfillment of its promises with customers.

Meanwhile, K-water has continuously enhanced all employees' awareness of 'Water-Pro', exemplary service models of K-water, and tried to internalize the models in order to enhance the mind-set of all employees towards customer satisfaction, and their competency for customer satisfaction. It has also expanded customer services education of employees both qualitative and quantitative by conducting traveling education courses for 526 employees at 40 offices every year and training for improving customer satisfaction, which are specialized by educational object through service academies. In addition, K-water has strengthened the reward system for employees in order to motivate employees to provide the highest services possible to improve customer satisfaction, and stimulate the atmosphere for customer satisfaction by publishing a 'magazine about exemplary practices for customer satisfaction' with collected cases about excellent examples of improvements in VOCs, monitoring how to kindly answer phone calls from customers, and promoting exemplary employees whom customers praise.

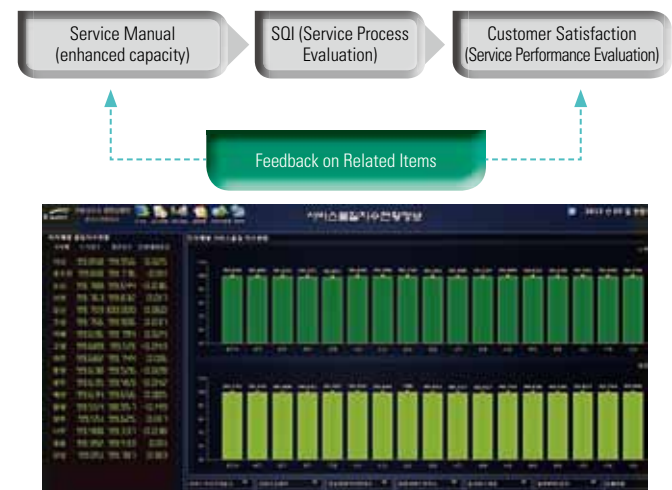
※ Service Quality Index(SQI): An index for measuring the service quality to prevent defects in the process of providing services and improve the quality.

100% VOC Processing Rate in 2012

K-water Customer Happy Management Implementation System



Service Quality Enhancement Process



Mutual Growth with Stakeholders

K-water is implementing sustainable management strategies that enable mutual growth with stakeholders as coexistent partners through continuous and systematic communication with them.

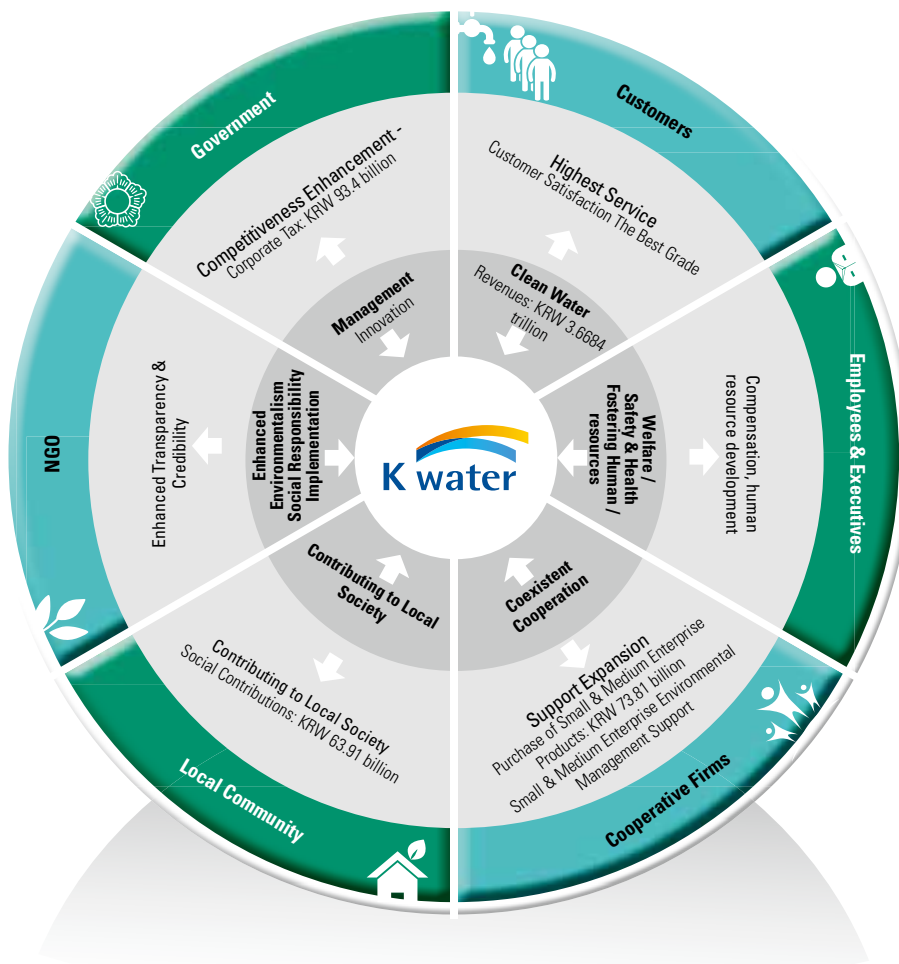
Communication with Stakeholders

K-water has operated various systems where outsiders can participate in its management activities to enable stakeholder to directly and indirectly participate in management or offer their opinions. By enabling stakeholder to participate in the management process at the decision-making stages and in project implementation processes, potential conflicts can be prevented in advance in addition to providing transparency and credibility to stakeholder. In addition, K-water has established advisory councils or committees to acquire advice on the entire businesses, and it has also operated local

councils to smoothly solve any conflicts that can occur in the process of implementing projects.

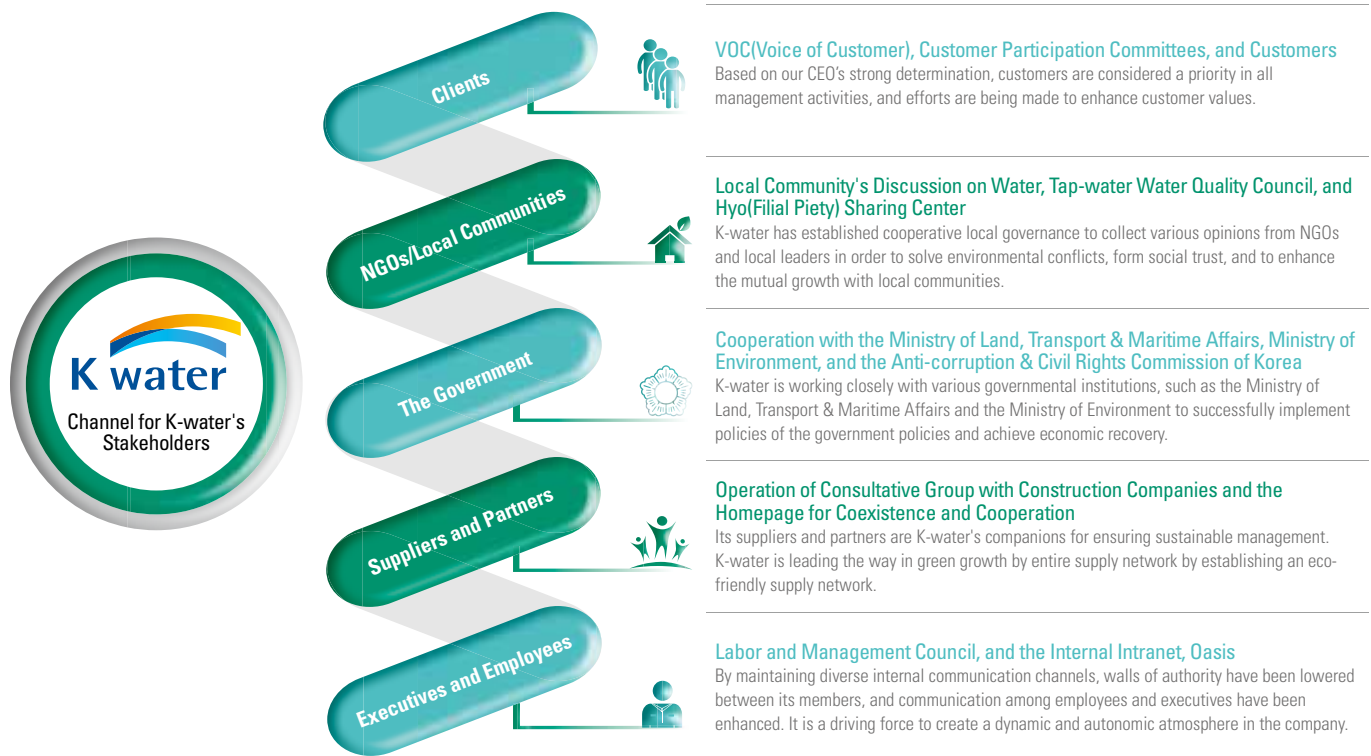
Advisory councils and committees are comprised of professionals from NGOs, academia, media, etc. and local councils, which are mostly comprised of professionals, civil servants and local residents, are operated as a consultative group to discuss local issues. K-water also works closely with related governmental institutions, such as the Ministry of Land, Transport & Maritime Affairs and the Ministry of Environment when it establishes and implements policies related to water resources.

Communication channel for each stakeholder group



Stakeholders' Participation in Management

K-water gives heed to every opinion from diverse stakeholders. Various communication channels have been established for customers, NGOs, local communities, the government, suppliers and partners, and executives and employees to collect various opinions and suggestions regarding major issues of concern, and to actively reflect them in management. Anyone can participate in the VOC system through K-water's homepage, and K-water is always trying to make sure that everyone's voice is heard.



FOCUS

With Customers: Awarded Prime Minister's Award

K-water's volunteer group was awarded with the Prime Minister's Award in the 1st "Korea Love-Sharing Award" (October 25, 2012) for its contribution to local community in the company's active participation in social programs. In particular, the company was selected as a recipient of "Talent Sharing Prize" for making diverse social contributions that best utilize the company's assets. (from the 4 fields of Talent Sharing, Happiness Sharing, Life Sharing, Hope Mentoring)



Communication with Stakeholders

Through various communication channels, K-water is continuously communicating with its stakeholders to discuss major issues, and to reflect their opinions in the management.

Importance of the Communication with Stakeholders

Projects initiated by K-water have a direct or indirect influence on various stakeholders. At the same time, the stakeholders significantly influence K-water's corporate policies. To actively conform to the new environment, corporations need to further their communication with stakeholders. Communication with stakeholders is the best way for corporations to search for means to coexist with stakeholders. Communication with stakeholders is important in that it contributes to the sustainability of corporations by proactively identifying risk factors and taking counter measures.

Framework of Communication with stakeholders

Communication with stakeholders starts from understanding its stakeholders. K-water has classified the stakeholders into five groups: customers and local communities that are direct target for business activities of K-water; the government which influences the direction of major policies; executives and employees which are at the center of its innovation and growth; and supplies and partners. Communication between these diverse interested parties and K-water is the most fundamental way for all concerned parties to grow together.

Ways of Accessing Issues of Concern of Stakeholders



K-water's Materiality Evaluation Process



Implementing K-water's Materiality Test¹⁾

In the GRI (Global Reporting Initiative) guideline that provides the global guideline of the sustainable management report, it recommends that the highest priority should be placed on reporting the information that stakeholders want. In other words, it is required to find out, analyze and respond to the interests and demands of concerned parties, and include the contents in the report. K-water has established and maintained diverse communication channels, which enable the company to find out the importance of demands from stakeholders and to reflect them in the sustainable management strategies. In particular, the performance outcome of the sustainable management strategies, in which various demands from stakeholders are reflected, is open and accessible to the public through the Sustainability Report published by K-water, and diverse efforts are made by K-water to communicate with stakeholders. To enable stakeholders to directly and indirectly participate in management or provide their opinions, K-water has established and operates diverse communication channels which include the VOC, where stakeholders can suggest their opinions, customer participation committees & informal customer meetings, sustainable management advisory councils, government personnel dispatches, and surveys. Stakeholders' demands that have been collected through various

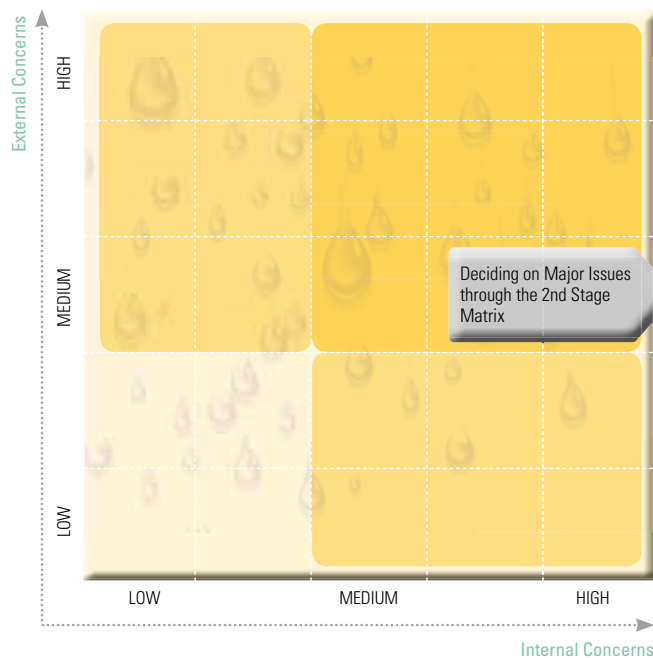
1) Materiality Test Refers to a method of distinguishing issues by priority based on understanding important information for stakeholders to derive at issues of High Interest and High Risk for stakeholders. The aim is to configure contents of substantiality reports centered on issues designated as Material Issues.

communication channels are first categorized before prioritizing them through the materiality matrix. Once the demands are prioritized, the materiality is evaluated. The matrix evaluation is initiated through a two stage-process. The first stage involves the evaluation of internal and external interests. The second stage of the evaluation takes into consideration the impacts on businesses and management competencies. The detailed implementation and performance results about important issues determined in the first level evaluation proceed to the second stage evaluation and will be included in Sustainability Report. The issues for the second and third stage evaluations will be summarized in a report. K-water has established and used the materiality evaluation model of K-water based on the advice of professional institutions.

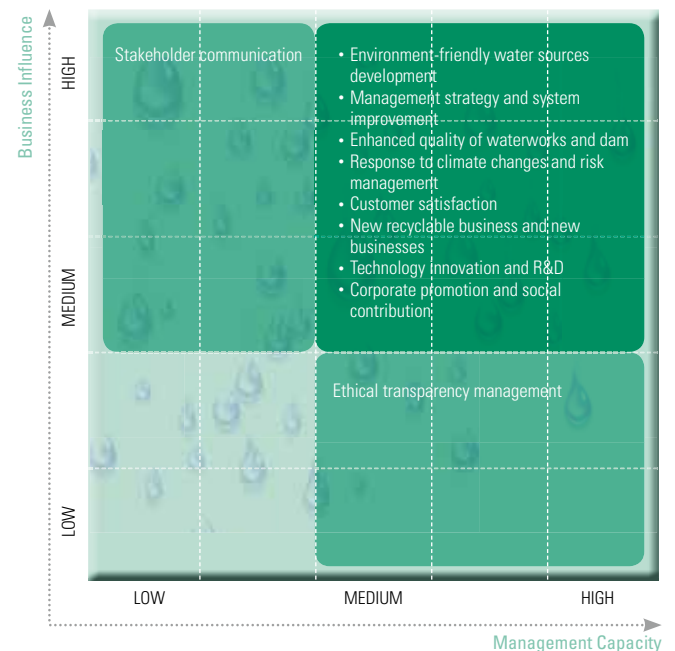
K-water's Sustainable Management

To identify important issues for K-water's sustainable management, the following diagram outlines the major interests of stakeholders. These issues are implemented through K-water's management strategies and related departments and the performance results of implementing these issues are disclosed to the stakeholders through the sustainability report. K-water is actively trying to communicate with stakeholders, such as customers, local communities, academia, NGOs, the government, executives, employees, suppliers and partners. K-water will make a sustainable growth platform by identifying stakeholder demands in advance and by enhancing the values of both K-water and stakeholders through cooperation.

Key Sustainable Management Issues




※ Evaluation of 1st phase interest level : K-water has implemented a questionnaire for civil organizations, officers and employees for confirming the key issues through communication with various inside and outside interested parties.



■ Very High Materiality: Detailed Implementation Contents & Performance Reporting
 ■ High Materiality: Simply Record
 ■ Low Materiality: Don't Report

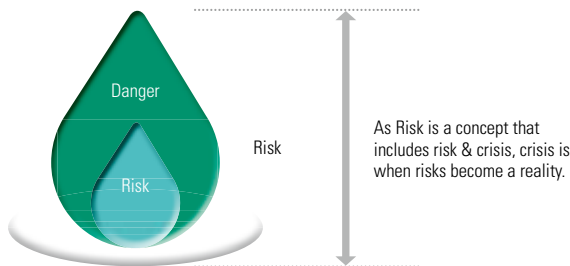
Risk Management

K-water Risk Management() is a process for achieving its management objectives, and increasing the values of the company by forecasting and efficiently managing potential management risks (financial, non-financial) company-wide.

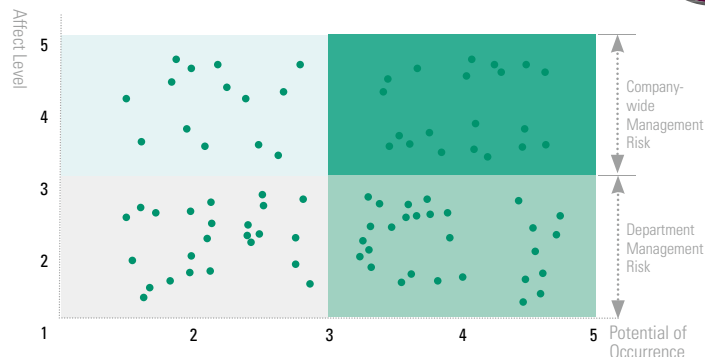
Structure of Risk Management

K-water Risk Management (KRM) can be divided into pre- and post-risk management. Risks across four areas of management, conflicts, disasters and PR are managed. Risk management is a process of conducting preventive measures not to let potential risks develop into real risks, and refers to continuous activities of managing 'vulnerable facilities' and monitoring 'Key Risk indicator (KRI)'. Risk management also refers to a post-management process in case a real risk actually occurred. In the case of risk situations, recovery steps are to be taken, which includes deciding on the level of warning and setting up an emergency action headquarters based on the countermeasure manual by risk type. Risks are evaluated by the influence that can affect the management activities of K-water, and by the possibility of the occurrence, and K-water focuses on preventive measures by classifying the risks into company-wide management(Important risk) risks and department management(risk indexes by division) risks.

Risk Concept Outline



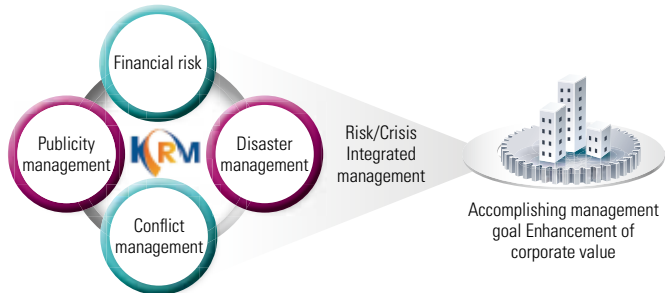
Risk Segmentation



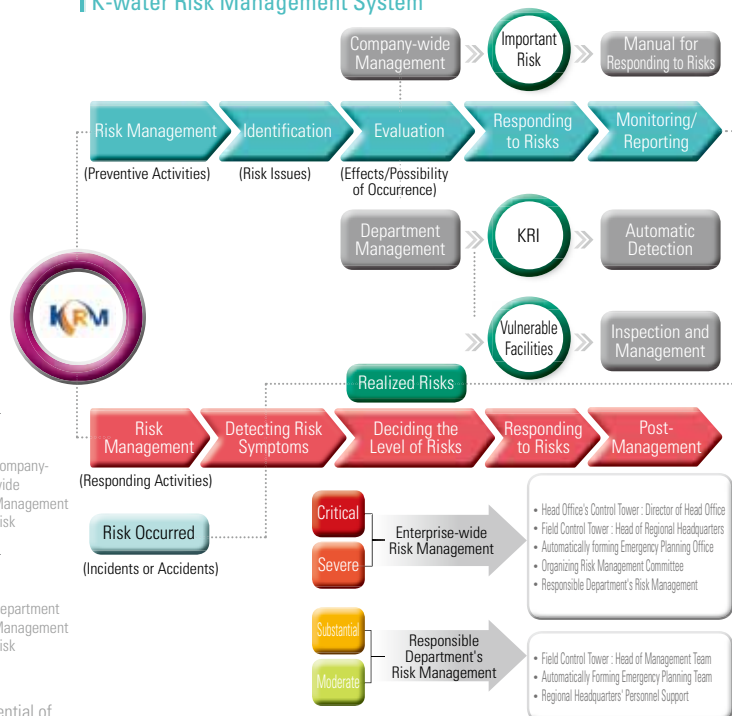
Process of Risk Management

K-water has established a phased risk management process to prevent risks from spreading by incorporating a standard model for public-service risk management guidelines into its risk management. As a result, about

Corporate-Level Risk Management



K-water Risk Management System



900 countermeasure manuals for risk management on four risk areas including management, conflicts, disasters and PR were published and distributed to working-level employees so that they can easily utilize the manuals on-site. K-water responds to risks through the four levels (Moderate, Substantial, Severe, Critical), according to its severity based on comprehensive considerations on risks including ramifications, and if a risk is necessary to deal with company-wide, the Risk Management Committee headed by the Senior Executive Vice President as the Chief Risk Officer (CRO) is established to manage risks. The Business Planning & Coordinating Department is responsible to establish strategies for risk management and the risk management organization system is operated to enable responsible departments and on-site management departments to rapidly and efficiently respond to risks depending on the type and level of risks.

Operation of a real-time Emergency Management Center (EMC) in case of an emergency accident

The company has re-established its risk response system and enhanced risk prevention and risk management system in innovative ways. Moreover, by conducting in-depth interviews with employees who experienced the Gumi water shortage crisis, the company has developed its own risk management system called KRM by introducing a "real time emergency management center" model, which is a new type of system that allows staff to concentrate on recovery while reducing their workload. The new system is a customized, user-oriented risk management system in which it is possible to register and respond to emergency cases in convenient ways and also automatically form an emergency response team in case of emergency. Also, it is possible now to use mobile broadcasting equipment to do a real-time broadcasting and, through integrated management of information such as the list of emergency response experts, recovery process materials and status reports, the team can monitor the recovery process in real time without being constrained by space limitation.

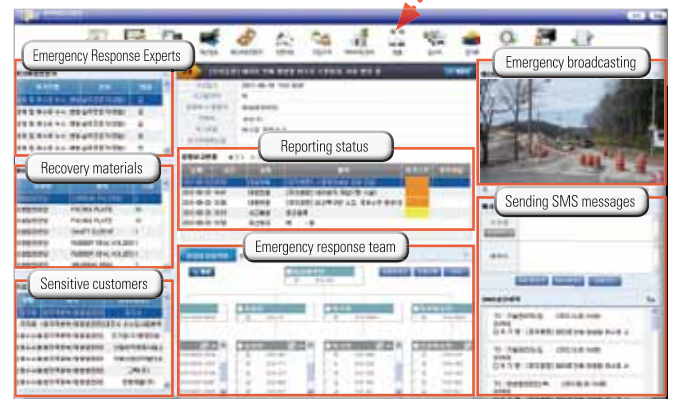
The company used multi-regional waterworks to supply agricultural and industrial water during Korea's worst drought in 104 years

There are many serious droughts today across the globe. In particular, in June, 2012, Korea experienced its worst drought in 104 years and reduced the water supply in agricultural reservoirs to the point that they were in critical condition. Also, due to the shortage of industrial water, five companies in Daesan forest and sea area (Hyundai Oil Bank, Samsung Total, Honam Oil

KRM web site



Real-time Risk Management Center



Refinery, LG Chemicals and KCC) faced the threat of having to stop their operations. K-water responded by forming an independent drought prevention center to cope with the crisis and utilized the emergency system support in multi-regional waterways to supply 300,000 m³ of emergency water to 29 reservoirs, providing significant relief to a 600 ha area of agricultural land. It is estimated that the company's efforts saved 3.6 billion won in agricultural damage due to drought. In addition, the company saved 59 billion won in potential business damage by supplying the entire industrial water volume (130,000 m³/day) needed for 5 companies in the Daesan area to prevent the stoppage of operations. This was achieved by way of connecting emergency water pipes to local areas. Finally, the company provided water tank vehicles and bottled water to regions with serious drought problems in Gangwon, Gyeonggi, Chungnam and Chungbuk provinces.



▲ Agricultural water supply



▲ Provide water-tank vehicle



▲ Supply bottled waters



Yeoulmool^(Rapids) that strives forward

앞으로 나아가는

여울물

Yeoulmool strive forward in confidence and becomes
a wider river and even the ocean.

K-water also strives forward in confidence and will become
a premiere globally renowned integrated water management company.



Challenges

GREEN Economy **35** GREEN Environment **49** GREEN Society **63**





Challenges

Green Economy

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Challenges

Successful Implementation of Green New Deal Project I

Four Major Rivers Restoration Project

The Four Major Rivers Restoration Project has solved basic water problems such as droughts and floods and laid a foundation for balanced local economic development and green growth by rebuilding the land centered on river system.

Background

In Korea, 70% of annual precipitation falls during summer season, which makes water management particularly difficult. In addition to flood damage that recurs every summer, global climate change is increasing the possibility of large-scale natural disasters that we have never experienced in the past. During the dry season, the drying of the water system and water contamination deteriorates ecological health. Moreover, in the past, most waterfront spaces were left as agricultural spaces and monopolized by small groups and there was a lack of policies to accommodate people's increased demand for water (water leisure and cultural activities). Accordingly, the Presidential Committee on Regional Development decided to introduce the "Four Major Rivers Restoration Project" (December, 2008), a "green new deal" project with uniquely Korean style, in order to handle water problems caused by climate changes, improve water quality and ecological system, expand leisure and culture spaces and ultimately help overcome economic crisis.

Project Details

The Four Major Rivers Restoration Project invested a total of 22.2 trillion won (Ministry of Land - 15.4 trillion won (K-water, 8 trillion won), Ministry of Environment 3.9 trillion won, Ministry of Agriculture and Forest 2.9 trillion won) in national rivers that are 1,266km in length (Han-gang River 255km, Nakdong-gang River 470km, Geum-gang River 272km and Youngsan-gang/Seomjin-gang River 269km). The project consisted of dredging works (450 million m³), bank fortification (784km), construction of multi-purpose weirs (16 weirs) and small to medium size dams (3 dams), elevation in agricultural reservoirs (93 reservoirs), water quality enhancement projects (1,281 places), bicycle road (1,757km) and construction of waterfront leisure spaces (130km²). Each project was assigned and carried out by designated departments.

Project Performance

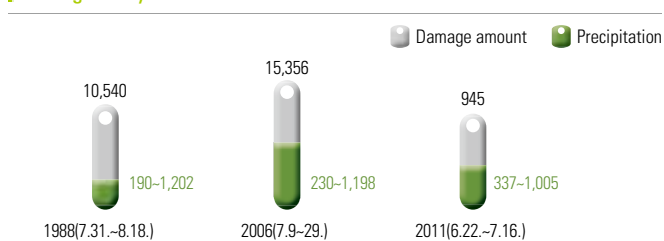
Although climate changes have frequently produced large-scale flood damages all across the world, dredging works done in the project have reduced the flood level and as a result, the water system remained relatively safe even against the biggest flooding occurrence in 200 years. Despite the record breaking floods Korea experienced in 2011 and 2012, the flood level of the main river branches came down 2~4m and prevented large-scale flood damage from occurring. In 2011, total flood damages were reduced to 1/10 of the past levels. In 2012, although big flood damage was expected as a result of the unprecedented occurrence of 3 consecutive typhoons landing in Korea, (the first time since climate

Major Projects

Flood Prevention Policy	Dredging work: 0.45 billion m ³ , Constructing flood control filtration pond: 5 places, Reinforcement old levees of aged dykes: 784km, Expand drainage gates in Nakdong-gang and Youngsan-gang river.
Securing Water Resources	Multi-purpose weir(16 weirs): 16 reservoirs, Small to medium size dams: 3, elevation agricultural reservoirs: 93 places
Removing waterfront pollution and enhancing water quality	Water chamber enhancement project: 1,281 places, Cleaning up agricultural land by the river : 6,579a, Removing waste: 2.86 million ton
Enhance ecological health	Creating new wet land: 12,538 million m ² , Creating ecological river: 858km, Fishway: 33 places
Secure space for local growth and cultural/leisure activities	Bicycle road: 1,757km, Waterfront ecological park: 130km ² , Develop vistas: 36 places

Damage Analysis of 4 River Areas

(Unit : billion / mm)



Fire and Disaster Prevention Department



▲ Nakdong-gang River, Before/After Haman-gun, Gyeongnam



▲ Before/After Constructing Waterfront Park in Hampyeong2 District in Youngsan-River

observation had begun in Korea), flood damage was not significant in the areas that benefitted from the Four Major Rivers Project. 1.17 billion m³ worth of water resources (dredging & weir 720 million m³, dam 240 million m³, elevation agriculture reservoir 210 million m³) were secured to prepare for water shortage caused by climate changes. Since the water level of the main river branches increased by 1.8m in comparison to that of the period before Four Major Rivers Project, it was possible to provide stable water supply around the main river branch areas without much water shortage despite the worst drought in 104 years that occurred in May and June of 2012. When the agricultural reservoir elevation and dam projects are completed in the future, the areas away from the main river branches will also benefit from rich water supply. In addition, waste materials and waterfront pollutants abandoned in waterfront agricultural fields and river streams have been removed. Overall water quality is improving in terms of BOD, TP and chl-a (algae index) as a result of removing water pollutants such as waste materials in the waterfront agricultural fields and river streams, enhancing or expanding sewage treatment facilities and securing abundant water resources. The BOD enhancement goal established in the master plan (86.3% good water ratio) has already been accomplished in 2012.

The project laid the ground for growth of local economy and related industries (leisure and tourism, bicycle and etc.) by attracting 17 million visitors to the Four Major River areas or 70,000 bikers to ride the national bicycle road since October 2011-the accomplishment made possible by using waterfront spaces that have been neglected as agricultural land or vinyl houses to build ecological parks, national bike

roads, camping grounds, athletic facilities (baseball stadium, soccer stadium, gateball court, tennis court and etc.), ferry docks and convenience facilities. Furthermore, it must be noted that the project had already contributed to local businesses and job creation for local residents when it introduced expanded implementation of "local responsibility common contract system" (20% turn-key, 40% or more from citizens and requirement for local businesses to participate) during the project. During the project, the wetlands with high ecological value were preserved as much as possible and waterway repair was done in slow slopes in order to induce the natural growth of wetlands. Also, fishways and new wetlands were developed to promote ecological health. Hydropower plants installed in the 16 weirs can produce 270 million KWh of environment friendly energy that can supply to a maximum of 58,000 households, from which we expect 180,000 tons of CO₂ emission reduction and KRW 26.4 billion worth of sales of electricity.

Finally, achievements made as a result of the Four Major Rivers Restoration are receiving positive evaluations from international organizations such as OECD. As well, Thailand, Morocco, Paraguay and Peru have made MOU agreements and bench marked the project. In particular, K-water participated in international bidding for Thailand's water management system project and qualified as finalists in all 10 project areas (February, 2013).

※ The entire government body (Ministry of Land, K-water, Ministry of Environment, Ministry of Agriculture and Forest) participated in the Four Major Rivers Restoration Project and it summarizes comprehensive performance results by each government office and department.



▲ Automobile Camp site in Han-gang River



▲ Nakdong-gang River Bicycle Road (Daegu)

FOCUS

Overcoming the dry season through the Four Major Rivers Restoration Project

Before the project, the shortage of water in the four major river areas caused people to request dam water release (20 times between 1999-2009). However, in 2012, there was not a single request for dam water to be released. As well, the Nakdong-gang Chilseo water intake station (240,000 m³/day), which suffered from water problems regularly in 2001, 2002 and 2009, did not experience any water shortage problems in 2012.

▶ Nakdong-gang water shortage relief - Yeoyeon water plant in Changnyeong-gun Gyeongnam



May 2009 Hanhae-si (exposed water intake reservoir)



June, 2012 After Changnyeong Hamanbo reservoir construction

Challenges

Successful Implementation of Green New Deal Project II

Gyeongin Ara Waterway Project

Gyeongin Ara Waterway is Korea's first in-land waterway. It is paving the way for future of green growth in Korea through construction of environment friendly transportation system and places for a new type of waterfront culture and art.

Great Voyage toward a Greener Future

Since it began construction in June, 2009, Gyeongin Ara Waterway underwent 7 months of pilot tests and opened in full scale on May 25, 2012. Gyeongin Ara Waterway uses a vessel transportation system which includes a main transportation channel, floodgate and terminals to establish an environment-friendly transportation system and is providing rich waterfront values through the construction of new types of spaces for waterfront culture and art.



▲ Project Map for Gyeongin Ara Waterway

Green Revolution in the Distribution System

Gyeongin Ara Waterway, since its opening, has transported a total of 350,000 ton worth of goods and 260,000 passengers. Through diversification of transportation routes, expansion in new cargo volume, diversification of passenger travel routes and other efforts, Gyeongin Ara Waterway is becoming a great waterway with high traffic volume in goods and passengers. In particular, by developing a new transportation demand called "ultra-weight cargo" and transporting 17,000 ton worth of goods in 2012, it saved KRW 2.8 billion in in-land transportation costs and 150 days in transportation time. By constructing a dock-based distribution complex, it sold 53% of the space even before the completion of the complex, a remarkable achievement that demonstrates the success of the in successful green distribution system.



▲ Incheon Terminal Container Dock, Gyeongin Port



▲ Western Sea Gate at Gyeongin Port

Creating New Types of Waterfront Spaces

Gyeongin Ara Waterway hosts a variety of places for waterfront culture and arts such as Soohyang 8-Gyeong, parkways and theme parks, leading the way in the development of new types of waterfront culture. In particular, the Ara Bicycle road constructed along Yangahn waterway and marina facilities where visitors can experience a variety of water leisure sports have established themselves great places for tourism and leisure in the metropolitan Seoul area. By hosting diverse cultural events in waterfront spaces, it is contributing to local economic growth and improving people's quality of life.



▲ Jeongson-jin Sunset



▲ Ara Marina



▲ Water Leisure Experience



▲ Ara Bicycle Road

Challenges

Renewable Energy Business towards a Sustainable Growth

K-water leads the green energy industry as the green hub of Korea including hydro, wind, solar power and has the largest number of registered domestic Clean Development Mechanism(CDM) projects in the UN.

Operation & Development of New & Renewable Energy

K-water is actively coping with the global crisis caused by climate change and is fully committed to developing renewable energy resources in support of the government's creative economic initiative.

As of 2012, K-water operates hydroelectric power plants with a total capacity of 1,069MW, (63% of the nation's hydropower generation capacity of 1,746MW). Moreover, we have completed and operated the Sihwa-lake tidal power plant since 2011, the world's largest tidal power plant(254MW), and continued to develop and operated hydroelectric power plants on the four rivers (51MW) and wind power plants located at Gyeongin port, Sihwa Bang-a-muri (6MW) and finally the floating photovoltaic system on the surface of a dam reservoir through the completion of a 100KW pilot plant in 2011, and a 500KW commercial plant in 2012 respectively, both of which are located at Hapcheon Dam in Gyeongsang Province. The success of the system has received significant attention from the related industries. It is an eco-friendly technology to be regarded as a new paradigm of energy resources. It does not cause any harm to the environment, and generates 10% more electricity than a land-based Photovoltaic system. With an effort to lessen the construction cost based on continuous technical improvements, strengthen the marketing public relations activity, the company will take a lead in the related industries. In 2012, K-water has produced 2,785 GWh of electricity by using 73 hydro, tidal, wind and solar power energy generation. This is equivalent to 42% of the total volume of national renewable power generation and has produced 4.71 million barrels of import substitution effect and reduced CO₂ emission by 1.26 million tons.

1,356.1 MW, New Renewable Energy Operation and Total Capacity

New/Renewable Energy Operation and Development (31, Dec. 2012) (Unit : MW)

Category	Operational Status		Developmental Status		Total
Hydro power	●51, including Soyang Dam	1,069.8	●7, including Buhang Dam	8.5	1,078.3
Tidal Power	●Sihwa Tidal power plant (the world's largest)	254	-	-	254
Wind power	●Sihwa Bangamuri, Gyeongin-Port Wind Plant	6	●Gampo Dam wind power	2	8
Solar Power	●12 plants, including Bonpo solar power plant	2.5	●2, including Asan Water Purification Plant	1.2	3.7
Cooling/Heating by Thermal Difference	●9 plants, including Daecheong Dam thermal plant	1.6	●2nd Lotte world	10.5	12.1
	Total	1,333.9	Total	22.2	1,356.1

Clean Development Mechanism and Carbon Credits Trading

Also, K-water leads the vanguard of the nation's push for lowering carbon emission reduction. The company has started CDM projects since 2005. It has registered a total of 12 cases with the United Nations Framework Convention on Climate Change (UNFCCC) which amount to 531,000 ton CO₂ reductions annually, the largest number of cases registered by any entity in Korea including Sihwa lake tidal power plant and four rivers' small hydro power plant. Moreover, at first we have succeeded in securing 106,000tons of CO₂ emission reductions (CERs) from UNFCCC since Sihwa-lake tidal power plant commenced operations in 2011. Since K-water sold 6,782CERs obtained from the greenhouse reduction performance in small scale hydropower plant I project on a basis of 2007 to ABN AMRO of Netherland in September 2008, it has sold a total of 151,471 CERs to realize 662 million won in carbon profit until the end of 2012. K-water will continue to pursue a CDM business strategically including sales network diversification to realize a sustainable growth.

151,471 CERs, Total Carbon Credit Sales

CDM Registration Status (2013.4)

(Unit : MWh/y, ton CO₂/y)

Project Name	Target	UN Registration	Annual Capacity	Reduction Target
Sihwa lake Tidal power	Sihwa	'06.06	507,629	315,440
small scale hydropower I	Andong, Jangheung, Seongnam I	'06.10	15,473	9,689
small scale hydropower II	Daecheong, Juam, Dalbang, Seongnam II	'07.02	13,944	8,664
Sihwa Bangamuri wind power	Sihwa Bangamuri Wind power	'07.11	6,293	4,013
small scale hydropower III	Gosan, Pangyeo	'09.11	5,557	2,987
small scale hydropower IV	Seongduck, Buhang	'10.10	4,963	2,759
small scale hydropower V	Angye, Heongsung 2	'12.04	4,603	3,100
Water Efficiency Enhancement	Paldang 3 Chui	'12.08	-	7,044
Hydropower VII	Sejong, Gongju, Baekje, Sangju	'12.09	57,541	38,237
Hydropower VIII	Nakdan, Gumi, Chilgok, GangjeongGoryong	'12.09	58,170	38,654
Hydropower IX	Dalsung, HapcheonChangnyeong, ChangnyeongHaman, Seungchon, juksan	'12.09	79,597	52,892
Hydropower VI	Ipo, Yeosu, Gangcheon	'12.10	76,406	50,772
Total			830,176	534,251

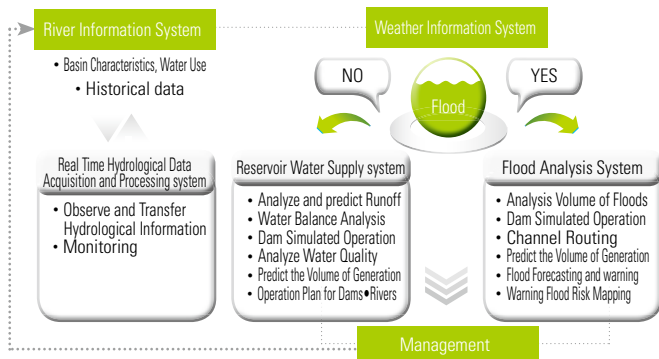
Challenges

ICT-based Integrated Water Resources Management

K-water makes the nation safer from water related natural disasters such as droughts and floods, through an advanced ICT-based scientific integrated water resources management.

Scientific Management of Water Resources by Intelligent Integrated Water Management System

Water in the 21st century is in the spotlight and has been coined the “blue gold”, but it has been more difficult to manage water resources, since the uncertainty about rainfall has increased and water related natural disasters occur more frequently due to climate change. Now is the time when the nation's competitiveness depends on how limited water resources are used efficiently and how to overcome water related natural disasters. K-water has implemented scientific water management to counter climate change by establishing an integrated water management system which converges know-how of water management accumulated for the last 40 years and high-tech ICT technology. K-water has prevented natural disaster damages caused by water and maximized the efficiency of water by stably managing floods and supplying water through five advanced systems, which were established by process of water management, by using supercomputer-based Precipitation Forecasting System(PFS), Flood Analysis System(FAS), and Reservoir Water Supply system(RWSS) and optimized operations of 32 dams including 16 multi-purposed dams and 16 weirs across the nation. K-water has taken the lead in developing and applying advanced technologies for national water management and has ventured into the overseas market of water management technologies by packaging its own core technologies for water management, “K-HIT,” which is K-water's brand for integrated water management, a first such case in Korea.



Establishment of an Integrated Water Management System

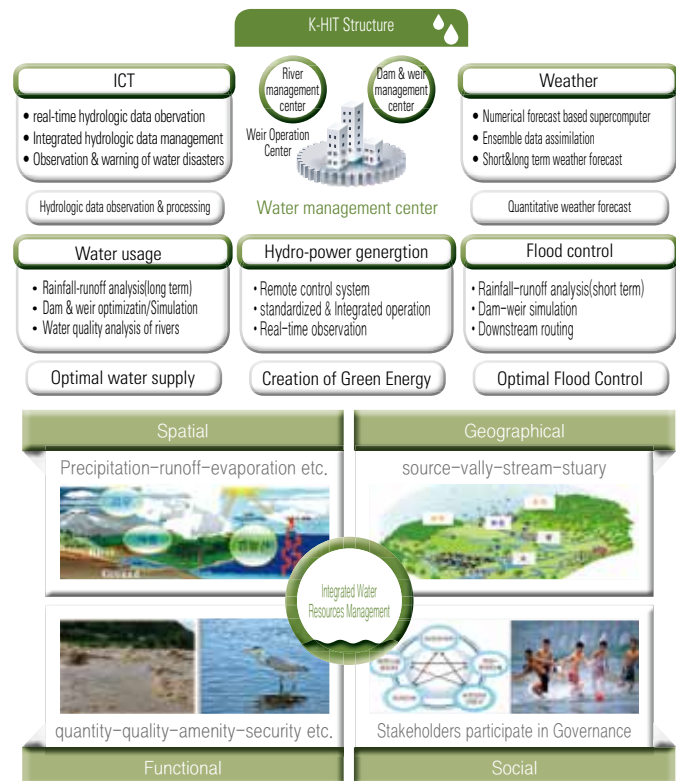
The paradigm of water management in the world has changed to Integrated Water Resources Management (IWRM). IWRM means integrated management of water resources, which takes into consideration water quantity as well as water quality and the environment of rivers in order to maximize social and economic benefits through water. K-water is making efforts to establish an integrated water management system that

manages water resources by basin unit, connecting dams, weirs and rivers after the 4 Rivers Restoration Project. K-water is running a stable operation of 16 weirs multipurpose weirs by using water management technology and establishing integrated water management center by watershed unit. Also, the company is continuing to establish the integrated water management system by streamlining the management system that is needed for operation that connects dams and weirs and standardizing the operational system

Major Achievements in Water Management in 2012

K-water successfully managed floods without any damages in the downstream areas of dams despite clearly abnormal weather phenomenon during in 2012 flood (drought -> rain -> heat wave -> successive typhoons) based on scientific water management; enhanced national water security by securing 9.84 billion m³ in terms of stable water supply, the highest volume in history; and significantly contributed to the stability of the national electricity by producing 2.8 billion kWh of green energy(hydro power).

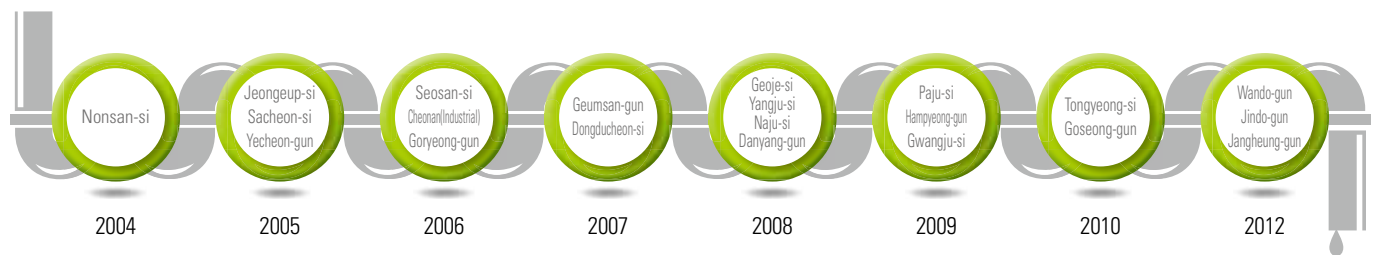
K-water Hydro Intelligent Toolkit



Challenges

Successful Operations of Local Waterworks

Based on advanced management techniques and technological capabilities, K-water is contributing to improved customer satisfaction and enhanced competitiveness of national water supply services in preparation for opening of water market.



Projects for Enhancing the Efficiency of Local Waterworks

The operation of domestic waterworks is divided into the multi-regional waterworks (K-water) and local waterworks (162 local governments). The leakage rate of local waterworks is 83.5%, which is lower than the 99.8% rate achieved by multi-regional waterworks, and the rationalization rate for water bills of the local waterworks is low at 76.1%. In addition, most of the local waterworks are small in size, lack the manpower and technology, and are financially weak, making it difficult to invest in facility improvements. This can cause a vicious cycle of low quality and poor services. Utilizing the experience and expertise gained from operating multi-regional waterworks, K-water is taking measures to enhance the efficiency of the domestic local waterworks business through consignment management of the local waterworks. By integrating the operations of multi-regional and local waterworks, water resources utilization can be maximized, while redundant and excessive investments can be prevented.

The Current Status of Project Implementation

Since the Nonsan Water Supply Service Center was opened in April of 2004, K-water has taken care of all operations including water supply and management of 21 local waterworks (Nonsan, Jeongeup, Sacheon, Yecheon, Seosan, Cheonan(industrial), Goryeong, Geumsan, Dongducheon, Geoje, Yangju, Naju, Danyang, Paju, Hampyeong, Gwangju, Goseong, Tongyeong, Wando, Jindo, Jangheung). In the next 20 to 30 years, K-water will invest a total of KRW 942.8 billion in 21 local waterworks system to replace old pipes, establish IT-based integrated operation system and implement scientific pipe network management to lower water loss rate and reduce cost. In doing so, the company will try to optimize its management efficiency.

Operational Performance of Local Waterworks

Facility improvement and operation based on scientific methods have improved the water loss rate from 61.9% to 80.6% in 2012, saving 7.3

million tons of water from water loss. Also, by providing services such as a water loss restoration team, free indoor water loss detectors and a 24 hour call center, the company enhanced customer satisfaction level by improving national customer satisfaction water service average by 7.3 points, from 73.0 in 2011 to 80.3, thus contributing to enhancement of both quantity and quality of water service. In addition, the company is working on various awareness campaigns such as "tap-water drinking apartment campaign" and "water quality certification test" in order to remove "people's unfounded anxiety about water quality".

Improvement in leakage rate

(Unit : %)

18.7%p improvement

61.9

Before Trust

80.6

2012

Customer satisfaction enhancement

(Unit : points)

15.3 points improvement

65.0

Before Trust

64

2012

80.3
73
K-water
NSCI

Future Plans

K-water will strive to improve the management efficiency of local waterworks system through continuous expansion of its local waterworks projects. The company will also try to improve the competitiveness of the domestic waterworks industry in preparation for an open water market. K-water aims to provide general water management services based on integrated operations and management of local waterworks as well as waterworks & sewage treatment integrated management linked to current sewage treatment projects. Based on vast experience with technologies within the domestic waterworks & sewage treatment sector, K-water will establish a platform to expand into overseas markets.

Integrated Management of Waterworks Facilities

K-water established an integrated water supply system to secure the stability of water supply by efficiently using water resources, alleviating the imbalance in water supply among regions organized around connected systems.

The Current Status of the Integrated Operation of Waterworks Facilities

K-water has automated operations of all waterworks facility processes, including water intake plants, pumping plants and water purification plants through the development of an integrated waterworks management system. By operating the all waterworks facilities from the regional integrated operations center, and by remotely monitoring and controlling the water production and supply process 24 hours a day, facilities are not only efficiently operated and managed, it also enables K-water to secure a leading role in water management technology. In addition, K-water was able to achieve personnel reduction and technological competitiveness improvements by integrating the operations across all areas, allowing the company to achieve tangible/intangible savings while creating the operational foundation of metropolitans-locals linkage and strengthening waterworks facility maintenance by promoting the local operational center. In addition, K-water has developed into the world's largest general water service provider by developing the world's largest integrated operation center in which 23 water metropolitan waterworks facilities (capacity of 9.305 million m³/day) are operated within one place.

IT Based High Tech Waterworks Facility Integrated Operations System

K-water divided its operations into 7 sectors centered on the regional headquarters across the country to optimize water resources. To enable integrated operations of waterworks facilities in each sector, K-water is establishing an IT & automation technology-based waterworks integrated operations system. By successfully implementing the establishment of integrated operations across all areas and sectors from 2005 to 2010, K-water is expected to be the world's first to achieve a multi-regional integration operational system on a national level.



▲ World's Largest Metropolitan Integrated Operations Center

Future Plans

K-water is currently in the process of integrating the operations of multi-local waterworks for integrated operation. K-water will do its best to reliably supply more clean water to the public by embodying a truly integrated water supply operation system that can rapidly respond to risks around the clock through upgraded plans in which changes in the operation environment of water resources are continuously reflected.



Multi-regional Waterworks	Local Waterworks
<ul style="list-style-type: none"> Expedient Realization of an Integrated Water Supply System by Sector Improvement of Operational Platform & Upgrade of Water Treatment 	<ul style="list-style-type: none"> Integrated Operations between Multi-regional & provincial, Professional Personnel Balance between Business Expansion & Financial Stability
Sewage	Corporations Industrial Water & Desalination Projects
<ul style="list-style-type: none"> Waterworks & Sewage Treatment Integrated Business Development Joint Business Implementation with Private 	<ul style="list-style-type: none"> Expansion into the Highly Valued Water Supply Market Expansion into the Medium to Large Scale Desalination Project Business

● ~2009 ● 2010

Established in the Jeonbuk Area[2005]
Established in the Chungcheong Area, Metropolitan Area[2006]
Established in the Jeonnam Area[2007]
Established in the Gangwon, Gyeongbuk and Gyeongnam Area[2010]
Opened integrated operation in all areas[2011]

7 Areas

Completed all areas of K-water waterworks integrated establishment



Challenges

Water Friendly Green City & High Tech Green Complex

K-water creates futuristic integrated cities and high tech national industrial complexes leading the national green growth initiative.

High Tech Green Technology Mecca, Sihwa MTV

To utilize the tideland formed as a result of the construction of the Sihwa embankment in an environmentally-friendly manner, the development of the Sihwa MTV (Multi-Techno Valley) located in the tideland area North of Sihwa Lake, and Songsan Green City located in the tideland area South of the Sihwa Lake are being pursued. Sihwa MTV is aimed to supply high-tech industrial areas in metropolitan areas and improve the environment of the Sihwa complex and will be a high-tech integrated industrial complex (9.84km²) with diverse functions and facilities, including eco-friendly high-tech and venture enterprises, logistics, distribution and supporting facilities by 2016. The Sihwa MTV development project will create approximately 70,000 jobs and result in approximately KRW 9 trillion annually from production and will play a significant role in regional growth and the national economy.

Eco-friendly Future City, Songsan Green City

Songsan Green City is planned to establish the business undertaking direction through the operation of private-government council in "Sihwa District Sustainable Development Council" and urban planning management professional (MP) group undertaken with the goal of making efficient use of the reclamation land in the southern area of Sihwa Lake. The project will be undertaken with a projected cost of KRW 9.405 trillion at the site of 55.86km² (16.9 million pyeong) to build the integrated city with a population of 150,000 residents (60,000 households) harmonizing in a natural environment and tourism, leisure and residence with the goal of completion by 2022. We are also planning to achieve an environmentally-friendly future city where nature and humans co-exist by structuring the ecology of the entire city. The entire business district is specialized in 5 blocks for marine tourism and a leisure complex, city centered, automobile theme park, dinosaur fossil site, and ecology residence complex with the metro transportation improvement measures costing an estimated KRW 1.5 trillion. And the foregoing is connected to corporate investment and industrial facilitation which will result in the creation of 196,000 jobs and have an expected economic effect of KRW 25.2 trillion. K-water expects to invigorate the area and create pleasant integrated living spaces which

will be a representative industrial region of the capital area, and furthermore, it will play a significant role in contributing to the growth of the Northeast Asian economy.

Catalyst for National Economic Growth, Gumi-Yeosu National Industrial Complex

In line with the government's policy towards developing the infrastructure industry, K-water initiated the construction of national industrial complexes in the Yeosu, Changwon, Onsan and Gumi areas from 1974. The national industrial complexes Changwon and Onsan were completed where as the other complexes in Gumi and Yeosu are currently under construction. The Gumi industrial complex, started in 1977, currently has 2 complexes, #2 and #3, which were completed in 1995. The 2 complexes cover an area of 7.4km². The #4 Gumi industrial complex was completed in 2010 with an area of 6.8km². The complex has truly grown into Korea's largest national industrial complex with major domestic and overseas global corporations such as Samsung, LG and Exxon Mobil, and approximately 1,400 other companies currently occupies the complex. In addition, K-water is pushing ahead with the construction of an 'expanded complex' to improve settlement conditions in the Gumi National Industrial Complex, which has led the economy of Korea, a high-tech industrial complex, 'high-tech Valley' and Digital Industrial Complex (Free Economic Zone), which is aimed to attract foreign investments. To comply with the government's low carbon green growth policy, the complex will be developed into an environmentally-friendly complex by adopting new renewable energy facilities, high efficient energy utilization facilities, and a bicycle network. As Korea's largest general petrochemical complex, the construction of the Yeosu national industrial complex was completed with an area of 11.3km² between 1974 and 2000. The Yeosu complex expansion project that was initiated in 1992 is expected to be completed by 2013 with an area of 7.81km². Currently, petrochemical companies such as GS Caltex and LG Chemicals have operations at the complex. By developing the complex in conjunction with the multi-regional Gwangyang Bay area, K-water is contributing to balancing regional development and to securing national competitiveness.



▲ Bird-eye view of Songsan Green City



▲ Bird-eye view of Gumi National Industrial Complex

Global K-water

Utilizing its accumulated advanced technology and experience gained from domestic water management, K-water strives to share the benefits of clean water with nations that face water problems.

Trend in the Global Water Market

The global water market is rising as the "21st century's Blue Gold Industry" as the world economy faces increasingly more globalized and open competition without barriers. The market size of water industry is estimated to grow from 480 billion dollars in 2010 to 1 trillion dollars in 2025. Also, the recent phenomenon of global climate change is transforming the traditional system of waterworks into a comprehensive integrated-water service industry consisting of "integrated water area development + waterworks + alternative water sources" that encompass the entire water cycle system. In the early 2000s, water companies in France and the UK dominated 70% or more of the market, but competition for the water market among countries has become fiercer now today, as advanced countries including the Netherlands, Germany and Japan, are supporting their companies to advance into the global water market by forming individual associations for the water industry, and SUEZ of France, the world's second largest water company acquired a majority of shares of Agbar of Spain, the world's third largest water company. In the situation, K-water is taking the lead in creating wealth for the nation through entering into the global water market based on its technological capabilities, credibility, and internal/external networks accumulated over the last 40 years.

Strategy for Project Implementation

In order to respond to the rapidly changing market situation, K-water, with a mission of "Using water to make the world happier", has established a "G2G

Mid- and Long-term Management Strategy". The strategy aims to achieve "Global Best in 5 Areas" and has set the goal of achieving KRW 11.1 trillion in sales, with 50% of the sales from overseas and operating profit of 14.4% by 2021. In terms of overseas business, the company established a strategy to globalize the business by expanding into the global market, diversifying business areas and enhancing competitiveness.

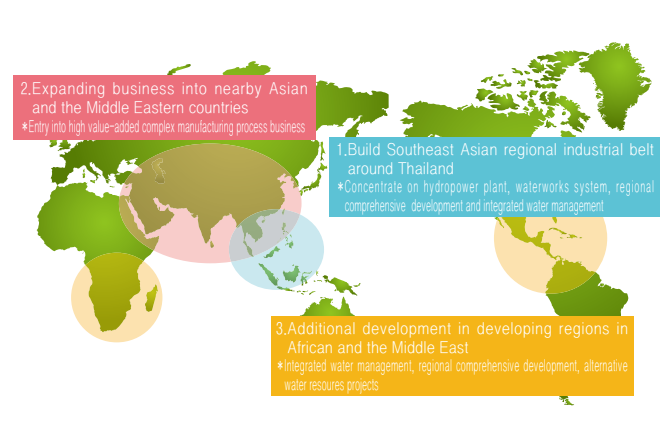
Expansion of K-Water Markets

With K-water's rich business experiences, the company plans to lay a strong foundation for early business by building a regional industrial belt around 7 Southeast Asian countries and expand its high value-added complex manufacturing process business to the nearby Asian and Middle East regions. The company established an expansion strategy to enter developing countries in Africa and the Middle East by expanding the scope of its business to include integrated water management, integrated water area development and alternative water resources business. Based on accumulated experiences, K-water has created a strategic business portfolio that includes integrated water management in addition to waterworks construction and hydropower plant business in which the company maintains a comparative advantage. Also, the company will reinforce the relationship between ODA businesses and investment businesses and explore project financing methods and regional investment funds to help expansion in participation market.

Strategy for Project Implementation



Expansion in overseas market



Diversification of Business Areas

K-water is pushing ahead with an integrated water management system project in Thailand based on its experiences in integrated water management system, IT technology and water resources management that the company accumulated through the Four Major Rivers Restoration Project. Thailand is working to build an integrated water management system (total project cost of KRW 10.5 trillion with project period of 5 years) around Chao Phraya River area in order to prevent flood damage and promote economic growth. Using the accumulated experience and expertise, K-water participated in the project early in the process beginning from the master planning phase and was selected as pre-candidate for all areas of business in the bidding process and submitted the final business proposal. After successfully completing the project in Thailand, K-water plans to use the experience to export its integrated water management technology such as additional development in comprehensive water management to other Southeast Asian countries nearby as well as to Latin American countries. Moreover, K-water is working on a plan to diversify business areas in which the company will develop high value-added complex manufacturing process businesses by implementing IT-based intelligent comprehensive regional development and management projects and develop 4D (space + time) virtualization technology based on Smart River Grid and. Moreover, the company is entering alternative water resources business such as seawater desalinization and recycling of sewage water.



▲ K-water CEO having a discussion with the prime minister of Thailand

Enhancing Risk Management

Participation in overseas projects has not only its own risks but also "national risks" associated with policy, currency and other characteristics to the countries the company wants to do business with. To anticipate and accommodate such

risks, the company developed a risk check-list by each business phase and quantified/systemized it to conduct analysis of the investment environment of the target country in advance. This is to establish a management system that minimizes and distributes various risks that can materialize during project operation by conducting in-depth analysis on the feasibility of a project. In order to improve financial soundness associated with a full-scale investment by each project, the company has secured effective financing methods from major domestic/overseas financial institutions including project financing and financial investment participants. Also, the company purchased insurance for its investment in order to hedge risks such as default situations, war or force majeure and distributed risks by forming consortiums with private companies to make a joint entry into overseas businesses. Besides risk management, the company is also expanding its global network of related companies both domestic and overseas in order to strengthen global competitiveness. Accordingly, the company has transformed and expanded the existing office to SWC (Smart Work Center), hired experts, developed professional human resources to pursue a localization strategy.

World's Best Comprehensive Water Service Corporation

As Korea's representative water service corporation, K-water is following the government's policy to promote the overseas expansion of public enterprises. K-water is utilizing its overseas project execution capabilities and technological expertise accumulated over the past 40 years and with this, K-water will expand opportunities for private enterprises to enter into the overseas market as a result of public enterprises expanding overseas, and will also take the lead in creating national wealth. K-water will do its best to advance in its goal of being the world's best comprehensive water service corporation, to realize the mission of "Water for the happier world".

In-progress Projects	Completed Projects
21 Projects in 16 Countries (KRW 3.1148 trillion)	39 Projects in 21 Countries (KRW 41.2 Billion)
Pakistan, China, Indonesia, Nepal, Philippines, Laos, Thailand, Egypt, India, Equatorial Guinea, Cambodia, Vietnam, Mongolia, Iraq, Kuwait, DR Congo	Nepal, Laos, Rwanda, Mongolia, Vietnam, Bangladesh, Sri Lanka, Haiti, Afghanistan, Uzbekistan, Iraq, India, Indonesia, Equatorial Guinea, China, Kenya, Cambodia, Congo, Peru, Philippines, Kyrgyzstan

1) Standard of Total Project Cost: ODA and Technical Services (total cost spent for the project), Invested Business (Investment from K-water and joint participated companies and Project Financing)

Best Practice

Hydro Power Generation in Patrind, Pakistan

In regards to Hydro Power Generation in Patrind, Pakistan, K-water is pushing ahead with the "Patrind Hydro Power Generation Project" to build and operate a hydro power plant with a capacity of 150MW near the branch of the Indus River of Pakistan. The Patrind project involves the construction of a hydro power plant with a total cost of USD 4.36 million in the next four years. K-water will hand over the operation rights of the plant to the Pakistan government after K-water operates it for 30 years. K-water started the project by acquiring the shares of the local subsidiary, which was established for the Patrind Project, in 2009. K-water has acquired various local licenses, and concluded financial agreements and concession agreements over the last three years to start the construction of the plant.



▲ Water Use Agreement (2012.02)



▲ Main Dam Construction (2012.03)

Challenges

Streamlining of Industrial Water Operations

K-water is continuously working on streamlining its operations and contributing to enhanced corporate competitiveness and stable supply.

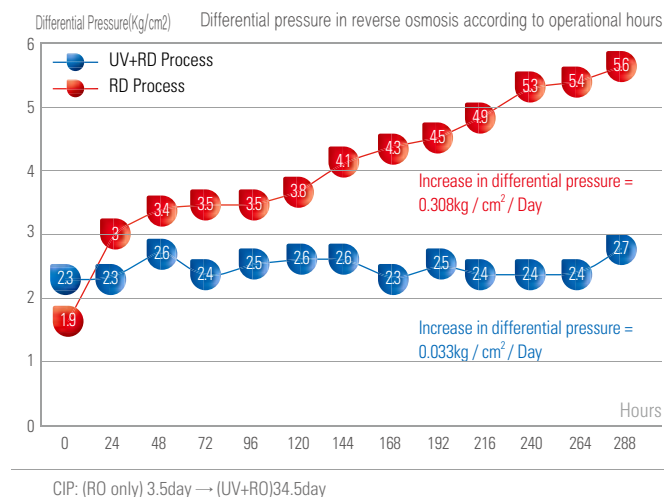
Dangjin Hyundai Steel Operation Management and Streamlining

Since consignment management of industrial water management (182,000 m³/day, reverse osmosis) began in 2009 for Hyundai Steel's Ilkwan Steel Factory in Dangjin, the company has been making its best efforts to stabilize and streamline facility operations. With the commencement of Korea's largest reverse osmosis supply facility operation, the company has established and operated efficient operation systems based on early operational status analyses. In particular, the company ran a pilot test for UV sterilization device to reduce bio-fouling, resulting in excessive chemicals cost, and increase in chemical washing according to reverse osmosis contamination. When applied to the manufacturing process in the future, it will contribute to enhanced efficiency in quantity/quality stabilization. In addition, the company published an "Operation Manual" to promote systematic operational management and is making various efforts to make facility operations more stable and efficient.

Streamlining Daesan Customized Integrated Industrial Water Supply Operation Management

K-water has completed construction of integrated facilities to enhance corporate competitiveness of Daesan Imhae Industrial Complex in Seosan and promote the growth of the domestic water treatment industry and supply customized industrial water (capacity of 119,000 m³/day, reverse osmosis) to five companies in Imhae Industrial Complex (Hyundai Oil Bank, Samsung Total, Honam petrochemical, LG Chemicals and KCC) and is supplying industrial water (2012.8). For integrated supply facilities, Submerged Membrane Filter (MF) with outstanding performance and abundant cases to meet customer needs and high efficiency-energy saving type reverse osmosis with excellent saline removal ability and high productivity were applied as main process. The company continuously experimented with model plants on various factors including water quality and quantity and made efforts to improve operational efficiency by deriving/applying optimal operational factors. K-water is also making additional efforts to improve operational efficiency via diverse technology development such as efficient treatment for reverse osmosis brine and standardization of the overall reverse osmosis process.

The result of applying UV sterilization



2012 Operational Manual



Challenges

K-water Technology Development

K-water continuously pursues the discovery of core technologies that reflect changing internal and external business environment and management conditions as well as "star brand" technologies for use to develop our core technologies into brands.

Through "Core Tech 2020", a company-wide comprehensive technology innovation plan, K-water has secured core technology projects that reflect changes in internal/external business environment and management conditions in an effort to respond to changes in business environment such as development of "low-carbon green growth" national economic growth policy and in order to secure core technologies in advance to utilize "select and focus" strategy to ensure success of business projects. K-water is continuously working on developing "start brand" technologies to develop its core technologies into a successful brand.



Water Resources Sector

Integrated Water Resources Management Operation Technology

K-water has developed the "IWRMS (Integrated Water Resources Management System)" by taking into account rivers and river basins as well as quantity and quality of water and is commercializing the technology. This technology assists dam managers to perform optimal water distribution and decision making by allowing them to comprehensively assess the condition of water quantity and quality. The technology provides solutions that ensure a stable water supply and optimal river discharge control even during droughts and floods. The technology is being applied to the four major rivers and was aggressively marketed in the overseas market, which has produced good results.



Advanced Dam Safety Management and Decision-Making Support System

To effect a paradigm shift in dam safety management, K-water has developed the next generation integrated dam safety management system. This risk level-based dam safety management assessment tool (D-SMART) uses a technique that provides scientific, engineering and quantitative assessment criteria for safe management of physical structures. In addition, expanding the conventional concept of safety that was traditionally limited to physical structures, the tool enables comprehensive analysis of the entire water system affected by dams so that users can discover and manage potentially vulnerable area and control risk levels accordingly.



Development of Commercialization Technologies for Floation Solar Power System

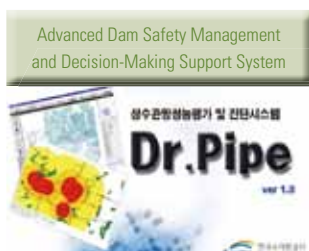
A floating solar power generation system is a new type of solar power technology that grafts land solar power and floating water technologies and is also a green technology that converts unused water surfaces to create green energy while minimizing environmental impact. Floating solar power system is a high value-adding and the state-of-the-art technology that generates environment-friendly energy while conserving ecological system by suppressing algae break-out. It has succeeded in converting idle water surface into a new type of energy source and has a potential to become a future reservoir model that grafts IT and BT technology. K-water installed a Korea's first floating photovoltaic generation test plant (2.4kW) on Juam Dam in August, 2009. Based on the testing results from Juam Dam, the world's first commercial 100kW floating solar power generation system was developed at the Hapcheon Multipurpose Dam in October, 2011. By 2022, we plan to achieve KRW 1 trillion in sales by installing facilities of a total capacity of 1,800MW. Furthermore, the company is working on continuous enhancement of the floating photovoltaic technology such as tracking-type and sea-based, floating solar power cells in addition to development of new type of renewable energy cluster technology that combines the technology of tidal and wind power generation system.



Water Resource Sector

Integrated Water Resources Management Operation Technology

In order to efficiently use and comprehensively manage limited water resources, K-water has led the Korean 「Integrated Water Resources Management」 sector and technologies since 2001 by developing the “IWRMS (Integrated Water Resources Management System)” with consideration of dams, river basins, rivers and water quantity and quality levels. This technology provides assistance to dam managers for optimal water distribution and decision making through comprehensive consideration of the water quantity and quality within rivers and reservoirs. The technology provides benefits that enable stable water supply and optimal river discharge adjustments even during droughts and floods. Additionally, this technology was not only applied within the 4 Rivers Restoration Project, but also within the ‘Indonesia Citarum River Integrated Water Resources Management Decision Making Support System’ led by the Asia Development Bank (ADB) and will continue to be utilized in entering overseas markets.



Advanced Dam Safety Management and Decision-Making Support System

For a conversion in the paradigm for dam safety management, K-water has developed an advanced dam safety management system. The advanced dam safety management system is comprised of a decision-making assistance system, dam monitoring system, dam DB system and dam alarm system. The dam safety management decision making support system is a risk level-based dam safety management assessment tool (D-SMART) and is comprised modules according to risk factors, risk level analysis modules, and damages calculation module. The risk level-based dam safety management assessment tool (D-SMART) is a technique that provides scientific, engineering and quantitative assessment standards. Additionally, this tool supports management of risks through analysis of entire systems affected by dams through increased safety concepts limited to structures.



Sewage Sector: Development of Sewage Treatment Diagnostics Program (Dr. Wastewater)

Since 2004, the K-water Research Institute has developed ‘Self-examination type sewage treatment facilities operation and management system: Dr. Wastewater’ is comprised with the ‘deductive examination technique’ and ‘core element technology’ that it has independently developed. Dr. Wastewater facilitates the TMS measurement figure as the data for processing the examination and problem solution for the first time in Korea and it enables the real time inflow water for characteristics analysis and discharged water quality forecasting.



Development of a Next Generation Water System to Enhance Global Competitiveness

K-water is currently developing micro-organism fuel cells (MFC)-based energy independent water treatment process, which is expected to lead sewage treatment processing "star-brand" technology. This technology can change the paradigm of water treatment process by simultaneously processing sewage water while generating energy, which can increase the energy efficiency at sewage water treatment plants that usually consume a lot of energy. Moreover, in order to build water supply system that is required by society of future, the company is building infrastructure technologies that can create a new market both in Korea and overseas by: creating a distributed water supply system with vertical water purification facility that can save energy used during water production and supply process and secure both safety of water quality and stability of water quantity; and developing manufacturing technology that can selectively enable water purification process according to water quality by taking quality of source water into account. In addition, in order to enhance operation and management of water pipe-line network, K-water is conducting government-sponsored researches to develop domestic production of core technologies needed to create intelligent water grid, such as smart-meter to conduct real-time monitoring, water quality sensor network and communication equipment, and high precision/multi-function monitoring equipment and operating system.



Challenges

Green Environment

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Countering Climate Change	54
Development of Eco-friendly Water Resources	56
Protection for Bio-diversity	58
Management of Tap Water Quality	60
Source Water Quality Improvement	62

Challenges

Green Management System

K-water is improving green management performance, reducing potential environmental risks and creating new environmental values by operating diverse green management programs.

Green Management System

Since K-water first received the Environmental Management System (ISO14001) certification in October 2002, it has recertified the global effectiveness its Environmental Management System every 3 years via certification renewals evaluation. ISO9001 & ISO14001 standards are reflected in K-water's corporate regulations and each department of the company conducts environmental impact evaluation, sets up environmental goals, performs environmental audit and environmental performance evaluation (EPE) according to environmental management work process stipulated in corporate regulations. In addition, in order to proactively respond to the changing external environment, the company became the first public company to adopt a national green management system that was established in 2010 pursuant to the "Frame Act of Low Carbon Green Growth" law, fulfilling its roles as a major green public company

that implements green new deal projects such as the Four Major Rivers Project and Gyeongin Ara Waterways project. In order to introduce a new system, the company underwent a revision process for its internal regulations such as quality/environment management regulation and established green management performance system. Also, for the green management system, professional auditors were trained and used to conduct a company-wide internal audit test every year. Through sophisticated and company-wide green management, the company is trying its best to enhance its capability as a sustainable green management company by taking advantage of the synergy effect with the existing environmental management system to secure global low-carbon competitiveness. Since 2011, it is applying ISO26000 check list in the sustainable management report and reporting the summary of 7 core items by subject to all stakeholders.

Green Management System and Program

145 points

2012 EPE Improvement Index

1,122 KRW billion

2012 Investment in Environment

Plan

- Green Management guideline /Implementation Act
- Establishment of green management targets
- Green management implementation plan
- Environment friendly design

Action

- Management Examination
- Global Reporting Initiative
- Correction/improvement of inappropriateness
- Communication among the stakeholders



Check

- Internal Audit/Post certificate audit
- Environmental Performance Evaluations (EPE)
- Government management evaluation/ internal evaluation
- Carbon Reduction Label

Do

- Green Management Target and Implementation Plans
- Environment friendly water resources development/control
- Clean energy production
- Green purchasing, environment accounting

Best Practice

Received "Innovation Management Award" in Sustainable Management Award

K-water successfully completed major national green new deal projects such as Gyeongin Ara Waterway and Four Major Rivers through innovative management. Based on such performance, it has established itself as a sustainable green company. With this award, the company has laid a foundation to become a global green company by reinforcing low-carbon green management in response to global climate changes and strengthen global competitiveness in water industry via realization of global standard green business practice.



ISO Internal Review

In accordance to ISO14001, KS I 7001 and corporate regulations, K-water holds an environmental audit every year for each business site to evaluate and improve the environmental management system. After an internal audit on the entire management process for all departments through the ISO dynamic cycle (P-D-C-A), an external certified institution carries out an overall audit on K-water's environmental management system. To internalize environmental management and strengthen internal management quality assurance competencies through a strategic audit of the overall environmental management system, 121 internationally certified ISO certification auditors were trained between 2007 and 2013. Through this, K-water was able to strengthen its internal assurance capabilities regarding ISO standards. In 2012, inappropriate practices and recommendations from the internal audit's post-audit for the green management system were reflected and reported to the management and proper measures and corrections were taken to prevent the unsuitable practices from reoccurring according to their priorities. In addition, in order to systematically manage company-wide corrections of inappropriate practices, the company established an ISO Review Information System and feedback system, thus reinforcing global working practice at ISO performance levels.

ISO Certification Training for Employees



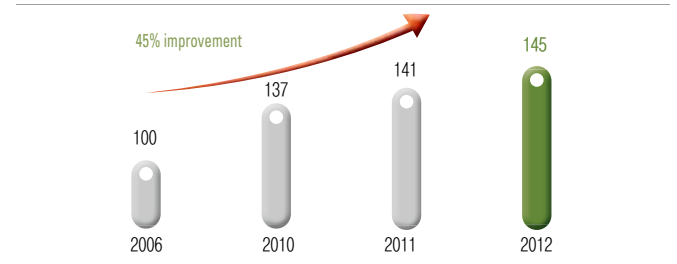
Environmental Performance Evaluations(EPE)

In 2003, K-water implemented the Environmental Performance Evaluation (EPE) program based on ISO14031, to carry-out regular measurements and a diagnosis on its environmental performance as part of its environmental management activities, and for systematic management through continuous improvements. The EPE electronic system was established and implemented in 2006. In January 2007, K-water was the first company domestically to acquire a patent for its EPE Electronic System. EPE Index was adopted to understand relative improved levels compared to that of the base(2006) year of environmental performances and is managed as the core index of the

corporation for medium and long-term strategic planning. The EPE Index score in 2012 was 145 points, an improvement of 45% from its base(2006) year in the environmental performance.

EPE Index

(Unit : points)



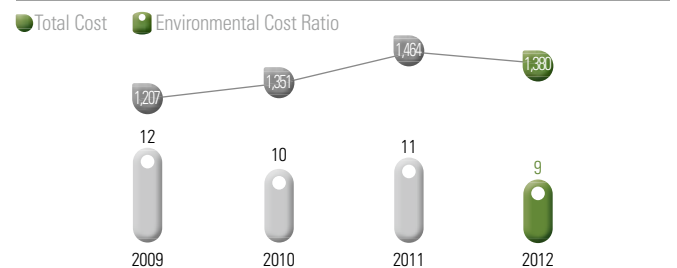
Calculation of Environmental Expenses

K-water adopted environmental accounting as a strategic tool to enhance environmental investment efficiencies and environmental performance by measuring the performance of the environmental management. By establishing eco-cost concepts & standards that are appropriate to K-water in 2000, environmental costs and investments are calculated annually. An electronic management accounting system is used to more systematically utilize environmental accounting results, enabling new environmental investment and capital budgets to be used in decision-making.

The environmental cost for 2012 was KRW 138 billion and the environmental investment was KRW 112.2 billion, an increase of 14.5% compared to the previous year. The cause of the increase in environmental investment was due to increased investment in water resources and complex development.

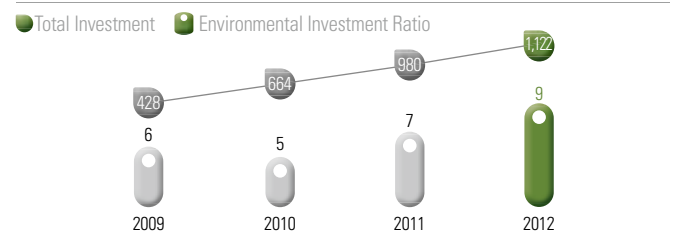
Total Cost / Environmental Cost Ratio

(Unit : KRW 100 million / %)



Total Investment / Environmental Investment Ratio

(Unit : KRW 100 million / %)



Green Network

K-water has enhanced the infrastructure of the entire supply network of K-water and realized the eco-friendly supply network to accomplish mutual growth with the stakeholder.

By managing its environmentally-friendly supply network for the entire supply network process from purchasing to wastes, which includes expanding green purchasing, supporting small & medium businesses' green management, carrying-out coexistent cooperation with construction companies, and supporting environment-friendly farming, K-water is seeking to achieve mutual growth with cooperative firms and local citizens.

Management of Eco-friendly Supply Network by Stakeholder



Green Purchasing

To strengthen its environmental management practices from production to consumption, K-water adopted green purchasing policies in 2002. Purchasing was strengthened by efficiently managing green purchasing. Green purchasing operating policies & the system are being improved through joint system operations with the Korea Environmental Industry & Technology Institute. Going a step further, by applying and managing environmentally-friendly products as part of the EPE System, K-water's 2012 green purchasing performance increased to KRW 18.9 billion, an increase in growth of 81% when compared to that of the previous year. Environmentally-friendly products include those with the Environment Mark or Energy Recycling Mark, and Environmental Labeling & Energy Efficiency Management Products. This is 81% of the compulsory purchase target for environmentally-friendly products which the Ministry of Environment established.

| K-water Green Purchases



Coexistence and Cooperation with Construction Companies

To establish and expand coexistent cooperative partnerships with the construction sector, a Coexistent Consultative Group consisting of construction organizations, principal business recipients and subcontractors has been formed.

In 2012, the company expanded its construction business in various areas such as dams, waterworks and complexes. Through the "Coexistence" program among various participants, the company provided support for training, finance and education, thus creating an environment for mutual growth and development.

Moreover, by regularly hosting workshops and field meetings, the company has made a place for communication and created a fair working condition for partners so that the economically disadvantaged companies in the construction industry do not suffer from unfair practices and receive fair returns for their work. K-water strives to develop a mutual and united construction culture among all partner companies.

Support for the Establishment of a Voluntary Environmental Management System of Suppliers and Partner Companies

Now corporate social responsibility is not just limited to the company alone. Responsibility has been extended to the entire life-cycle of production. Cooperative firms voluntarily participate in environmental management and

the establishment of the clean production system helps strengthen small & medium businesses environmental management capabilities. At the end, it can also strengthen K-water's competitiveness.

K-water also provides diverse environmental management programs to cooperative firms (small & medium enterprises) that lack the personnel, information and infrastructure to help them develop into environmentally-friendly corporations. The programs include environmental management training to help establish ISO14001, environment management technology support service, certification auditing, certification expense & post-management expense support. Through this, K-water was able to establish a coexistent green partnership, enabling the provision of environmentally-friendly products and services. Each of the cooperative companies structures the tailored environment management system for each company through the environment management support business along with the diverse business performances in a structuring law complying process, securing crisis management responding capabilities, structuring environment management infrastructure, environmentally-friendly products and service enhancement, structuring VOC management, structuring of clean production, and the consumption system. It is expected to lead to diverse environment management benefits in improving corporate productivity, sales increase through customer satisfaction enhancement, cost savings through environment cost reduction and others. The company has completed environment management system certification for 12 companies in 2012 and is currently supporting 5 companies for environmental management system

certification and 6 companies for post-management certification in 2013. K-water plans to complete its social contribution with cooperative companies through structuring the environmentally-friendly supply network with cooperative companies as well as structuring its overall environment capability in the industry. K-water plans to expand the environment management program on structuring the environment management system for ISO14001, Carbon Reduction Label Certificate System, introduction of green purchasing, and publication of sustainable management report. And it further plans to strengthen even more for corporate environment soundness by undertaking the corporate social contribution together with cooperative companies through securing the green growth foundation on an entire supply network and the completion of an environmentally-friendly network.

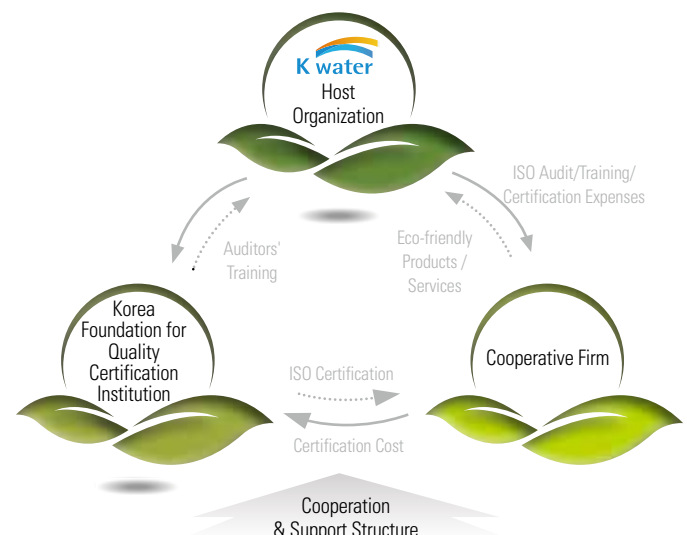


▲ 2013 Small & Medium Businesses Green Partnership Agreement

| K-water Eco-friendly Supply Network Master Plan



| S&M Businesses Green Management Implementation System



Countering Climate Change

K-water is leading the way in low carbon green growth by actively participating in the efforts made by the international community for reducing global greenhouse gases to counter climate change.

Enhancement of Technologies for Managing Water to Counter Climate Change

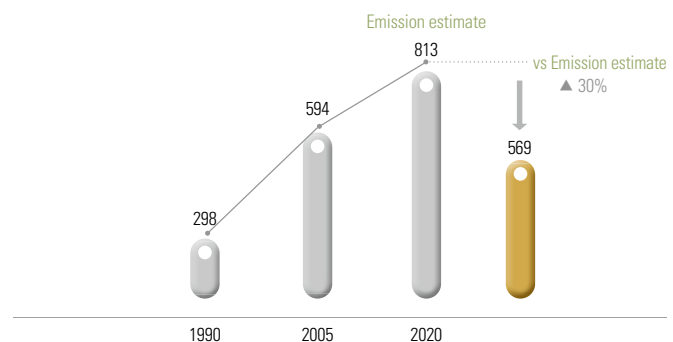
Following the prospect of global warming acceleration by the inter-government bodies on climate change, IPCC (Intergovernmental Panel on Climate Change), and other international organizations, response to climate change has emerged as the priority agenda of the international community. For joining the effort to respond to world-wide climate changes and realize green growth, the government has completed a comprehensive plan for responding to climate change in September 2008 and K-water has established the strategy master plan in December 2009 to respond to the climate change crisis and convert it as an opportunity to generate a new growth engine. K-water is also working on providing a stable water supply to respond to climate changes. The company established a stabilization plan for waterworks in 2011 and implemented facilities repairs for those vulnerable to damage, expansion of emergency water supply system and renovating old water pipes, thus reinforcing stability in water supply system in 2012. Also, through KRM (K-water Risk Management) and WSP (Water Safety Plan), the company is enhancing accident prevention and risk management system in waterworks operation. Moreover, the company was able to prevent KRW 62.6 billion in damage by supplying emergency water through multi-regional waterworks to industrial companies facing operation halt and agricultural lands in drought affected areas. As Korea's number 1 new & renewable energy producer, the company is providing diverse forms of energy such as hydropower, wind power, tidal power and floating solar generated power while developing relevant technologies to make contributions to the nation's ability to respond to climate changes.

Systematic Efforts for Reducing Greenhouse Gases

In order to respond to global climate changes, the government has established a national reduction goal of 30% vs 2020 BAU (Business As Usual, estimated emission volume). As part of the policy implementation measure, the government has created a greenhouse gas objective management system and carbon emission trading system. K-water was designated as a company to be managed by the Green House Gas Energy Target Management System and is currently following the target management system. K-water has

made statements of its greenhouse gas emissions from 2007 to 2012 on the greenhouse gas inventory system, which is certified by a world-renowned accreditation agency, Det Norske Veritas(DNV), Norway. The company has worked on greenhouse gas reduction to achieve the objectives allocated by the government in 2012 while reinforcing the foundation for carbon management by training responsible staff.

| National Greenhouse gas Reduction Objective



In addition, in order to reduce energy consumption in water business areas that have high electricity use, the company has developed a mid- to long-term road-map and is making efforts to reduce greenhouse gases for sustained reduction in energy use. As a result, K-water was able to achieve its 2012 greenhouse gas reduction objective (allowed emission quantity of 645,215 tons CO₂, emission output of 585,383 tons of CO₂). In 2013, it has created an implementation report and submitted it to the government. Moreover, the company was given credits for greenhouse gas reduction efforts it has made from the past and as a result received early reduction performance credits of 55,174 ton CO₂ for Yongdam and Daegok dam hydropower plant businesses. The company is building a target management system strategy to reduce greenhouse gases in sustained responses to on-going climate changes.

| Achieving 2012 Reduction Goal

(Unit : ton CO₂)

Category	2012 Estimated Emission (Consumption Quantity)	2012 Allowed Emission (Consumption Quantity)	2012 Emission Performance (Consumption Quantity)
Greenhouse Gas (ton CO ₂)	662,114	645,215	585,383

| K-water's Response to Greenhouse Target Management System



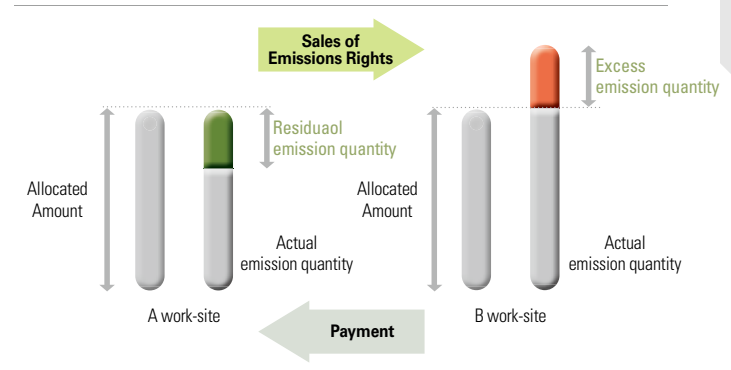
K-water, for voluntary greenhouse gas reduction in work-sites, signed an agreement to have a pilot trading for emission rights with Korean Energy Management Company in February(2011), which it began in 2011. In 2012, the company expanded the trading site to the entire business and began trading in conjunction with the greenhouse gas target management system. This has become a foundation for K-water to achieve in 2012 greenhouse gas reduction objective. The emission trading system has helped to form support for greenhouse gas reduction efforts from all employees and played a critical role to strengthen the foundation for carbon management.

As "Regulations on Greenhouse Gas Emission Rights Allocation and Trading" was created in May, 2012, emission rights trading is expected to be implemented beginning in 2015. In order to efficiently respond to emission trading rights, K-water has been making efforts such as attending various workshops and seminars to study the emission trading system and making suggestions for good operation. In addition, the company will participate in the integrated pilot project for the emission trading system proposed by the Ministry of Environment in 2013, in which it plans to gain deeper understanding of the operation and of emission trading system.

The total amount of greenhouse gas emissions in 2012 was 585,383 tons CO₂, 6.2% increase from the previous year. The increase is due to an increase in water supply and electricity use as a result of operating Gyeongin Ara Waterworks and expanded facilities associated with the Four Major Rivers. Direct greenhouse gas discharge volume from the use of gasoline, gas and others is 4,349 ton CO₂, and the indirect greenhouse gas discharge volume from the use of electricity and others is 581,034 ton CO₂. The major source of greenhouse gas for K-water comes from indirect use of energy to maintain operation of water facilities. The company uses

the EPE system and inventory system to constantly monitor greenhouse gas emission volumes due to energy use. In addition, beginning in January, 2013, the company started operating the inventory system and FMS (integrated financial information system) to manage energy use from the accounting process level, which improved objectivity and reliability of the data and enhanced timely use of information. In the water business area, which is a major source of greenhouse gas emission for K-water, the company is strictly maintaining sources of electricity in order to supply water in energy effective ways. Moreover, in September 2012, the company has established a mid- to long-term road-map for energy savings in water facilities and implementing 5 major issues in energy savings such as optimal operation of reservoir-pump operation, replacement of performance-resistant pumps and application of high efficiency equipment and facilities.

| Emission Rights Trading System



Challenges

Development of Eco-friendly Water Resources

K-water is making efforts to create environmentally sound and sustainable development (ESSD) by establishing a plan to minimize environmental impact after researching, predicting and assessing environmental impact in the early stage of water resources projects and accommodating the opinions of local residents and pertinent organizations.

For environment-friendly development of dam construction, the basic direction of K-water is to implement conservation-balanced development that takes into account preservation and restoration of surrounding ecology and social, cultural and historical uniqueness of the area to be developed by adopting environment-friendly techniques throughout the entire project cycle ranging from design to construction and management stages.

Development of Water Resources Harmonizing with the Environment



Implementation of the Environment Impact Assessment as a New Project

K-water is implementing the Environment Impact Assessment by phase, such as the administration planning, development planning, and implementation planning, in order to prevent environmental impacts in advance that can occur during the implementation of new water resources projects. In 2012, the company has conducted the environmental impact assessment for long-term dam construction plans, flood control capacity increase for Pyeonghwa Dam and Unmun Dam, housing relocation projects at Hantan River Dam and military site relocation projects.

Procedures for Environmental Assessment for Water Resources Development Projects



Environmental impact reduction plan for construction business

In order to minimize various environmental impacts such as air pollution, water pollution, noise/vibrations and etc. that occur at construction sites, K-water has developed and introduced an environmental impact reduction plan for construction business. The company requires car washing facilities and anti-dust nets to prevent scattered dust, installing a Sile protector and sand basin to prevent polluted water and installation of sound-proof panels to minimize noise and vibration from construction equipment. Moreover, it is building ecology preservation facilities such as ecological pathways and alternative habitats in order to relieve disconnect between residential communities and ecology.

prevent air pollution



▲ Car washing facility

Prevent water pollution



▲ Sile protector and sand basin

Prevent noise/vibration



▲ Sound-proof panel

Ecology conservation



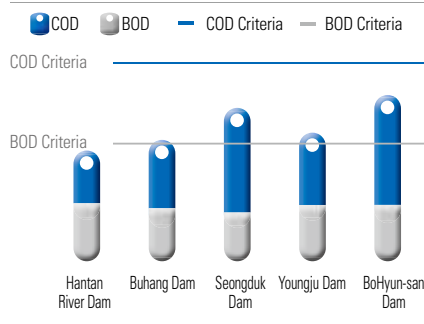
▲ Ecological pathway

Post-Investigation of Environmental Impact

Post-Investigation of Environmental Impact is an environmental monitoring system to minimize harmful environmental impacts. It monitors environmental impacts that could be generated during the project and helps to establish an additional environmental impact reduction plan for occurrence of unexpected environmental impacts. In 2012, K-water conducted post-investigation of environmental impacts for water resource development projects and as a result, all environmental standards were satisfied at the work sites.

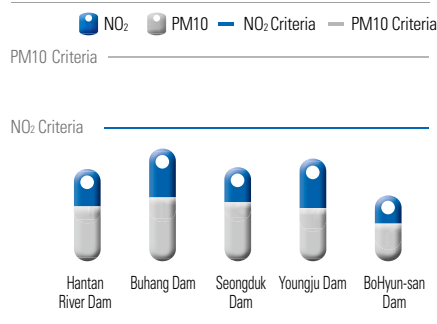
| Water Quality Management

(Unit : mg / L)



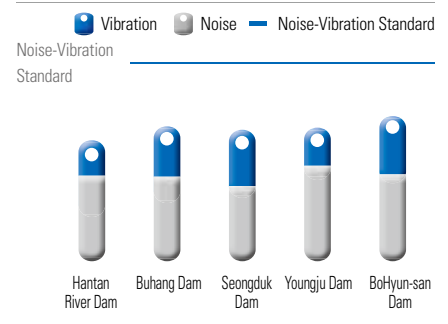
| Atmospheric Management

(Unit : PM10 $\mu\text{g}/\text{m}^3$ / NO₂ ppm)



| Noise/Vibration Management

(Unit : noise dB(A) / vibration dB(V))



Constructing waterfront ecological spaces

Local ecology, culture and history around the dam areas are reflected in the construction of spaces for local tourism and economic activities. It is contributing to expanded opportunities for local residents to enjoy leisure and improving the quality of life of all citizens.

| Constructing waterfront ecology space status

Category	Design Concept	Facility
Gunnam Dam	Crane's Love and Peace	Crane Theme Park
Bohunsan Dam	Shooting Star Along Bohunsan Mountain	Astronomic observatory-related study space
Youngju Dam	Naeseongchun Sand and Seonbi Culture	Space for culture and experience in collaboration with Sosoo Seowon
Buhang Dam	Reflect local legend (Halmi-bawai Rock)	Nature an ecology hiking road
Seongduk Dam	Cheongsong Pine Tree and Convalescence	Pine tree forest and forest bath place



▲ Doorumi Theme Park(Gunnam Dam)



▲ Astronomy Study Space(Bohunsan Dam)



▲ Nature and Ecology Hiking Path(Buhang Dam)



▲ Pine tree forest bath place(Seongduk Dam)

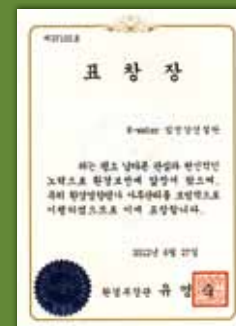
Best Practice

Selected as the Best Work Site in 2012 The 1st Construction

Environment Management Prize, Ministry of Environment

The company has been selected as the Best Work Site for its efforts in and contributions to sustainable ecological conservation, such as the doorumi (crane, endangered species) protection plan, in environmental management evaluation based on 1,400 construction sites.

Category	Period	Description
Feeding cranes	'08~'12 years	Total of 60 times, supplied 27,966 kg.
Building feeding ground	'09~'12 years	Yulmu and agricultural lands(711,000m ²)
Building habitats	'10~'11 years	3 places(114,000m ²)
Ice-prevention measures for habitats	'12 years	Crane habitats and 2 other habitats

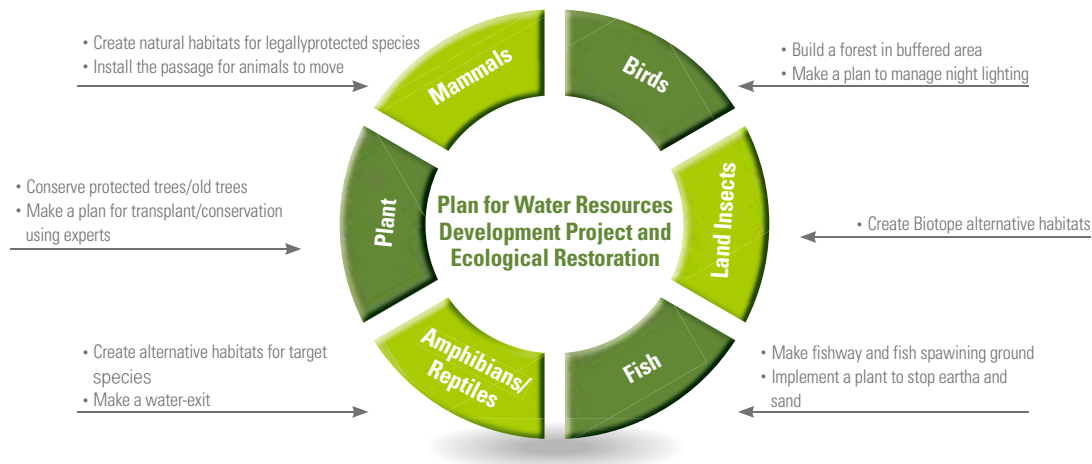


Challenges

Protection for Bio-diversity

K-water is doing its best to minimize changes in the ecological environment and maintain a healthy ecosystem where nature and mankind can coexist through environment-friendly green development.

K-water is implementing various projects for restoring the ecology to protect the habitats environment for animals and plants, such as minimizing environment impacts that can be caused by the implementation of projects, and restoring the damaged ecological environment.

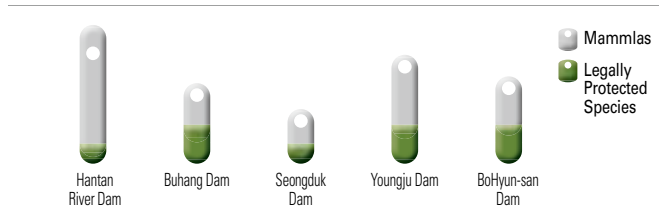


Monitoring for Ecological Environment

K-water is regularly monitoring the current status of the habitats for animals and plants, such as birds, mammals, amphibians and reptiles, insects, benthic invertebrates and plankton, to inspect changes in the ecological environment. According to the research on ecological conditions in the areas near dams, various living creatures were discovered living in the areas: 8 to 17 species of mammals, 15 to 38 species of fish, 33 to 65 species of birds, and 10 to 26 species of amphibians and reptiles.

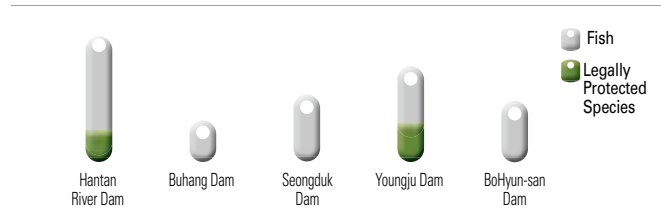
| 2012 Mammla Research Result

(Unit : Types)



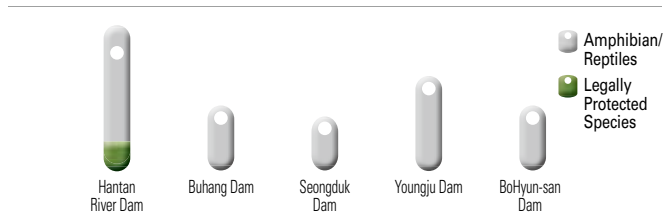
| 2012 Fish Research Result

(Unit : Types)



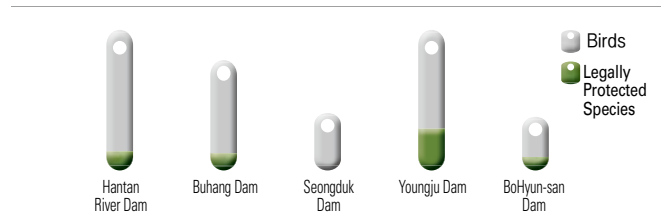
| 2012 Amphibian/Reptile Research Result

(Unit : Types)



| 2012 Bird Research Result

(Unit : Types)



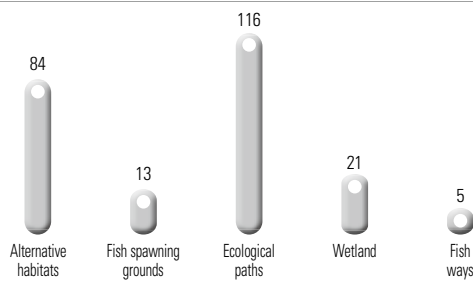
Also, K-water has been implementing investigation on the ecological environment in the areas near major dams, which are managed by K-water, regularly every 10 years to collect data about the current status of species including protected species. It uses the data as basic information for establishing a plan to restore the ecology.

The Current Status of the Ecology Restoration Project

K-water has installed various ecological restoration facilities to protect habitats for major species such as mammals, insects, amphibians and reptiles and birds. It focuses on installing ecological passages designed to construct habitats for legally protected species such as otters and prevent ecological collapse. Based on geographical characteristics, the company has also installed fishways and fish spawning areas to protect fish resources. The company has installed a total of 99 ecological restoration facilities by 2012 and plans to install more according to plan until 2014.

Installation Plan for Ecological Restoration

(Unit : Places)



Creating Ecological Conservation Place



▲ Gunwi Dam Alternative Habitat



▲ Gunwi Dam Fish Spawning Ground



▲ Gunwi Dam Ecological Path



▲ Gunnam Dam Fishway

Results of the Research on Species in Danger of Extinction Around Major Dams

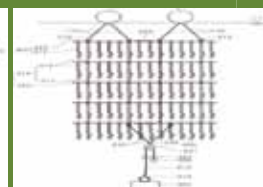
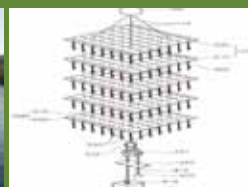
Category	Rare and endangered species	Investing year
Soyang Dam	Siniperca scherzeri (golden freshwater mandarin fish) & 3 other Fish Species, Paeonia obovata Maxim (Obovata) & 2 other Plant Species, Short-tailed Viper Snake & 3 other amphibian & mammals, leopard cat & 7 mammal	2012
Namgang Dam	Anax nigrofasciatus nigrofasciatus & 2 other Insect Species, Pseudobagrus brevicaudus & 1 other Fish Species, Otter, Common Kestrel & 1 other Bird Species	2002
Chungju Dam	Crassirhizoma & 4 other Plant Species, Shorttailed Viper Snake & 1 other amphibian & reptilia, Siberian Flying Squirrel & 2 other mammals	2004
Juam Dam	Reeve's Turtle & 5 other amphibian & reptilia, Yellow-throated Marten & 3 other mammals	2004
Andong Dam	Korean Rat Snake, Siberian Flying Squirrel & 4 other mammals, Common Kestrel & 2 other Bird Species	2003
Imha Dam	Reeve's Turtle, Leopard Cat & 3 other mammals, Mandarin Duck & 4 other Bird Species	2003
Boryeong Dam	Otter & 1 other mammal, Chinese Sparrow Hawk & 4 other Bird Species	2006
Buan Dam	Otter, Cobitis koreensis pumilus, Korean Rat Snake, Narrow-mouth Frog & 1 other amphibian, Common Buzzard & 4 other Bird Species	2006
Daechong Dam	Mandarin Duck & 10 other Bird Species, Otter & 1 other mammal	2005
Hapcheon Dam	Sparrow Hawk(Accipiter nisus), Mandarin Duck, Leopard Cat & 2 other mammals	2005
Yongdam Dam	Otter, Mandarin Duck & 5 other Bird Species, Pseudopungtungia nigra & 4 other Fish Species, Goodyera schlechtendalia & 3 other Plant Species, Korean Rat Snake & 1 other amphibian & reptilian	2011
Seomjingang Dam	Acheilognathus somjinensis, Far-eastern Brook Lamprey, Microphysogobio koreensis (3 Fish Species), Otter, Leopard Cat (2 Mammals), Lilium distichum (Kochang Lily) (Total 10 Plant Species)	2010
Unmun Dam	Otter, Leopard Cat, Mandarin Duck, Northern Goshawk, Golden Eagle, Pied harrier, Cinnib Jestreok	2010
Hoengseong Dam	Otter, Leopard Cat, Eurasian Buzzard, Striated Bittern, Long-Billed Ring Plover, Osprey, Hen Harrier	2011
Milyang Dam	Milk vetch root & 4 other plants, Otter & 3 other mammal, Cinereous vulture & 5 other birds	2009

※ After dam construction, changes in ecological environment were comprehensively and continuously researched (10 year interval) and the results were used as basic data for developing environment-friendly water resources management

Best Practice

Development of K-water's Floating Fish Spawning Ground

The existing fish spawning ground offers spawning space only near the water's surface area and makes it difficult for deep fish water to access. The new system improves on the weakness of the existing system and developed apartment structure type fish spawning ground. In 2012, the system was first introduced in Andong-Imha dam bridging business. Its effectiveness is being studied and will be applied to new projects in the future.



Challenges

Management of Tap Water Quality

K-water has gained trust from the public by providing high quality tap-water through advanced water quality management, such as the expanding advanced water treatment processes and lowering the carbon level at all offices.

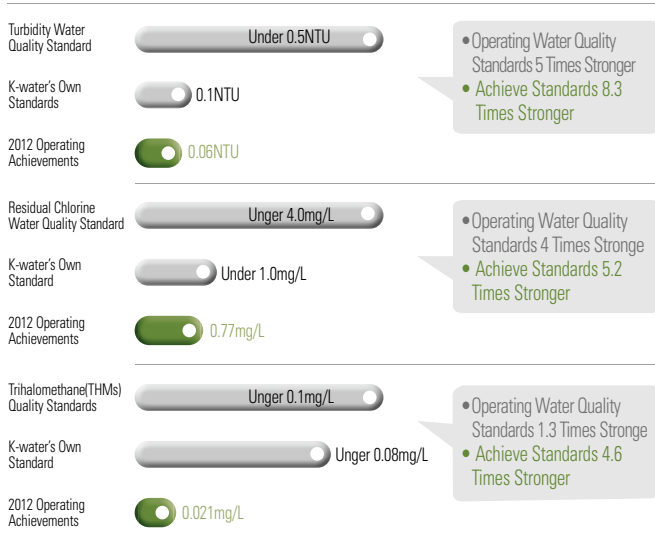
An effort to produce and supply the world's best quality tap water

As people suffered various water pollution problems as a result of industrialization and urbanization, they became increasingly distrustful of the quality of tap water. Also, with a rise in standard of living, the expectation for quality of the tap water is now even exceeding that of advanced countries. K-water is making various efforts to satisfy people's expectation for the quality of tap water and supply tap water with the quality equivalent to that of the advanced countries.

In order to systematically maintain high water quality, K-water has introduced and is running K-water QPI, the company's water quality grade assessment system that requires higher quality water than legally authorized level. The results of evaluation is then passed on to the filtration plant and used to promote facility enhancement and operational efficiency to improve water quality. In addition, the company has introduced advanced filtration process such as ozone and activated carbon filtration process that can remove bad tasting/odored materials, as infection by-product residues and toxic materials in small amount that could not be removed in the existing filtration process. The system was installed in 8 filtration plants (Bansong, Goryeong, Banwol, Goyang, Gongju, Geumsan, Yeoncho and Seongnam) by 2012 and will be installed in a total of 14 filtration plants by 2015. As a result of such efforts, K-water is able

| The Effect of Tap Water Quality Enhancement

(Unit : Places)



| Status on Introduction of Advanced Filtration Plants

(Unit : Places)

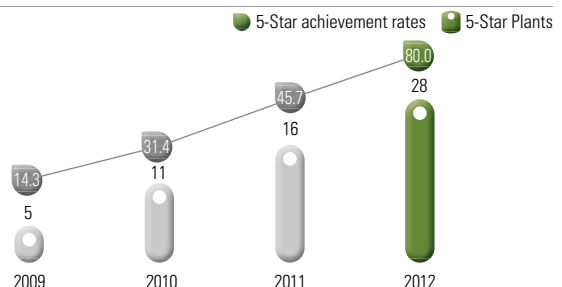


▲ Korea's first filtration process plant (Gongju Filtration Plant)

to apply the world's strictest water quality standard "Global Water Standard" to all filtration plants it is currently operating. In 2012, the company achieved 99.96% (total counts of satisfactory pass/total test counts) in global water quality standard, proving that the water produced by K-water has the world's best quality. In addition, the company received "5-star" grade in filtration operation capability evaluation program hosted by AWWA of the United States, where the 5-star grade means the highest quality water, an international recognition for K-water's outstanding water quality. In 2012, K-water's water achieved "5-star" grade in 28 filtration plants it runs.

| Status on 5-Star Grade Achievement

(Unit : % / Places)



Furthermore, the tap water from Milyang and Cheongju plants, for the first time in Korea, participated in 2011 and 2012 "The Berkeley Spring international water Tasting" and competed against tap water suppliers from 32 countries including US and Canada and were selected as Top 10 water (Top 10 in 2011 and Top 7 in 2012) for 2 consecutive years. It was another proof for outstanding quality of tap water produced by K-water.

※ Global Water Quality Standard

K-water's world's highest level in-house criteria for water quality based on the set of strictest criteria for WHO and other OECD countries (US, Japan, EU, Australia) for domestic water quality standard (57)

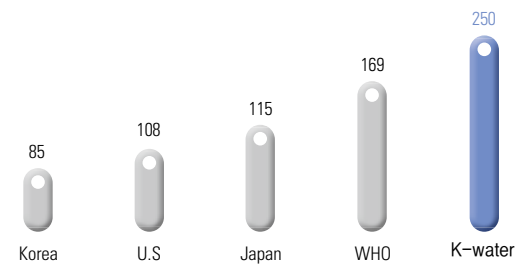
An effort to enhance customer's trust in tap water by letting them experience the water

K-water is making efforts to systematically improve people's trust in tap

water quality by identifying the causes of mistrust and plans to correct them. In order to remove the biggest reason for not drinking tap water, the problem of "Unsure but anxious", the company has introduced a project to encourage apartment residents to drink tap water, tap water quality verification system and etc. In "tap water drinking apartment" project introduced in 15 places by 2012 (15 apartment complex, 8,298 households), tap water drinking rate, the major index of customer's trust level, improved by 15.3%. Moreover, in order to monitor various harmful substances that could be contained in tap water, the company is testing 250 water quality items, which far exceeds the 81 items required by law and greater than WHO's requirement of 169. Finally, the company provides real-time Internet updates on comprehensive water quality information throughout the entire production and supply process (164 locations), which is giving customers more confidence in tap water quality.

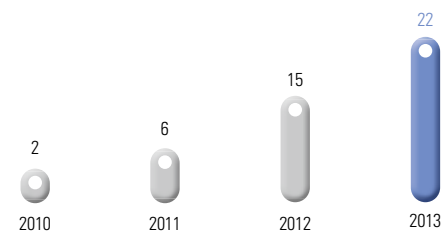
| Status on Water Quality Test Items by Country

(Unit : items)



| Status on apartments using tap water as drinking water (accumulative)

(Unit : % / Places)



Reason for not drinking tap water

- Unsure but anxious (31.9%), Old water tank or pipe(18.3%),
- Odor smell or taste (15.0%), Water source contamination (14.6%),
- Rust water and foreign materials (10.2%), Others or no responses (10.0%)



Ways to improve customers' trust on water

- Project that encourages apartment residents to drink tap water, Operate tap water quality verification system,
- Provide quick water quality information, Increase the number of times of water quality analysis
- Rehabilitation of aged water pipe

Best Practice

Building a real-time odor analysis system for tap water

Due to recent climate and environmental changes that is increasing frequency and intensity of algae odor, there is an increasingly more chance of water developing odor. K-water, in order to enhance an ability to respond to occurrence of algae odor, has improved/combined two existing water quality analysis machines and developed a real-time odor analysis system, which it is currently running. The machine uses this system to effectively monitor and detect occurrence of algae odor and provide effective responses through water purification treatment system so that consumers can drink tap water free of odor. Also, the system was patented in December 2012, an acknowledgement of its excellence in performance.

Water Source



Dearerator



Adhesive Concentrator



Gas-chromatography

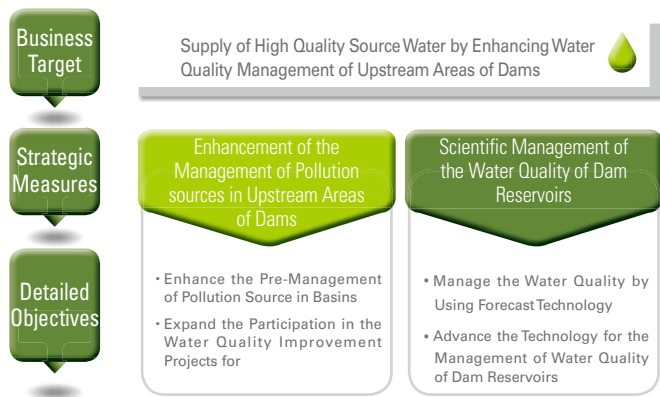


K-water

Source Water Quality Improvement

The supplying of clean tap water starts from completely managing the quality of source water. K-water is supplying the high quality of source water through the scientific management of dams and basins.

| Implementation System for Water Quality Management of Dams and Basins



Enhancement of the Management of Pollution Sources in Upstream Areas of Dams

The recent climate change due to abnormal climate activities have caused huge amounts of soil and floating materials to flow into dams for prolonged periods of time. To overcome the limitations in the management of water quality and post-respons to water quality problems, K-water is implementing pre-inspection and preventive measures on sources of turbid water and floating materials in cooperation with related organizations, and is also pushing ahead with the establishment of comprehensive measures for preventing turbid water in the basins along the five major rivers as a fundamental policy. Also, it has founded the efficient system for inspecting and managing of pollution through the establishment of the Management System of Information on sources, which is based on IT and GIS.

Expansion in the Participation of Water Quality Improvement Projects for Upstream Areas of Dams

K-water has made great efforts to reduce non-point pollution sources in upstream areas of dams, such as participating in the national project for managing water quality in basins and creating an ecological wetland in Daecheong Lake So-ok Stream. K-water has also implemented integrated

management of water quality to protect against pollution sources. In basins of dams, such as domestic sewage and livestock waste water, six basic environmental facilities were constructed in upstream areas of dams as well as operating and managing 113 basic environmental facilities.

Advancements in the Technology for Water Quality Management of Dam Reservoirs

For the management of dam reservoir water quality, scientific forecasts of future water quality are required. However, since dam reservoirs are huge, stay for a long time of period, and involve diverse factors, including seasons and weather, it is difficult to understand the cause and effect relation within water quality changes. An alternative method to overcome the limitation is a water quality forecasting method through modeling, so K-water has adopted the three dimensional forecasting technology, which is a more advanced technology than the two dimensional technology to make more reasonable decisions and apply better technologies. Thus, K-water applied the technology to 10 dams in 2012, following the first pilot application in 2009, and it will be gradually expanded to apply to all dams.

Adoption and Application of Efficient Technology for Controlling Algal Blooms

In general, algae blooms occur in eutrophic reservoirs and rivers in summer, and it causes water pollution and hinders the process of water purification. K-water is operating various water quality improvement facilities, such as layers of preventing the inflow of algae, water circulation systems (aeration facilities) and selective intake equipment to efficiently control algae. It has implemented various researches for the analysis of effects and the establishment of operation guidelines. In particular, in 2012, it successfully developed a sophisticated technology that can monitor the current status of pollution sources areas Nakdong River basin and streams so that changes in pollution sources can be analyzed and predicted.



Challenges

Green Society

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Respecting Human Rights and Diversity

K-water is taking the lead in protecting human rights & interests by protecting social minorities and respecting diversity

Efforts to Protect Human Rights

K-water is protecting the rights of minorities while implementing policies to resolve difficulties faced by employees & executives. Diverse policies, including programs to expand employment opportunities, maintain gender equality and protect workers during pregnancies are being initiated to protect the rights of minorities, including individuals with disabilities, female employees and contract workers. A Gender Equality Department has been established by the labor union, which has strived to provide the same benefits to contract workers as offered for regular employees. Human rights training courses are being offered to ensure the rights of minorities. The training courses mainly consist of company-wide sexual harassment prevention training and personal information protection training courses. In the future, human rights training courses will be expanded to cover a wider-range of subject topics. In addition, guaranteed rights to form collective agreements and initiate collective bargaining prevent all possibilities of rights being infringed upon at any of K-water's work-sites.

Achieving Gender Equality

Since the announcement of Gender Equality regulations in 2004, discriminatory factors in employment and promotion of female employees have been eliminated. Counseling for female employees facing problems has been actively promoted while gender equality programs have been implemented by actively managing and supporting the female workforce through strengthened maternity protection. Basic salaries are the same for male and female employees in similar positions and for those that entered the company in the same year. Promotions and compensations are also being equally provided to both male and female employees.

As of December 2012, there were 486 female employees, comprising 11.2% of the total work force. The number of female managers continues to grow in numbers, having reached 38 in 2012. The ratio of female employment in 2012 comprised 18.0% of all employment.(40 out of 222 in 2012)

In accordance with article 17 of the Framework Act on Women's Development and Enforcement Ordinance Article 27-2 of the same act, a sexual harassment prevention training program is held once a year with results being reported to the Ministry of Gender Equality and Family.

In order to create a healthy and great work place with gender equality through prevention of sexual harassment, each department has one resident sexual harassment prevention employee.

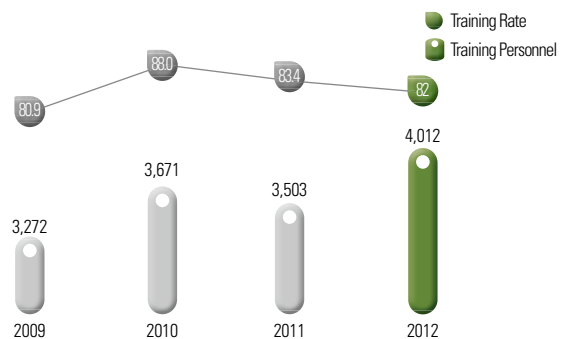
| Employment Conditions

(Unit : People)



| Sexual Harassment Prevention Training

(Unit : % / People)

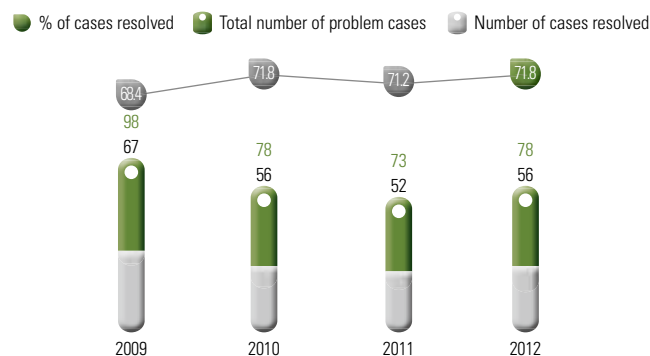


Resolving Employee Problems and Difficulties

A permanent counseling window is being operated within HR-BANK (Integrated HR Management System) to assist in resolving problems and difficulties faced by employees. In 2012, a total of 56 problem cases were resolved through online and face-to-face consultations. Unresolved cases are continuously monitored for resolution at a later date.

Employee Problem Resolution

(Unit : % / Cases)



Strengthening Personal Privacy Security

K-water established infrastructures and regularly holds information security enhancement training courses to protect personal privacy and information. Collection of personal information for information services offered by K-water is minimal. Particularly, the company website utilizes I-PIN (Internet Personal Identification Number) rather than the personal registration number, helping further protect personal privacy while personal information is systematically managed by establishing personal information protection standards. To emphasize the importance of personal privacy and the severity of potential damages, we have shared cases of information leakages and infringements of personal privacy. Additionally, we are regularly offering prevention training for newly entering employees, information security personnel, and employees of cooperating companies.

At the same time, we have been operating the K-water Cyber Security Center 24 hours a day in connection with the National Cyber Safety Center as a means to protect government infrastructures and personal information from potential cyber attacks. By encrypting personal information of customers, K-water is doing its utmost for the protection of personal privacy.

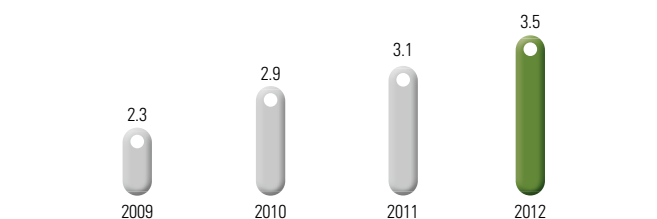
Increasing Employment Opportunities for the Socially-Disadvantaged

K-water has introduced and operates a policy that provides additional points for people with disabilities upon hiring employees. In regards to testing, depending on the level of the disability, an additional 3~5% points are added to applicants with disabilities. A supplement in the form of 70% of basic salaries is offered even for employees that become disabled after entering the company.

For registered disabled individuals, 3 days of paid leave and gifts of encouragement are provided around Disability People's Day. Various convenience facilities have been installed, including designated parking zones, elevators, restrooms, stairways and roadways. The disabled employment rate was 3.5% (158 employees) in 2012, over the legally set employment rate of 3.0%.

Annual Disabled Employment

(Unit : %)



Maternity Protection Program

Breast feeding and female employee rest areas have been installed within the head office while a corporate child care center has been established to provide assistance for female employees. In order to help relieve the pressures of child care and create a balance between work and family life, K-water is operating child care facilities needed by employees. In addition, we are operating a variety of maternity protection programs, such as the child care temporary leave and selective child care work time reduction policy. We have also been operating maternity protection programs, such as providing breast pumps for employees who are breast feeding.

- ▶ In-Company Child Care Center: Water Love Children's House
- ▶ Family Day Designated Every Week Wednesday
- ▶ Joint Spouse Leave of Absence Policy
 - Conditions for Leave: When spouse is working overseas, training, or on leave for over 1 year
 - Leave of Absence: Once, Three Years
- ▶ Improved Childcare Leave of Absence Policy
 - For employees with children under 8 years of age (For children in school, those under 2nd grade in elementary school)
- ▶ Childbirth Encouragement Assistance
 - Payment of Childbirth Encouragement Assistance, Work Circulation Exceptions for Pregnant Employees
 - Breast Feeding Facilities, Parking spots designated for pregnant women
 - Increase Miscarriage / Stillbirth Leave Days: Provide sufficient time to recover physically/mentally

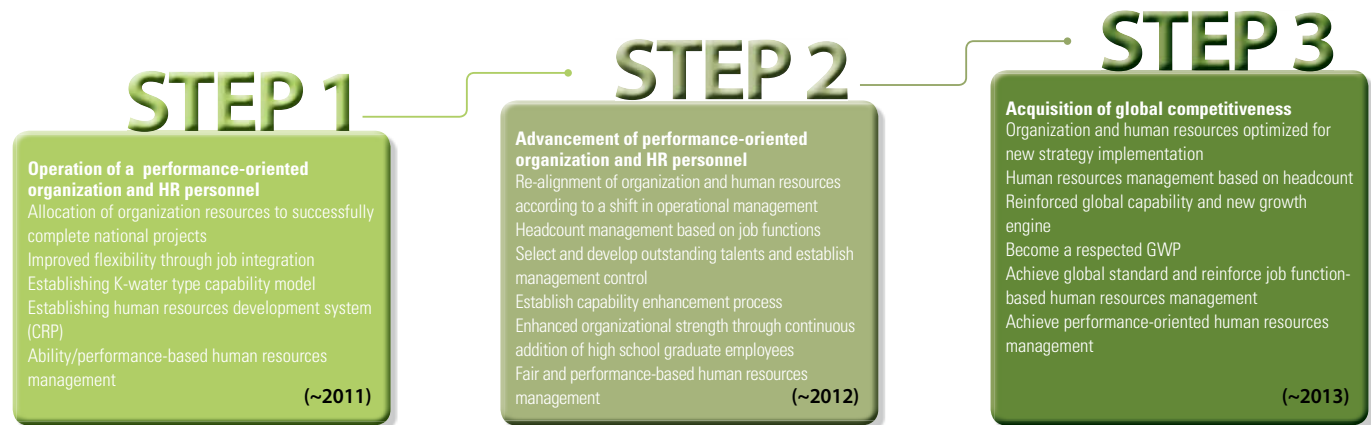
Challenges

Fostering Global Human Resources

K-water is cultivating global human resources by concentrating our corporate-level competencies in order to become the world's best water service provider.

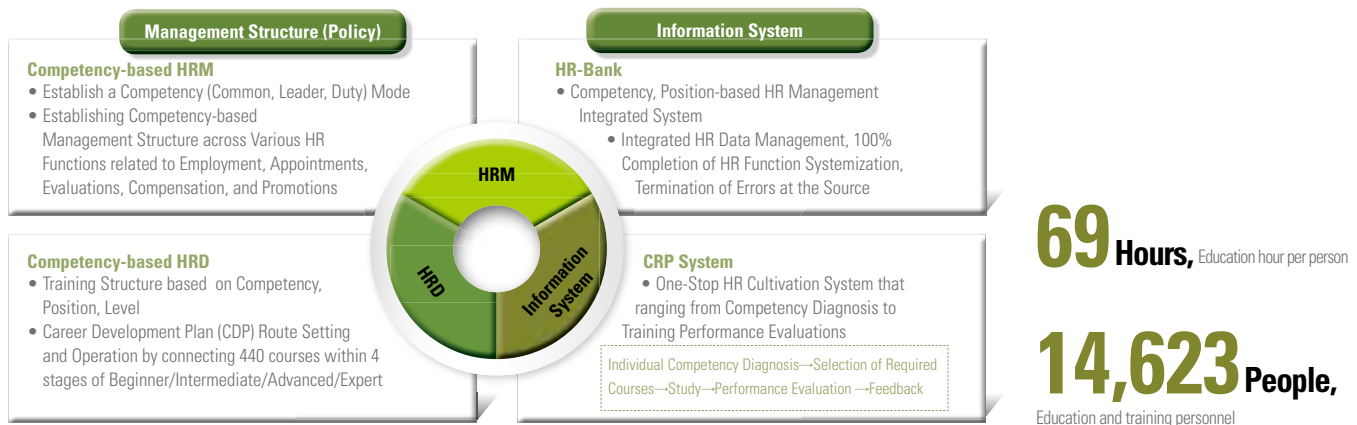
Global Human Resources Fostering Roadmap

As K-water's key partner in achieving set visions and strategies, all HR functions are aligned based on competencies and performance. For such to occur, we have secured global competitiveness of personnel and HR resources.



Competency-based HR Management & Information System

K-water has established a competency (Common, Leader, Position) model to manage HR personnel based on competence. By identifying capacities required to achieve the desired performance, we are operating a competency-oriented educational training system that can improve individuals above their current performance level. Such HR personnel management is managed through the HR-Bank (Integrated Human Resources Management System), in turn, fundamentally preventing errors by systemizing and operating 100% of all functions through the system.



Ability & Performance-based Compensation & HR Personnel Management

The monthly salary of new employees is set at 213% of the minimum wage in accordance with the public corporation advancement policies of the Government. All employees and executives are subject to regular performance evaluations. In the case of executives, compensation is based on performance in accordance with

the management contract signed with the President. As the executives are paid annual salaries, level 1 and 2 employees receive compensations based on the results of division evaluations, department evaluations, and individual MBO (Management by Objectives) results. For general employees who are level 3 or below, compensations are based on the results of division evaluations, department evaluations and team evaluations. Such compensations are based on performance to motivate employees to strengthen capabilities while fostering a performance and competence based organizational culture. In addition, we have implemented a policy that allows administrative and technical employees to exchange functions to provide opportunities to develop one's capacities through experiencing various work functions. At the same time, various awards for outstanding results, model employees, outstanding proposals, etc. have served to maximize operational focus.

Employee Career Development

Since 2003, K-water has developed and operated a CRP (Competency Reinforcement Plan) system to help employees & executives in their career development. The CRP system assists in providing a balanced career development plan by appropriately reflecting organizational and individual needs. From 2010, occupational limits on educational/training curriculums were eliminated in order to widen the selection of educational/training opportunities for employees. At the same time, 'Modular Curriculum Operation' and 'Open Operation of All Curriculums' were implemented to increase opportunities for employees to participate in education/training.

Particularly in 2011, K-water introduced the Training Summation System that recognizes OJT and Educational Club activities as study hours in order

to activate work-centered education and training. Also, in 2013, in order to effectively accommodate increases in demand for education training as a result of having established comprehensive education and training programs early in the year, OJT is being provided within the departments.

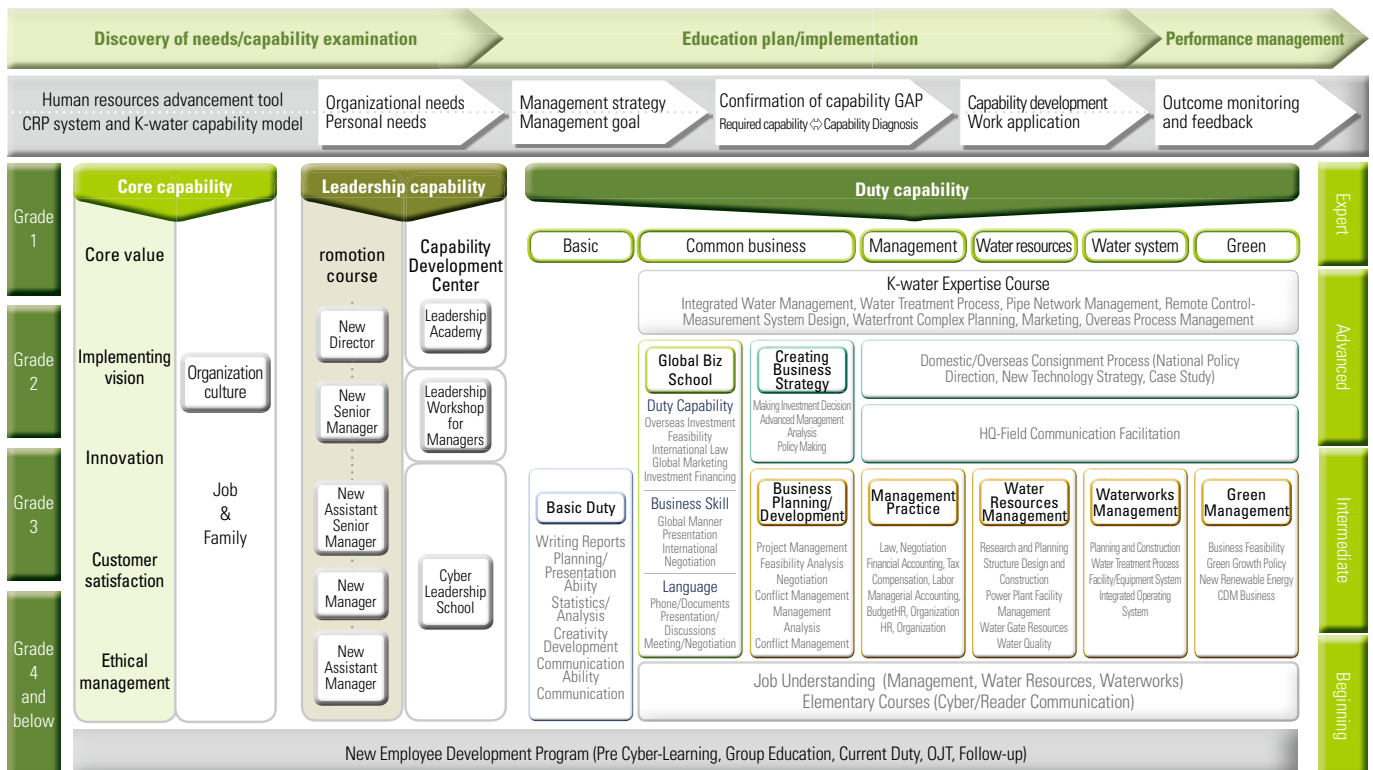
Cultivating Key K-water Specialized Personnel

K-water opened the "K-water Expertise Course" in 2008 to acquire global competitiveness by cultivating specialized personnel and has been cultivating specialists across all sectors. As of the end of 2012, the program has produced 396 experts in 38 courses. In 2013, the company has chosen 78 employees to give 300 hours of master degree level education for five strategic businesses in 6 specialized areas (overseas business, green complex, water treatment process design and operation, perspective management and integrated water management analysis and interpretation, smart measurement and control).

Cultivating Strategic Leaders

In 2011, it became the first public company to adopt the DC (Developing Center) method. K-water's unique "Leadership Academy" systematically trains employees to become strategic leaders. The program first assesses the leadership abilities of an individual and systematically develops needed leadership qualities. In 2013, the company is also running a leadership workshop for grade-2 level or above leaders. This process consists of various learning activities (role playing, discussion and etc.) and conversation with management. The program is critical to promoting new growth engines for the company and is conducted every quarter. The program is designed to improve the roles of team managers, facilitate communication with team members and develop their abilities to understand staff better.

| Comprehensive Education Schematic



Great Work Place

Promoting Employee Welfare

Due to the characteristics of the water business that includes dams and waterworks, K-water's regional headquarters and management offices are scattered all across the country. To resolve housing problems for employees that have been transferred to different areas for work purposes, employees are provided with support for living and rental homes. A portion of home purchase loans are provided for to assist in purchasing private homes to ensure stable housing and living conditions. K-water received the Family Friendly Corporation Certification (November 17, 2009) given out by the Ministry of Gender Equality & Family by operating family friendly welfare policies and programs, including recreational facilities accessible to all family members, cultural & arts experiencing opportunities, writing classrooms & English camps for employees' children. The company was re-certified as a Family Friendly Corporation in October, 2012 for its sustained efforts in employee welfare.

An Enjoyable Workplace opened through Smart Work

K-water has been fostering a smart management environment that allows employees to work creatively and intelligently without being hindered by time or place in response to paradigm changes in the way people work. To create a smart work environment, K-water has been operating 12 smart work centers within regional divisions and overseas operations (Thailand, Philippines). Mobile service systems have been developed, including customer service centers. We plan to continue expanding our mobile services offered for the general public, including bidding, leases, and 4-Rivers use. K-water also

contributes to horizontal communication across the board for all employees by utilizing corporate SNS 'Yammer' and in the establishment of a Paperless Reporting culture. Additionally, we are test operating a policy that allows employees capable of smart work to work from their homes 1~3 days a week for periods within 3 months (possible to extend once).

Development of a Self-Led Learning System

K-water is helping employees continuously upgrade their capabilities by providing diverse training programs. A representative program is the Competency Reinforcement Plan (CRP), which helps individual employees enhance expertise in their specialized work functions on their own. The CRP is a 'T-shaped' personnel development concept. A 'T-shaped' employee refers to someone that is not only specialized in one's traditional sector, but is also well-versed in adjoining areas around the employee. It is a program that enables employees to acquire in depth knowledge in one area through expert training for a certain period of time when first entering the corporation. Once the employee reaches a managerial position, the employee is allowed to participate in training to expand his/her knowledge in a field that is relevant to the overall corporation.

Welfare & Safety

K-water is creating a Great Work Place (GWP) for healthy people. Results of health examinations in 2012 showed that 63.7% of employees were Healthy (Grade A, B), while 36.3% were classified as possessing health diagnosis


| Health Enhancement Integrated Operation Program

Category	Description	Effectiveness
Health Management System	<ul style="list-style-type: none"> • Making database of personal check-up management records in 100% 	Providing health information and counseling in real time
Comprehensive Health Check-up System	<ul style="list-style-type: none"> • Support health check-up cost 	Discovered 15 cancer cases out of 16 through health check-up in 2012.
Harmful Site Health Management System (Water Quality Analysis Research Center and 22 other places)	<ul style="list-style-type: none"> • Measuring working environment • Implementing special health check-up 	Measuring experimental lab and working condition Provide special health check-ups for 149 workers in harmful working sites
Non-smoking Program	<ul style="list-style-type: none"> • Operating Period : '12. 3 ~ 9 • Participants : 28 people 	Successful members: 8 (28.6%) , post-management within 3 months (127 per 6 years)
Obesity Clinic	<ul style="list-style-type: none"> • Operating Period : '12. 4 ~ 10 • Participants : 41 people 	Successful people: 7 (Average - 8.4%, reduction in body fat)
Heart attack prevention program (HEART 119)	<ul style="list-style-type: none"> • Run physical fitness test and exercise overloading test to find patients with abnormal heart conditions and provide customized individual exercise plan • Number of participants 	Requires precision check-up for heart-related problems and 34 patients with abnormal medical conditions (25.9%)
Maternity protection program	<ul style="list-style-type: none"> • Support pre-pregnancy cost for pregnant women • Provide a resting lounge for female employees and breast-feeding facilities. (Provide hand-breast pump) 	Minimize work due to pregnancy Encourage breast-feeding

(Grade C2, D2). When compared to the previous year, the diagnosis group increased by 0.2%. Among all of those receiving examinations, the prevalence rate, or the ratio of those diagnosed with a disease decreased, from 9.2% in 2011 to 7.1% in 2012. This is the result of systematic and sustained health management such as non-smoking and weight control programs to prevent healthy adults from developing adult diseases and health tests for physical fitness and exercise deficiency to prevent sudden heart-attack deaths. In 2013, in addition to existing health management programs, the company added and expanded its metabolic syndrome clinic, chronic illness management and other prevention-oriented health management programs. Also, the company is offering customized physical health tests and other programs to improve the quality of health management programs.

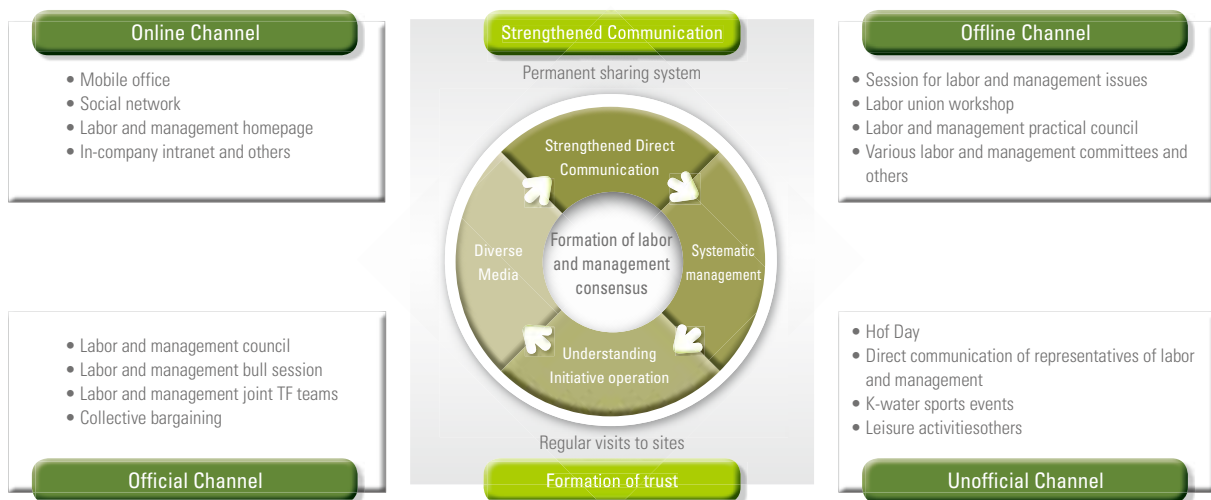
Development of an Advanced Labor Management Culture

Established in 1987, the labor union can be subscribed to by employees of Grade 3 or lower. All full-time employees become members upon entering the company. As of March 2013, 83% of our entire employees or 3,662 employees were members. The organization has been contributing to increased corporate-level consensus based on strengthened mutual trust through improved

policies, management explanatory sessions, and increased information sharing between labor and management through corporate-level cooperation systems. The unique labor and management cooperation system has organized and operated a practical team for system improvement, such as, personnel organization, organizational culture, welfare system, integrated water facilities operation and others to resolve management issues since 2006, resulting in improvement plans and step-based execution of pending cases. Particularly in 2012, the organization finalized a sisterhood relationship with the Daegu Dongu Multicultural Family Support Center to promote and support multicultural families and gathered various positive results that served to establish new paradigms for labor union activities, including 'Campaign to Find Missing Children', 'Agreement to Purchase Gift Certificates for Traditional Markets', etc. At the same time, as 2012 will mark the first year of the  and the formation of the 9th Labor Union, labor and management have jointly declared a win-win relationship. K-water complies with Labor Standards Act Article 7, (Prohibition of forced labor) and strives to guarantee and improve the legal working conditions of laborers.

83% (2013. 3), Labor Union Subscription

0 Cases, Cases of Labor Disputes in 2012



Focus



Establishing Labor-Management Culture of Mutual Prosperity and Facilitating Social Contribution Activities

K-water has achieved advanced labor-management culture by developing a new paradigm of labor union in which labor union and management worked together on social contribution activities that include support for multi-cultural family. Also, the company was successful in enhancing working condition for employees and developing healthy organizational culture, which earned the company in 2012 the honor of being selected as Company with Outstanding Labor-Management Culture, earning Minister's Award in Good Job-Family Relations & Family Friendly Management and chosen as one of the 100 great companies to work (GWP). Since both labor union and corporate management declared mutual coexistence for success of K-water in the future in 2012 and held a ceremony to announce joint collaboration to make contribution to society in 2013, the company has been working in unison, based on the philosophy of mutual prosperity and collaboration, to fulfill its duty as public water management company and try the best to make this world a better place to live for everyone.

Social Contribution Activities

K-water will lead the way in the establishment of an eco-systemic foundation and spread a culture based on sharing and social contributions.

Promoting Strategic Social Contribution Activities

K-water has set a vision, three major values, five major core areas and strategic directions uniquely to K-water's social contribution activities to fulfill its mission of creating a "Happier World with Water." K-water is also implementing its social contribution activities strategically based on choice and concentration strategies to achieve sustainable corporate development and fulfill its social responsibilities.



Environment-Culture Sharing

Making a clean river	Making a beautiful dam	Water culture sponsor
<ul style="list-style-type: none"> Releasing native fries, supplying water, protecting the environment Maintain low stream rivers below dams Create clean spring water environment 	<ul style="list-style-type: none"> Building environment-friendly dams Operate Water Culture Halls Creating environment friendly resting area 	<ul style="list-style-type: none"> Hold water culture events and support them Hold Water-Tour Hold Water-Love contest

- **Making clean rivers:** The maintenance project has been made for the lower streams of the rivers with dams. Diverse efforts have been unfolded to make the rivers cleaner such as the releasing of native fry fish, and supplying water for the environment.

- **Making beautiful dams:** The rest & relaxation areas are provided to the residents by establishing environmentally-friendly spaces at dams and operating the water culture halls in multi-purpose dams. There is a forest project under way around the dam area and rape and cosmos flowers are being planted in the flood control area, providing an environment-friendly resting place for people.
- **Water culture sponsor:** Various high grade culture performances were provided for residents near dams and the clean water music concerts and sponsoring local culture events have been performed for the activation of the local economy. In 2011, we have been cultivating and supporting water related sports sectors by employing disabled rowing athletes and swimming (synchronized) athletes. In addition, we have strived to increase awareness and interest in the importance of water within the general public through events such as the Water-Tour experience and Water Exhibit Competition.

Regional Community Sharing

Filial Duty service	Income Assistance	Water Love Scholarship	Support for multi-cultural family
<ul style="list-style-type: none"> Run Hyonanum Welfare Center Provide care services Medical volunteer Sarang-naneum 	<ul style="list-style-type: none"> Job finding services Support environment-friendly farm complex and sales network 	<ul style="list-style-type: none"> Provide educational opportunities and scholarships to students near the dam 	<ul style="list-style-type: none"> Support multicultural family to adapt to society and home visit

- **Filial Duty Service (Hyonanum):** K-water established Filial Duty Welfare Centers (Hyonanum Welfare Center) to improve the welfare of seniors residing in areas nearby dams by providing lifestyle based welfare services related to culture, medical needs and housework. The centers provide services, such as physical therapy and free meals with resident social works and physical therapists as well as senior protection and housework services for seniors whom have difficulty moving. As of 2012, a total of 8 centers are in operation. In addition, the 'K-water Love Water Medical Volunteer' program was established in conjunction with the Korea Open Doctors Society from 2009, helping residents nearby dams to receive free medical care. In 2012, the program was offered 19 times to 5,700 regional residents in 14 dam areas.
- **Income Assistance:** K-water provides support for jobs and income through a job placement/sharing program designed for youths and adolescents within dam areas. In 2012, a total of 675 people were first

employed within subject regions for placement in various jobs, such as assistances and helpers for seniors and maintenance/repair personnel to improve neighborhood environments. In addition, an eco-friendly agricultural complex was created in dam regions subject to limits on agricultural production to protect water supply sources, which was used to improve the quality of water but also promote regional economic activities.

- **Water Love Scholarships:** To minimize the education gap between dam areas and urban areas, K-water has provided native speaker language training for elementary school students, science classes for middle school students, and online education classes for high school students. In addition, K-water strives to improve learning conditions for students residing nearby dams by providing scholarships and meal service support, school supplies and textbooks to schools in remote areas.
- **Support for Multicultural Families:** K-water provides living assistance support, visiting homes and visiting Korean language classes considering regional migration status and conditions to support stable settlement of multicultural family around dam areas and their social and economic independence

K-water Volunteers

Established in July 2004, K-water Volunteers Group has 4,265 members, or 99% of all employees in 2012. The volunteers have registered in 100 volunteer clubs and spent a total of 59,000 hours (13.8 hours per person) to conduct volunteer activities. A fund comprised of a set amount taken from employee salaries and matched by the company is being used as funding. We are operating various policies to support employee volunteer activities, such as a social volunteer management system to systematically manage volunteer activities and online classes to improve volunteer expertise.

Business Characteristic Sharing

Clean water sharing	Water education sharing
<ul style="list-style-type: none"> Supply clean water: supply water for elementary/middle school, free water quality test Stable water supply: seawater desalination, emergency water supply, freeze protection 	<ul style="list-style-type: none"> Hold science camps for low-income family youth Water education to water resources/waterworks area government officials in developing countries

- **Clean Water Sharing:** K-water has strived to create a world without water shortages based on circular inspection and regular water quality tests for water supply facilities for 53 elementary schools and secondary schools that use underground water. We have also conducted free water quality inspections. In addition, K-water operates and supports 39 desalination facilities in 9 cities and counties suffering from chronic water shortages while supplying clean and safe water services in remote areas and islands.

- **Water Education Sharing:** K-water provides opportunities for lower class children to properly understand water through science experience camps. We have also spread our construction technologies and know-how with water corporations and officials in overseas developing countries

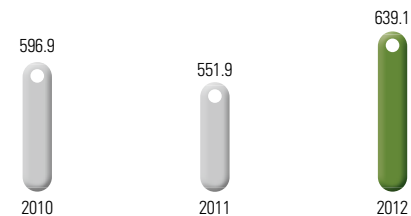
by conducting water related technology and management training and education.

63.91 KRW billion,

Investment in Social Contribution Activities in 2012 (2.4% of total sales)

| Annual social contribution investment

(Unit : KRW billion)



| Volunteer hours per person

(Unit : hr)



The Global Sharing

As a global water specialist, K-water has strived to create a "Happier World with water" by developing town waterworks facilities and supporting residential activities for people all across the world suffering from a lack of water. Starting with a drinking water project in Tajikistan, 2006, K-water has conducted global social contribution activities by dispatching 240 volunteers to 8 countries, including Cambodia, Vietnam, Philippines and Laos, until 2012. In 2012, the company sent 4 teams/52 people to 2 villages in Chitwan, Naraniyani zane in Nepal and 2 villages in Khammouan xebangfai in Laos to do repairs and construction of village waterworks and public facilities, thus actively participating in global water solutions. In 2012, the company was recognized for such efforts and received the "Happiness Shareing People Prize" in the global sharing category hosted by the Ministry of Public Health and Welfare.



※ You can obtain more information about K-water's social contribution activities at K-water's web site (<http://www.kwater.or.kr>).

Activities of K-water Volunteers

A happy society achieved by sharing and sympathizing together with K-water.

K-water Volunteers have undertaken service activities to contribute to improving local communities and the lives of citizens throughout Korea. It delivers love and happiness to local communities with its diverse activities, including helping needy neighborhoods, environment protection activities, disaster relief activities, contributions to local communities and much more.



1 Releasing fry fish to protect native fish species **2** Hyonanum Welfare Center is filled with laughter and love **3** Love-Sharing medical service to heal the wound **4** Native English speaker's English class **5** Delivering briquettes of love

1	2
4	5





6



7



8



9



10

6 Farm volunteer activities to give help 7 Cleaning Campaign to build clean environment 8 Salvation activities in disaster area to share suffering with local citizens. 9 Emergency water supply, sweet rain in drought regions 10 Sharing kimchi 11 (Global Sharing) Education volunteer service with innocent children 12 Sea water desalinization consignment operation to supply clean water to island residents 13 (Global Sharing) Children drinking fresh water in school fountain 14 (Global Sharing) Installing water pipe with help from all

6	7	8
9		10
	11	12
		13
		14



11



12



13



14

An aerial photograph of a sailboat's deck and mast on a deep blue ocean. The boat is moving, leaving a white wake. The deck is made of light-colored wood, and a white inflatable dinghy is visible. The mast is white and extends from the bottom left towards the center.

Huhhuh-Bada (A boundless ocean)
where everyone is happy.

웃음 넘치는

리러니바다

Huhhuh-Bada which means a boundless ocean
is a universe that embraces all life.
Like the water dreaming of the sea,
K-water sails the world, dreaming of creating an even happier world with water.



Performances

Global Reporting Initiative **76** Financial Performance **89** Positive & Negative Information **99** GRI Report Index **100** Independent Assurance Report **104**
ISO 26000 **106** Code of Ethics Preamble, Green Management Principles, Customer Charter Preamble, Mission Statement for Innovation Vision **108**
UN Global Compact 10 rules **110** Definition of Terms **111**

Global Reporting Initiative (GRI)

Economics

Direct Economic Effects

Economic Value Creation & Distribution

The comprehensive water resources industry, including dams, the Four Rivers Major Restoration Project, Gyeong-in Ara Waterway Project, and other water resource and waterworks businesses are businesses directly related to the national economy that efficiently facilitate limited resources in the creation of economic values. The economic value generated in 2012 decreased from the previous year with a decrease in private investment as many major green national projects such as Four Major Rivers Restoration and Gyeongin Ara Waterways project were completed. Moreover, the distributed economic value decreased as well. More than 94% of sales revenue generated in 2012 was invested in business expenses, capital expenses and others in production activities.

Economic Value Creation and Distribution (Unit : KRW million)				
Category	2009	2010	2011	2012
Created economic value(1)	2,032,624	2,167,345	6,354,088	3,694,659
a) Net sales	2,005,384	2,144,750	6,325,786	3,668,445
b) Interest income, rent, and profits from sale of assets	27,240	22,595	28,302	26,214
Distributed economic value(2)	1,511,841	1,678,756	6,139,990	3,492,452
a) Operating expenses: production costs, and asset purchasing expenses	1,160,601	1,077,896	5,260,373	2,493,275
b) Wage and welfare: wage, benefits	285,818	341,990	357,221	360,591
c) Capital cost: interest paid, dividends	63,971	160,662	399,552	501,674
d) Taxes: corporate tax, local tax paid	26,176	37,708	68,159	73,677
e) Investment in local community: contributions, various allotted charges	61,051	60,500	54,685	63,235
Surplus Economic Value (1-2)	520,783	488,589	214,098	202,207

※ Standard applying the international accounting standard used in Korea from 2011 is applied

Responding to Climate Changes

Financial Effects and Risks and Opportunities of Climate Change

According to forecasts of an acceleration of global warming acceleration by inter-government bodies on climate change, IPCC(Inter-government Panel on Climate Change), and other international organizations, response to climate change has emerged as the priority agenda for the international community. In joining the efforts to respond to worldwide climate changes and realizing green growth, our government has completed a comprehensive plan for responding to climate change (Sep. 2008).

The government has introduced a greenhouse gas/energy target management system in order to reduce greenhouse gases and is regulating

greenhouse gas production of corporations. K-water was designated in 2010 as a managing company and is working on greenhouse gas reductions. The company is building a response strategy to reduce greenhouse gas reductions in order to continuously respond to climate changes. Carbon rights trading system will begin in 2015 and a market mechanism will be applied to the system. Therefore, from the corporations' perspective, both risks and profits are present.

※ Please refer to pg 54-55 for details.

Retirement Pension

In preparation for the possible retirement of employees, retirement provisions have been allocated in accordance with the Labor Standard Act. Taking the average wage of employees during their employment period and 3 months before retirement as considerations, K-water guarantees that employees will receive retirement grants on the date of retirement. The retirement pension system was introduced for executive managers in 2012. Other employees are having on going discussions with the labor union.

Government Subsidy Benefits

As K-water conducts national projects, a portion of project costs is supported by the government in the form of government subsidy benefits. In 2012, K-water received 291.2 billion won in financing costs and 5.6 billion won for local waterworks, the total of 298.8 billion won (126% vs prior year).

Recipients of Government Subsidies (Unit : KRW million)				
Category	2009	2010	2011	2012
Total	3,150	4,309	236,679	298,786
Support for the Construction of the Innovation City	3,150	1,000	1,619	-
Danyang Local Waterworks		486	313	585
Sacheon Local Waterworks		470	494	622
Tongyeong Local Waterworks		1,384	1,247	1,569
Goseong Local Waterworks		969	2,911	2,807
Pure Industrial Water	-	-	800	2,000
4 Rivers Financing Cost	-	-	229,295	291,203

Market Status

Legal Minimum Wage Vs. New Employee Wage Ratio

The monthly wage for entry level employees with a university degree (level 5) is 213% of the legal minimum wage.

Local Purchasing Policy

Purchasing by K-water is conducted through the electronic purchasing system and procurement purchases. However, to promote local purchasing by field offices, regional purchases is possible for construction contracts or merchandise purchases in amounts less than a maximum value amount set by the Korean government (Ministry of Strategy and Finance).

Local Hiring for Domestic & Overseas Project Sites

In general, K-water ensures equal employment opportunities for all new employees, eliminating limitations on academic background, regionalism, and age. However, K-water hires local personnel for local waterworks meter reading personnel and water project operators. Since initiating local waterworks consignments in 2004, K-water hired 461 personnel locally as of the end of 2011. In addition, K-water has helped relieve youth unemployment problems and contributed to the development of the local communities by hiring a total of 964 young interns from 2009 to 2012.

Indirect Economic Effect

Investment in SOC Facilities

In 2012, K-water has contributed to the national economic advancement by investing a total of KRW 2.4738 trillion in SOC projects, including KRW 1.371 trillion on facilities for water resource development in major policy businesses, such as key national projects including the Four Major Rivers Restoration Project and Gyeong-in Ara Waterway Project as well as new dam construction, including Hantan-gang River Dam and Youngju Dam. As well, construction was done to increase the capacities of existing dams, KRW 321 billion in new and renewable energy facilities, including Sihwa tidal power and Sihwa Bangeori wind power, KRW 302.8 billion in waterworks construction, including waterworks facility construction and water distribution system adjustments and KRW 767.9 billion in new city construction and industrial complex development.

Dam Environment Improvements and the Opening of the Water Cultural Center

The construction of a new dam takes environmental factors into consideration from the beginning. However, since existing dam facilities tend to be worn-out and obsolete, they are not able to provide much support to the local economy. Considering this, K-water is establishing comprehensive measures aimed to improve the environment of existing dams while substantially renovating the surrounding facilities. Some of these efforts include setting up observation decks, elevators and promenades. Water Cultural Centers are also either being newly constructed or renovated to create a resting area and cultural space for visitors.

Assistants for Residents in Nearby Dams

K-water has implemented its 'Support Businesses' since 1990 to increase the income and improve the welfare of residents in areas nearby dams. In 2012, it has structured a total of KRW 91.32 billion for the resident support business for local support business, resident welfare, and learning capabilities to improve the local environment and agriculture, and promote the livestock and fishery industries. In particular, it enhances resident satisfaction through the tailored support business for each household by providing native English

speaker education for elementary school students, job-sharing businesses for youths and adults, and operation of Filial Duty Welfare Centers (Hyonanum Welfare Center) to promote the welfare of seniors and to reduce the gap between urban and rural areas.

Category	Description
Local Support	Income Enhancing Project
	Agricultural and Livestock Industry, such as Farm Roads, Composts, Farming Facilities
	Projects to Create Foundations for Livelihood
Resident Support	Projects to Utilize Environment Near Dams
	Living Environment Improvement Projects such as Medical Equipment, Town Centers, and Town Access Roads
	Stroll passages, bike roads, camping ground and other leisure related businesses
Dam Support	Local citizen Livelihood Support Projects
	Medical Expense / Expert Health Support, Electricity Expenses / Living Expense Support & Job Sharing Projects
	Child Raising Support Projects
Dam Support	Child Raising Support such as Education through Native English speakers, Scholarships, & School Meal Expense Support
	Dam Reservoir Usage Fee Subsidy
	Providing a 50% Subsidy for Local Governments using Dam Reservoirs
Dam Support	PR & Auxiliary Projects
	Projects Reflecting the Dam's Characteristics such as Constructing Filial Duty Welfare Centers & Supporting Environment-friendly Farming

Environment

Use of Raw Materials

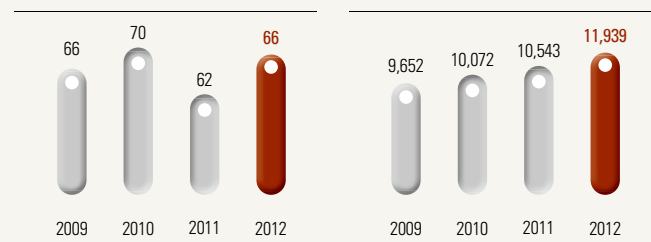
In 2012, 3.6 billion tons of tap water was produced. In order to obtain low-carbon product certification for tap water to minimize greenhouse gases, the company reduced raw materials such as the source water used during tap water production process and water purification chemicals used to purify it. As a result, <Stage 1> carbon emission quantity certification was completed for 39 water purification plants that were operating as of 2012 (average 247g CO₂/ton). Also, in 2011, Cheongju water purification plant succeeded in obtaining the <Stage 2> low-carbon product certification (the first time in the world), which was followed by certification for 10 additional plants by 2012. For details on purification and sewage sludge produced during the production process and the recycling of construction wastes, please refer to page 80.

Energy Savings

Energy Consumption

The total energy consumed in 2012 was 12,005TJ, an increase of 13.2% over the previous year. Most of the energy was used during waterworks processes, such as the intake and supply of water and the operation of pumps in pumping plants. Direct energy consumed through diesel and gas was 66TJ, while indirect energy consumption through electricity stood at 11,939TJ.

| Direct Energy Consumption (Unit: TJ) | Indirect Energy Consumption (Unit: TJ)



Energy Reduction

Energy savings contribute to reducing green house gases and water production costs. For energy savings, the waterworks area are continuously managing electricity source units. The company analyzes energy consumption over the entire water process from collection-production-supply and produces energy savings method by facilities and processes for sustained energy savings. In addition, for sustained energy savings, the company created mid- to long-term energy reduction plans in September, 2012, focusing on 5 major energy reduction savings issues.

Energy Efficiency Enhancement in Dams & Waterworks Facilities

To reduce green house gas emissions and counter the energy crisis due to recent oil price hikes, improvements are being made to enhance energy efficiencies by deciding on optimal pump specifications and optimizing internal coating & pump operation scheduling. By enhancing the performance of multipurpose dam hydropower plants, K-water is contributing to the increased supply of clean energy domestically and effectively countering climate change. Accordingly in 2011, K-water has commenced the feasibility study on effects of greenhouse gas emissions by CDM Projects with improved hydropower facility energy efficiency, which has registration after passing registration review by the UN in 2012.

Energy Cost Savings Plan

Category	Description
General Management	<ul style="list-style-type: none"> - Energy Cost Savings Plan through Facility Innovation (Lighting Facility) - Streamlining operation via lighting and air conditioning equipment - Energy cost saving via sound utilization of electric equipment - Energy consumption target quantity management and energy cost savings goal management
Waterworks Area	<ul style="list-style-type: none"> - Electricity cost estimate program development and operation. - Changes in optimal electricity cost by work site - Apply and innovate high efficiency facility, e.g., changing transformer volume
Dam Area	<ul style="list-style-type: none"> - Improve facility to maintain overloading rate of 95% - Set and manage goals for in-house electricity consumption rate /savings rate - Expand application of new renewable energy

Energy Savings Project Performance

2012 Total Energy Savings → 25,362MWh	<ul style="list-style-type: none"> - Waterworks energy savings ⇒ 17,765MWh - Power generation energy savings ⇒ 7,597MWh
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Total Energy Reduction by Department

(Unit : MWh)



Water Usage

Water Sources Affected by Water Intake

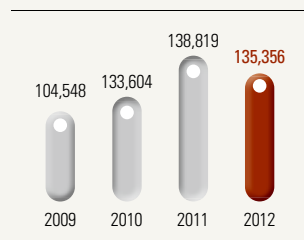
K-water collects most of its living water from the downstream of the Nakdong River. The company is working on the Nakdong River Filter Water Project (2011-2017) which will provide filtered water and supply clean water to Busan and Yangsan area, the area traditionally vulnerable to water pollution (phenol, benzene). In Changnyeong-gun, where a water intake system will be built, there is a concern that the underground water pool can be affected by the development of a water filter factory. Therefore, the company created a research team of experts recommended by both residents and academia and is conducting an Underground Water Impact Study.

Water Reuse and Recycling

K-water has been collecting and recycling backwash water, with the recycling quantity being 18.806 million m³ in 2012. For customers using recycled waste water, a rate reduction (30% off of water rates) policy is applied to increase the use of recycled waste water and to establish a circulation-type society. In 2012, recycled waste water by customer reached 135 million m³, which was able to produce fee reductions totaling KRW 2.7 billion.

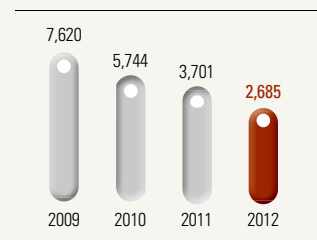
Client gray water production volume

(Unit : 1,000m³)



Gray water cost reduction amount

(Unit : KRW million)



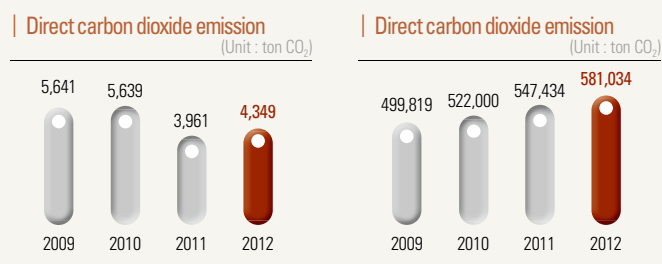
Preservation of Bio-diversity

Diverse activities are being implemented to preserve bio-diversity, including designing, constructing & operating eco-friendly water resources facilities, creating bio-diversity preservation facilities & spaces, and preserving the habitats environment of organizations & natural cultural treasures. Detailed information related to bio-diversity identification, continuous environmental monitoring of management plans & project areas, and identification of species in danger of extinction, can be found on pages 58-59.

Greenhouse Gas Emissions

Total Greenhouse Gas Emission

Total greenhouse gas emissions in 2012 reached 585,383 ton CO₂, a 6.2% increase over the previous year. This was mainly due to the increase in power consumption stemming from an increase in the water supply. Direct greenhouse gas emissions from the usage of diesel fuel and gas increased to 4,349 ton CO₂, while indirect greenhouse gas emissions from the use of electricity increased by 6.1% to 581,034 ton CO₂ vs the previous year. In addition, indirect greenhouse gas emissions from transportation of employees & executives to and from work, and business trips were 2,436 ton CO₂ in 2012.



Greenhouse Gas Reduction Projects and Performances

Refer to page 39 for details regarding K-water's CDM projects & performance.

Quantity of Ozone Layer Destroying Substances & Air Pollution Substance Emissions

There are no processes in the production of water that emits ozone layer destroying substances, such as Freon gas. There could be potential leakages from cooling facilities that contain Freon gas. To prevent this from occurring regular safety inspections are carried-out on all cooling facilities. At the same time, there are no production processes that directly emit air pollution substances at any of the K-water project sites. However, there could be air pollutants emitted while using from use of oil, e.g., diesel, to operate the project work sites and facilities. Since the introduction of the green management system in 2011, each department at K-water has been working on various activities to minimize oil consumption by reflecting them in the departmental green objectives it establishes.

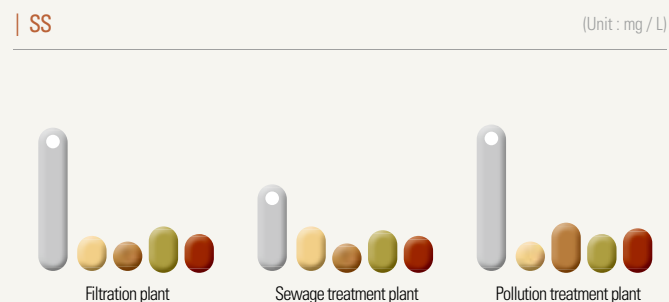
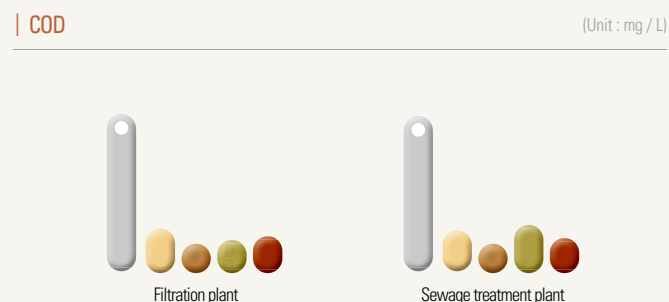
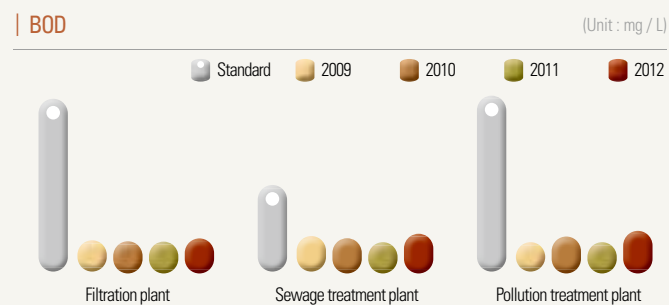
2012 Air Pollutin Discharge Status (Unit : kg)

Particulate Matter	SO _x	CO	HC	NO _x
244	1,678	3,533	896	9,235

Total Waste Water Discharge Quantity & Water Quality

As the amount of water discharged from water purification plants and its quality directly affect the water quality of rivers and the ecological environment, K-water applies management standards that are stricter than legal standards. To minimize the effects on the ecological environment within water discharge areas and preserve the water quality in rivers, the quality of discharged water is continuously monitored by a water quality remote

inspection system. By selecting discharged water quality as the waterworks project environmental target, and as a core index of the environmental performance evaluation, K-water started reflecting the target and index in departmental evaluations from 2004.



Water Purification Plant

In 2012, the average quality of discharged water from water purification plants was BOD 2.1mg/L, COD 4.1mg/L, SS 3.1mg/L, which was only 10%, 10%, and 16%, respectively of the discharge tax levy standard of BOD 20mg/L, COD 40mg/L, and SS 20mg/L.

Sewage Treatment Plants

In 2012, among the 20 sewage treatment plants over 500 tons, the average water quality of discharged water from for 3 plans I-II area were BOD 2.1mg/L, COD 5.2mg/L, SS 2.1mg/L, which was similar to the public sewage treatment facility discharge water quality standards of BOD 5mg/L, COD 20mg/L, SS 10mg/L 42%, 26%, 21%. For 7 plans III-IV area, they were BOD

1.9mg/L, COD 6.9mg/L, SS 2.6mg/L, which was similar to the public sewage treatment facility discharge water quality standards of BOD 10mg/L, COD 40mg/L, SS 10mg/L 19%, 17%, 26%. Dr.WW, an internally developed sewage treatment program, has stood at the forefront of improving the quality of discharged water.

Simple Sewage Treatment Facilities

The average water quality of discharged water is BOD 7.0mg/L, SS 6.8mg/L, which is within 34% and 35%, respectively of the legal standards of BOD 20mg/L and SS 20mg/L.

Discharge and Recycling Waste Products

Sludge from Waterworks & Sewage Treatment Systems

In 2012, the amount of sludge produced from purifying 1m² of water was approximately 59.5g. The total amount of sludge produced at water purification plants for one year was 111,414 tons, with 100% of the sludge being recycled and used as cement material (77.5%), planting soil (16.5%) and potting soil (3.6%). Sludge produced at sewage treatment plants operated by K-water was 42,876 tons. From the total amount of sludge produced, the percentage of sludge recycled increased 5.8% to 46% of total sludge, or 19,590 tons, based on active efforts in the utilization of sludge as a resource and in strict compliance with the prohibition of ocean disposal. The sludge was mostly used for planting soil, fertilizer, earthworm breeding. K-water will gradually increase the recycling rate of sludge by converting sludge into a resource and to prevent ocean disposals.

| Purification plan sludge reuse rate



| Sewage sludge reuse rate



Recycling of Construction Waste Materials

By promoting the eco-friendly treatment and recycling of construction waste generated as a result of K-water's water resources business, K-water is contributing to the green preservation of the country, resource reductions and public welfare enhancement. The total construction waste generated in 2012 was 471,366 tons and from this 94.8% of this 446,673 tons was used as road pavement material, material for creating green tracts of land through mounding and soil covering, recycled rock, and wood chips. Going forward, K-water will minimize construction waste generation and create a resource recycling green society by "initiating designs for an environment that can coexist with nature" from the construction business planning stage, and "realizing a productive construction site through the recycling of construction waste" during the construction stage.

| Results of Recycled Construction Waste Materials

Classification	Total	Waste Concrete	Waste Ascon	Waste Tree and Plants	Waste Synthetic Resins	Combine Waste Materials and Others
Created quantity (tons)	471,366	272,580	114,453	50,649	2,709	30,975
Recycled quantity (ton)	446,673	266,263	113,318	50,649	-	16,443
Rate (%)	94.8	97.7	99.0	100	0.0	53.1

Effects from Hazardous Material Spillage, Waste Material Treatment, Sewage Water

Hazardous Material Discharge Management

Hazardous materials such as waste oil and chemical substances discharged from the project sites can have a serious effect on the surrounding environment, bio-diversity and health of local citizens. All hazardous substances from K-water's project sites are strictly treated according to related regulations. As of now, there have been no cases of accidents due to any leakages of hazardous substances. However, K-water is enhancing its ability to take measures to counter potential accidents by establishing an accident manual and holding regular training activities to prepare for hazardous substance leakage accidents.

Waste Material Discharge Management

As a result of the London Dumping Convention (1996) banning the dumping of waste materials into the ocean, there was an amendment of enforcement regulations in the Maritime Pollution Prevention Law (Ministry of Maritime Affairs & Fisheries Regulations No. 330 on February 21, 2006). As a result, the disposing of sludge from purification plants into oceans has been banned as of 2007. Since 2006, all sludge generated from purification plants has been recycled, and no sludge is exported.

| Pollutant material emission accident response system



Products and Services

Environmental Impact Reduction Activities & Performance

K-water is continuously achieving high-level environmental performance through a dynamic circulation process of P (Plan), D (Do), C (Check), and A (Action) that reflects the prerequisites of ISO14001. In 2012, 29 environmental targets in 8 categories were set while 99.3% of the targets were achieved.

| Green management implementation procedure



| 2012 Green Management Performance Results

Eco-friendly Development & Management	2 Cases of Design for Environment (DFE)
	22 Cases of Environmental Impact Assessments by Projects
	23 Cases of eco-friendly Development
	14 Cases of eco-friendly Management of Facilities
	80.0% Achieved in Management of Revenue Water at Local Waterworks
	KRW 112.2 billion Environmental Investment
Supplying Clean Water	Improvement in the Quality of Dam Water (Average COD 2.9mg/L)
	Improvement in the Dam watershed Area Sewage Treatment Rate 69.6%
	Tap Water Quality Improvement Level 50% Settled Water Below 1NTU 99.97%
Production & Consumption of eco-friendly Products	Alleviate Distrust towards Tap Water (Supplied 10,328 bottled waters)
	Production of Hydropower Energy (2,311 GWh)
	474 GWh for solar energy, wind power and others
	Allowed emission greenhouses gas 585,383 ton CO ₂
	Green Purchasing (KRW 18.9 billion)
Resource Conservation & Recycling	EPE score of 145
	Electricity Consumption at Project Sites (reduction of 25,362 MWh)
	3% reduction vs oil consumption
	Reduction in transportation energy 18GW
Reduction of Pollutant Discharge	Reduction in food waste (discharge of food leftovers generated from head office 322kg/day)
	100% achievement in water quality of discharged water at the purification plant
Environment, Safety, Health Management	Control of Discharged Water Quality From Waste Water Treatment Facility (BOD 6.6mg/L, SS 6.7 mg/L)
	Training for Water Quality Accidents (41 cases)
	Industrial Disaster Ratio : 0.2%
	Prevalence rate 7.1%
Strengthening Cooperation with Civil Society	Fines Paid for Violating Environmental Regulations 0 Cases
	Environmental Volunteer Activities 177 Times
	Council (Sihwa, Daechungho) Activities, & Participation & Support of Various Events 50 Cases
Other Environmental Management Activities	Support Water Resources Facility Tours (Water Tour 29,305 Visitors)
	Transparent Disclosure of Environmental Management Performance, Publishing the Sustainability Report & GRI Reporting Registration (A+)
	Development of Water Resources in Underdeveloped Countries (9 Overseas Projects/ KRW 838.5 billion)
	95 published thesis and 120 cases of research technology development/ 27 intellectual property rights

Legal Compliance, Transportation, Environmental Accounting

Legal Compliance

No fines or cases of non-monetary sanctions were levied due to environmental regulation violations in 2012.

Environmental Effects from Transporting Employees & Executives

The results of analyzing the environment effects caused by transportation, such as employee business trips, showed emissions of 4,575 kg of air contaminants, such as SO_x. The use of commuter buses and public transportation is being recommended to minimize the environmental effects.

| Air Pollution Materials Discharged during the Transporting of Employees & Executives

(Unit : kg)				
Particulate Dust	SO _x	CO	HC	NO _x
219	1,553	548	61	2,193

※ Ministry of Environment Announcement 2009-30, The Discharge Index of the partly revised policy toward the method of calculating the total automobile pollution substance discharge amount was applied.

Expenditures for Environmental Protection and Total Investment

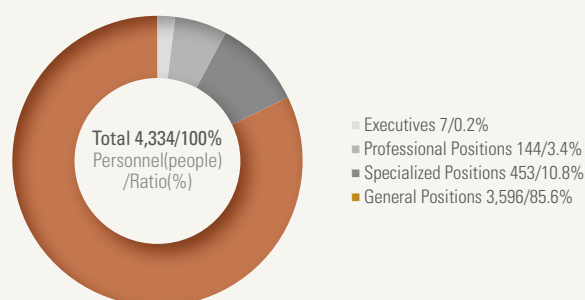
For more information on environmental accounting, including environmental investments and environmental costs, refer to page 51.

Labor

Employment Conditions

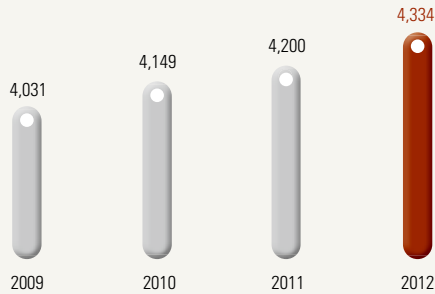
The total number of employees working for K-water is 4,334 (based on full time positions) as of December 31, 2012, including seven executives. Departments with similar functions were integrated to strengthen global competitiveness while human resources operation was increased in efficiency by simplifying organization ranks. A total of 222 personnel (182 males, 40 females) were publicly recruited in 2012 to improve organizational activities through its involvement in large scale national projects.

| 2012 Employees & Executives (Personnel)



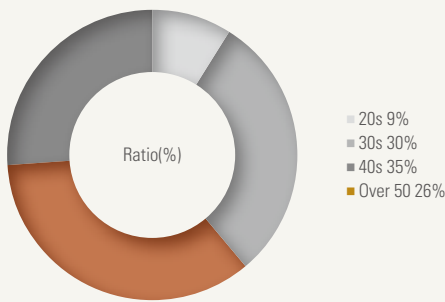
| Employees & Executives Status(Personnel)

(Unit : People)



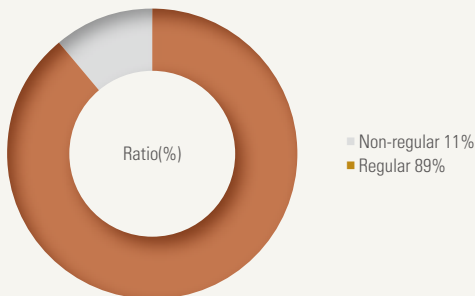
| 2012 Age Composition

(Unit : %)



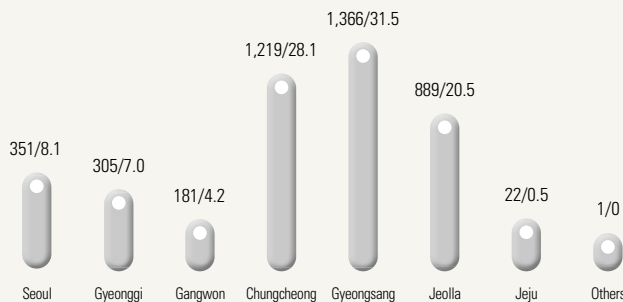
| 2012 Employment Status

(Unit : %)



| 2012 Labor Status by Region

(Unit : People / %)

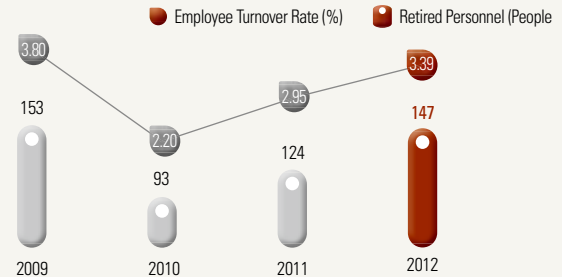


Employee Turnover Rate

Efforts to improve the efficiency of public enterprise management is being conducted from 2009 to 2013. The turnover rate has been increasing every year since compared to 2008 level (2.19%), just before the efficiency project started. The turnover rate of employees in 2012 was 3.39% (147 employees), an increase of approximately 23 employees from 2011 caused by an increase in the number of age-limit retiring employees.

| Turnover Rate by Year

(Unit : % / People)



| Status of departure in 2012

(Unit : People)

Category	Total	General position	Professional	Specialized
Total	147	85	4	58
Male	142	81	4	57
Female	5	4	0	1

Employee Welfare Policies

In addition to the legally guaranteed four major social insurance coverage for full-time employees, a variety of welfare policies are being provided to increase productivity by helping stabilize living conditions, enhancing quality of life and providing incentives. In addition, maternity leave is being offered to all 100% of male and female employees.

| Employee welfare program

Classification	Description
Residence	<ul style="list-style-type: none"> •Lending housing purchase fund •Offering dormitories and housing
Education	<ul style="list-style-type: none"> •Financial support for the middle/high school children •Financial support for university student in the family •Main office nursery program
Health management	<ul style="list-style-type: none"> •Health diagnosis and health management program (non-smoking, obesity clinic) •Run doctor's office and designated field safety and health personnel system •In-house dental office
Maternity protection	<ul style="list-style-type: none"> •Space for breast-feeding and female employee-only restroom •Secure alternative human resources in case of childbirth and maternity leave
Disaster compensation	<ul style="list-style-type: none"> •Run disaster compensation insurance system in case of disaster during work •Run and support cancer and interminable diseases, group insurance system
Others	<ul style="list-style-type: none"> •Run athletic gyms •Support club activities •Support funeral materials service

| Maternity Leave Status

(Unit : People)

Category	Total	2009	2010	2011	2012
Maternity Leave	61	3	8	24	26
Male	12	1	2	3	6
Female	49	2	6	21	20

Labor-Management Relations

In accordance to Article 35 of the Labor Union & Labor Related Conciliation Law, the rights to collective bargaining and to negotiate collective agreements are guaranteed for all employees. The current labor union membership rate is 83%(2013. 3). Based on Article 21 of the Collective Agreement (Responsibility to Notify), any changes made to labor conditions or the Articles of Incorporation should be notified to both parties without delay.

Workplace Safety & Health

The Labor-Management Joint Project Safety & Health Committee was replaced by a Joint Labor-Management Council, which is comprised of 8 members each from labor and management. The council opens meetings quarterly to discuss management issues. Through the Council, sufficient explanations on management issues are provided, and labor management disputes are reduced while achieving mutual benefits for both labor and management by enhancing productivity and welfare standards for employees through mutual discussion and understanding. To ensure workplace health & safety for project sites with over 100 employees, a joint labor-management Industrial Safety & Health Committee has been created to discuss industrial safety & health issues within the workplace.

| Safety and health item in labor-management meeting issues

•Improve maternity protection system	•Improve childcare support system
•Special diagnosis for workers in harmful environment	•Improve operation of medical facilities in the main office

The company is reinforcing diverse industrial safety, health education and construction site safety management to prevent safety accidents. It is also running a system to prevent safety management during exercise events and help employees recover from accidents quickly and allow them to return back to work healthy.

The company has implemented strict health inspections, a non-smoking program, obesity clinic and heart attack prevention programs which have reaped good results.

Injury, work-related, job-related injury rate, prevalence rate

| 2012 Injury, Professional Disease

Year	Injury	Injury Rate	Professional Disease
2012	10 people	0.2%	0 people

※ Based on regular or contractor

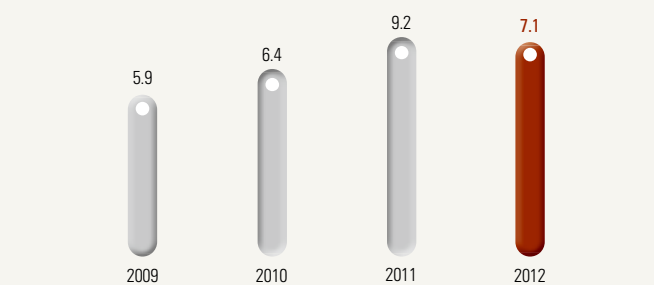
| Industrial Injury Rate

(Unit : %)



| Prevalence Rate

(Unit : %)



Disease Prevention & Risk Management Program for Employees & Local Citizens

K-water operates an employee counseling support program for employees and their families, and a 'Filial Piety Sharing Welfare Centers (Hyon anum Welfare Center)' to enhance the welfare of regional senior citizens.

Ombudsman window

Through the Ombudsman window in HR-BANK (Human Resource Capital Management Integration System), K-water has strived to aggressively resolve the problems of employees. Detailed matters are referred to on page 64~65 (Human Rights and Respect for Diversity).

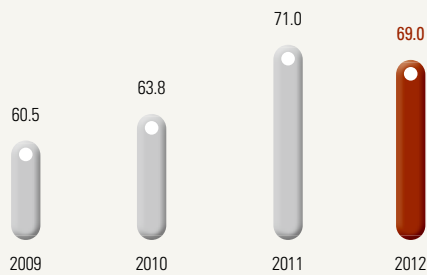
Filial Duty Welfare Center (Hyon anum Welfare Center)

In order to relieve senior welfare issues in dam areas with a relatively higher ratio of elder citizens, K-water established the Hapcheon Dam Filial Duty (Hyon anum) Welfare Center in 2006, with a total of 8 centers currently in operation. By implementing various programs, such as dispatching home volunteer service members, weekly care, and leisure welfare businesses, we have strived to resolve regional senior welfare issues while working to improve the satisfaction for local residents each year through the consignment of superior senior welfare institutions within surrounding areas.

Education & Training

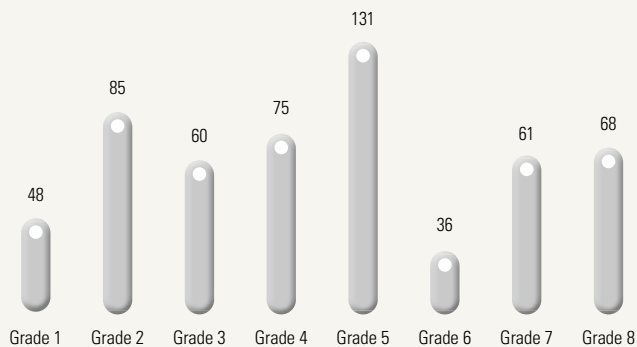
| Annual average education hours per person

(Unit : hr)



| Annual average education hours by job grade

(Unit : hr)



Evergreen Program for Retirees

An 'Evergreen Program' is being operated to effectively prepare employees planning for retirement. K-water has been providing assistance for retiring employees so that they can prepare for a second life through training courses related to change management & personal finances, real estate, and start-ups.

Subjects of Performance Evaluation

All employees receive regular performance evaluations. In the case of executives (Vice President), management contracts are entered with the President to determine the personnel and performance level in accordance with the internal management performance evaluation, such as, Division evaluation, department evaluation, and team evaluation for departmental heads and lower ranks. The evaluation categories consist of a department core index and company-wide common index in accordance with the four key viewpoints (customer, finance, process and learning growth) of BSC (Balanced Score Card).

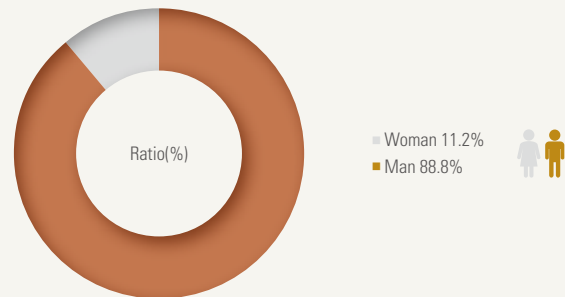
Diversity & Equal Opportunities

Employee & Executive Composition

The male to female ratio of K-water executives is 88.8% (3,848) vs 11.2% (486) with males still significantly outnumbering females. However, since the female employee target system was implemented in 2004, the share of

female labor force is increasing every year. As of December, 2012, the total number of female workers was 486, an increase in 37 vs 2011. Since the first female vice president (professional) was selected in 2010, a woman became a departmental director in 2012 for the first time and the number of female managers are steadily increasing.

| 2012 Employee Gender Ratio



Base Salary Comparison

In cases when the position and date of company entrance is the same, similar base salaries are being paid to male and female employees.

Human Rights

Investment & Procurement Practices

In the preamble of K-water's Ethical Principles, in addition to clearly stating the principles of respect for human rights, a clause is included that states that individual diversity and dignity are respected. It is stipulated so that all management activities are carried-out based on the principles of human respect.

Human Rights Review on Investment Agreements

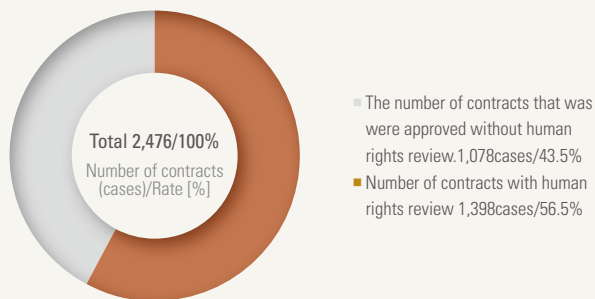
Since the overseas projects that K-water is involved with are small investment projects that are mostly Official Development Assistance (ODA) projects and engineering (Survey & Design, Construction Inspection) technology export projects, the projects do not include a clause related to human rights protection. However, K-water is scheduled to review the inclusion of human rights protection clauses in future direct investment projects and its decision-making process.

Human Rights Review for Contractor Companies

The company is doing its best to protect the human rights of socially disadvantaged groups (small to medium size business, local business, contractor, companies owned by women, non-profit company) by giving them priority during contractor selection processes. In construction contract, the company applies expanded scope of support for cost sharing of local community up to KRW 26.2

billion (national contract law is KRW 8.7 billion), gives added points to small to medium size company (PQ) and applies relaxed evaluation criteria to new companies. Also, mutual growth index and fair trading agreement performance evaluation (PQ) were created to protect contractors and the company strictly manages verification of payment to contractors. Furthermore, the company pays attention protection of human rights of construction workers and is making sure that construction companies pay social insurance (health insurance, national pension) to assure basic subsistence living. In addition, it has instituted Special Management for Labor Payment so that payment for daily workers and equipment/supply contractors are not paid late. In service contracts, during evaluation of managerial condition, the company prepared a small to medium grading table and expanded additional points when small to medium size companies participate. (PQ) Finally, for contracts with small amount (general construction work KRW 200 million, special construction KRW 100 million, other construction KRW 80 million, services and supplies KRW 50 million or below), the company is encouraging departments to purchase services from non-profit companies or female-owned companies.

| 2012 Human Rights Achievement



Human Rights Training

Currently, human rights training courses focus on protecting the rights of minority employees, such as company-wide sexual harassment prevention training and personal information protection training. In the future, K-water plans to continue expanding the contents of human rights training. For more details, please refer to page 60 of this report.

Anti-Discrimination

In K-water's Ethical Principles, it is clearly stated that individual personalities are to be respected, and that there should not be any discriminatory treatment. Through this, K-water complies with ILO policies (No. 111, "Convention on Discriminatory Treatment of Employment & Work"). To protect the rights of minority employees including the disabled, females, and & non-regular employees, various measures are being implemented, including the expansion of employment opportunities for minorities, reduction of work hours for child care purposes, and securing interim workers in case of child caring or maternity leave. A Gender Equality Department was created in the

labor union to protect the rights of female workers. For further details, please refer to page 64 of this report.

Freedom to Form Organizations & Collective Bargaining

Based on the 3rd Labor Standard principles from the 10 principles of the Global Compact, the right to form organizations in collective agreements and collective bargaining is guaranteed. There are no grounds for infringing on these rights at any of the project sites.

Eradication of Child Labor

K-water prohibits the use of child labor at all project sites and there have been no cases of child labor in any of K-water's project sites. Through regulations on the prohibition of child labor, anyone under the age of 15, or students in middle-school under the age of 18 are prohibited from employment. All new employees are required to provide documents that demonstrate their age. Through these efforts, K-water is faithfully abiding by the 5th Labor Standard principles from the 10 principles of the Global Compact.

Eradication of Forced Labor

K-water complies with Korean Labor Laws and ILO policies (No. 105, "Convention on Eliminating Forced Labor") to prohibit forced labor. K-water is faithfully abiding by the 4th Labor Standard principle from the 10 principles of the Global Compact.

Security Practices

K-water has been developing infrastructures for the protection of personal privacy and regularly conducting information security education and training. K-water has been systematically managing personal information protection by establishing personal privacy protection standards in addition to operating personal information exposure inspection solutions and privacy protection systems. For more details, please refer to page 60 of this report.

Rights of Local Residents

As an SOC investment related public corporation that oversees the construction of dams, waterworks, and complexes, there are inadvertent disputes with local residents in the process of implementing projects. As most are related to property compensations, a total of 53 lawsuits occurred in 2012 (41 cases related to property compensation). Nonetheless, K-water strives protect local citizens that must leave their residences while working to resolve the cases expediently. As part of a support package provided to local citizens forced to emigrate from their residences for construction, K-water is providing a variety of benefits to local citizens through various support projects for local residents.

Society

Impact on Local Communities

Environmental Assessments by Project Stage & Local Environment Management

Taking the environmental & social effects by project stage into consideration, K-water has been conducting sustainable water resources development. From the administrative planning stage of a water resources project, suggestions & opinions from local citizens are collected. At the same time, a local council is established based on participation of local citizens and project related parties to alleviate various problems that might affect the local community. In addition, when participating in overseas water resources development projects, such as Pakistan and Cambodia, K-water is contributing to the sustainable development within the subject country by conducting environmental assessments to implement sustainable development from the planning stage.

| Process of environmental impact assessment for water resources project



Strategic Environmental Assessment(Prior Environmental Review System)

The system reviews the feasibility of a project and appropriateness of the plan for policy and development planning to promote sustainable national land development. K-water has conducted strategic environmental impact assessment of policy planning for 2012 Long-Term Dam Construction Plan (2012-2021)

Environmental Impacts Assessment

As a policy to minimize environmental impacts by forecasting & evaluating environmental effects from the actual design stage of a development project and by identifying ways to reduce impact on the environment, K-water strives to protect the local environment by pursuing for appropriate reduction methods through environmental impact assessments when establishing plans for the construction of industrial complexes, cities, dams and roads. In 2012, environmental impact assessments were conducted for large scale national projects, such as construction of water capacity expansion project for Unmun Dam and PyeongHwa Dam while environmental impact reduction measures were established through the development of eco-corridors and alternative habitats for endangered wildlife.

Small-scale Environmental Impacts

The system minimizes the impact of small development projects outside the environmental impact assessment has on the environment. In 2012, K-water conducted small scale environmental impact assessments such as Hantan River Dam military infrastructure and river projects and minimized environmental damage caused by construction.

Post-investigation of Environmental Impacts

The company is conducting environmental investigation from the starting year to completion year of construction in order to verify strict implementation of agreed-upon items discussed in the environmental impact assessment and prevention of environmental impacts that are likely to arise. In 2012, the company is implementing impact reduction solutions to minimize environmental impacts by conducting 16 post-environmental investigations that includes multi-purpose dams, the Four Major Rivers and Sihwa tidal power plant projects.

Environment Restoration & Cultural Treasure Preservation

Efforts are being taken to restore local environments by creating eco-friendly facilities such as eco-corridors, fish ways and substitute habitats to prevent changes in the environment from water resources development projects, and to secure ecological soundness. As can be seen through the Jangheung Dam Prehistory Cultural Park and the Daegok Dam Cultural Exhibition Hall construction, K-water is placing its efforts on preserving local cultural assets that can be potentially submerged or damaged.

Corruption Prevention

Efforts to Discover Corruption Factors and Removal Methods

We have improved operational transparency and strengthened anti-

corruption internal controls by discovering improvement areas with potential corruption vulnerabilities and self-regulating improvement tasks. In 2012, the company instituted and carried out a total of 34 system enhancement projects such as the Turn-key Construction Design Evaluation Review Committee Selection Method and strengthened efforts to discover early customary and structural corruption and stop them. In addition, the company runs a confidential in-house reporting system called Natural Beauty Helpline to encourage the reporting of corruption cases. Also, it has enhanced the level of self-cleaning ability by introducing a QR code for corruption reporting and mock internal reporting simulation test. As a result, K-water was chosen as an Outstanding Anti-Corruption Company hosted by Citizens Rights Committee. (December, 2012)

Operation of Corruption Impact Assessment System for various Internal Regulations

The company is operating a corruption assessment system that strengthens the appropriateness and transparency of internal regulations through reasonable analysis and evaluations of potential corruption factors within internal regulations. Through effective execution of the autonomous corruption assessment system, we have revised 5 potential corruption factors in 2012 as a means of advanced prevention. In addition, the company posted a total of 94 internal company regulations on the company's web site and adopted a system to pre-announce legislation/revision of company regulations concerning customer services in order to accommodate diverse opinions of citizens, thus laying a foundation for the transparency of tasks.

Strengthening of Integrity Monitoring for Corruption Prevention

Strengthening of Integrity Monitoring for Corruption Prevention By utilizing CAATs (Computer Assisted Audit Techniques), K-water has advanced its internally-developed intelligent monitoring system WARN (Wide Audit & Risk Network) so that 93 risks of 43 management systems are monitored in daily units to strengthen our corruption prevention function (in 2012, real-time resolution of 173 abnormal conditions). The audit technology based on WARN system was recognized as a leading integrity policy and, as a result, K-water was selected as Clean Champion (CC Club) by Citizens Rights Committee in June, 2012. The company presented its successful cases of integrity campaign to external organizations 16 times, including the Korean Auditors Association. At the same time, K-water operates 'integrity call' and 'integrity envelop' for aggressive gathering of customer opinions on fair, transparent and corruption experience cases related to major civil works of the public corporation to strengthen communication with customers by preparing customer complaints and its related improvement plans.

Establishment and Expansion of an Honest Organizational Culture through Communication-centered Integrity/Ethics Training

The executive managers led by example and demonstrated their leadership by offering Innovation Workshop Special Lectures (3 times), Invitation

Lecture of Head of Presidential Social Integration Campaign (April, 2012) and regular classes on manager's leadership communication (September). In addition, integrity and ethics training courses, which are required of new employees, employees with promotion and management (695), were conducted. Integrity and ethics trainings were provided to 19,249 employees in 2012 by holding field workshops to share audit information (June, December 2012), special trainings for departments vulnerable to ethical management, a series of discussions on culture of ethical management (Talk) and other activities to spread anti-corruption and ethical culture. Also, the company has established and runs the "Communicating People" program using SNS service Yammer in order to create a consensus for quick sharing and communication of ethics information.

Selected as Outstanding Organization in the Evaluation Result of Ministry of Land and Transportation Officer Management

The company has organized and is running integrity investigation teams, close monitoring of period/people vulnerable to corruption, early corruption warning self-inspection program, monthly departmental integrity check under the department head, planned check on corruption risks and advanced-warning audit report system. As a result of these such company-wide integrity check programs, in 2012 K-water was selected as the best organization among 20 organizations under the Ministry of Land and Transportation in evaluation of government offices.

Selected as an outstanding institution for 7 consecutive years in corruption prevention policy evaluation

With aggressive participation by all officers and employees in anti-corruption and integrity activities and its drive for powerful transparent management by the CEO, K-water has received an 'outstanding' grade for anti-corruption action implementation from the Anti-Corruption and Human Rights Commission in 2012 based on an assessment of 294 nationwide public enterprises. Of the 294 institutions, there are only five institutions, including K-water, which has received special recognition as an outstanding institution for 7 consecutive years.

Participation in Public Policy

K-water works very closely with related government organizations such as the Ministry of Land, Transport & Maritime Affairs and Ministry of Environment when establishing water resources related policies and enacting / revising related laws. In addition, employees are being dispatched to various organizations, such as The Office of Government Policy Coordination, Ministry of Land, Transport and Maritime Affairs, and the Anti-corruption & Civil Rights Commission. As well, it is prohibited for legal entities to provide political donations or making donations of any kind under its name is prohibited by K-water.

Anti-competitive Behavior & Legal Compliance

In accordance with monopoly regulations and fair trade law, K-water observes

fair trade. K-water receives regular audits from the Fair Trade Commission to search for any unlawful competitive behaviors or antitrust activities. There have been no items that have been pointed out over the past 4 years, and K-water has in no way been levied fines or non-monetary sanctions due to violations of laws or regulations.

Product Liabilities

Through the Customer Charter, based on a management philosophy that believes the customer's value is K-water's value, K-water is practicing a customer-oriented management system to get a step closer to customers.

Compliance with Customer Health & Safety

K-water strives to continue strengthening our global safety and environmental grades for tap water by qualifying and earning global water safety management techniques called WSP and carbon performance certification for all water plants.

Since 2003, targeted towards all multi-regional purification plants, K-water has been operating a water quality rating system internally on 14 items, including turbidity, residual chlorine, taste, smell and disinfection by-products. The evaluation standard that K-water applies is stricter than legal standards. In accordance to the internal 'Service Implementation Standards,' the frequency of cases of nonconformity in regards to water quality standards is managed by K-water. There were no cases of violations in 2012.

Product & Service Labeling

To satisfy the diverse needs of customers, customers have been segmented into groups, and customized services are provided to customers. A monitoring and feedback system has been established to analyze customer satisfaction. There have been no product and service labeling related regulations that have been violated. For detailed information such as customer satisfaction level assessments, please refer to Customer Satisfaction Management on page 24.

Marketing Communications

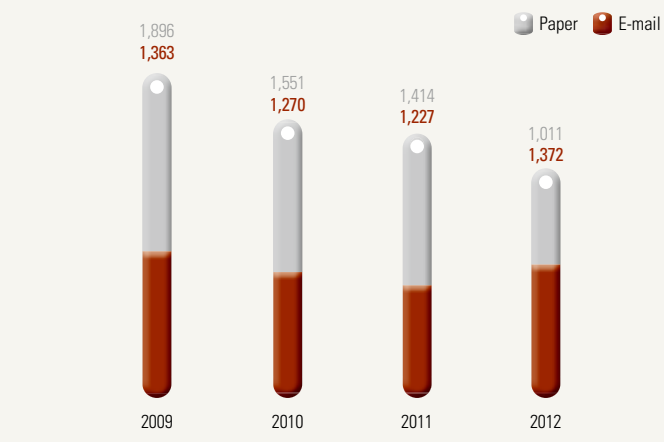
Efforts are taken to provide accurate information to customers so as not to affect their judgment. Related regulations and company-wide work principles are observed, including marketing communications such as advertisements, promotions and sponsorships. For all advertisements, such as property sales advertisements, an internal selection standard is applied in selecting the advertisement medium to ensure impartiality. K-water observes the review regulations and laws of the Korea Advertising Review Board. There have been no cases of any violations related to marketing.

Customer Privacy Protection & Compliance with Supply-related Regulations

Customers' personal information is protected by establishing customer & data base security policies such as Access Restrictions, Authorization Controls and Post Audits. In relation to protecting customer personal information, there have been no cases of complaints by any customers. To expediently process civil complaints, K-water applied stricter internal standards, resulting in K-water achieving a timely processing rate of 100%. Customer complaints are being minimized by observing service implementation targets that have been detailed by work sectors through the revision and implementation of the Customer Charter. K-water is striving to provide answers to concerned customers in a timely manner by operating a dissatisfaction receipt window that is open and accessible at all times on K-water's homepage (Customer's Voice, Bulletin Board). The dissatisfaction items received are utilized as a precious resource to identify management improvement projects. There have been no fines paid as a result of violations of laws and regulations related to products and services.

| Number of Complaints

(Unit : cases)

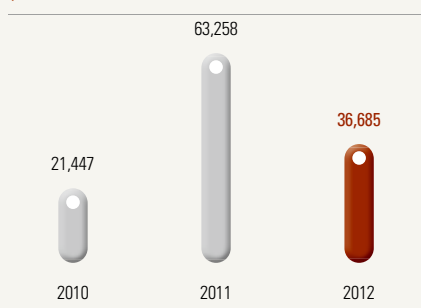


Performances

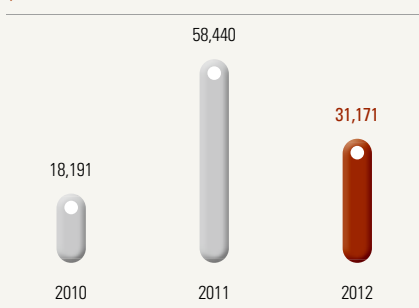
Financial Performance

Sales in 2012 totaled KRW 3.6685 trillion, a 42% decrease from the previous year of KRW 2.6573 trillion as a result of the completion of private investments. However, if private investments are excluded, the sales increased by KRW 260.1 billion from the previous year to KRW 2.6603 trillion, due to the increase in sales of new renewable energy business, complex construction business and water business. Even under the difficult condition of no increase in water use fee for 8 consecutive years and decline in electricity, the fiscal year profit reached KRW 308.3 billion, 5.1% from the previous year, due to the increase in tidal power electricity generated at Sihwa power plant and complex sales. In 2013, it is expected that growth and profit will continue to grow as a result of overseas business expansion, increase in green technology investment, strengthening of climate change competitiveness, customer-centered management and renewable energy as new engine of growth.

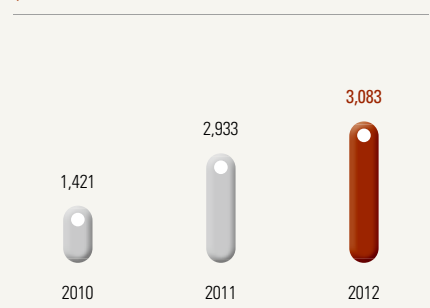
| Revenue (Unit : KRW 100 million)



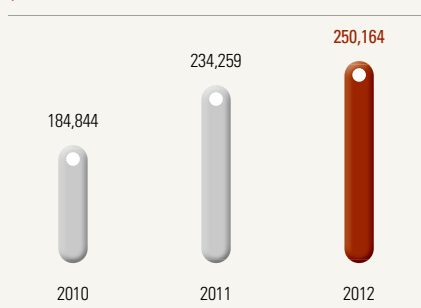
| Cost of Sales (Unit : KRW 100 million)



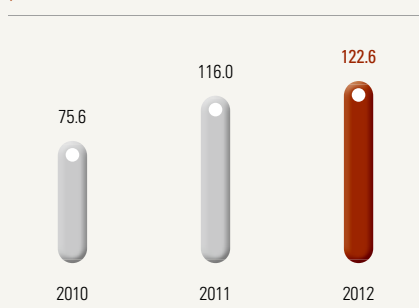
| Current Profit (Unit : KRW 100 million)



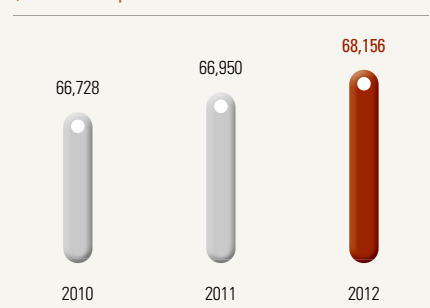
| Asset (Unit : KRW 100 million)



| Debt Ratio (Unit : %)



| Issued Capital (Unit : KRW 100 million)

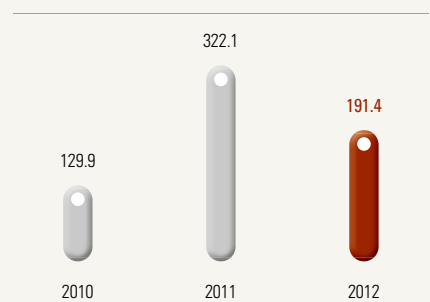
International
Credit Rating

Moody's: **A1**
S & P: **A+**

| Equity Ratio (Unit : %)



| Current Ratio (Unit : %)



※ Since 2011 Korea International Financial Reporting Standards (K-IFRS) applying the applicable Consolidated

Consolidated Statement of Financial Position

39th Term as of December 31, 2012,
38th Term as of December 31, 2011
Company: K-water and subsidiaries

(Unit : KRW)

Category	Current Term		Previous Term	
	Amount		Amount	
Asset		25,016,382,827,140		23,425,915,630,201
I . Current Asset		5,213,014,057,526		4,352,289,094,762
1. Cash and cash equivalents	622,203,045,452		215,555,164,692	
1) Cash	622,203,045,452		215,555,164,692	
(1) Cash on hand	3,563,230		4,890,831	
(2) Other demand deposits	622,199,482,222		215,550,273,861	
2. Current Financial Assets	–		15,740,004,879	
1) Current derivative assets	–		15,740,004,879	
3. Trade and Other Current Receivables	454,954,525,149		468,959,225,346	
1) Short term trade receivables	432,929,585,992		421,435,825,177	
(Allowance for doubtful account)	(18,553,484)		(23,973,870)	
2) Short term other receivables	25,568,943,515		58,011,403,758	
(Allowance for doubtful account)	(9,380,631,833)		(22,311,923,020)	
3) Short term accrued income	5,546,749,560		11,700,941,760	
4) Short term deposit provided	308,431,399		146,951,541	
4. Inventory	4,031,029,242,746		3,503,777,564,609	
1) Raw materials	3,247,295,175		2,554,469,748	
2) Finished goods	4,021,389,025,715		3,495,657,138,869	
3) Supplies	6,392,921,856		5,309,057,274	
4) Other inventory	–		256,898,718	
5. Current Tax Asset	2,528,800		–	
6. Other current non-financial asset	104,824,715,379		148,257,135,236	
1) Short term advanced payments	97,402,479,060		143,386,549,817	
2) Short term prepaid expenses	7,422,236,319		4,870,585,419	
II . Non-current asset		19,803,368,769,614		19,073,626,535,439
1. Other non-current financial assets	94,831,058,427		147,534,027,446	
1) Non-current available-for-sale financial assets	7,740,325,040		5,023,065,000	
2) Long-term loans and receivables	32,922,223,491		23,250,328,330	
3) Non-current derivative assets	49,838,588,146		119,260,634,116	
4) Long-term financial products	4,329,921,750		–	
2. Long-term trade and other non-current receivables	503,354,439,343		451,878,666,076	
1) Long-term trade receivables	371,224,248,848		337,883,045,598	
(Present value discounts)	(6,628,013,593)		(9,089,895,610)	
2) Long-term deposits provided	138,758,204,088		123,085,516,088	
3. Property plant and equipment	1,410,965,991,648		1,416,635,028,312	
1) Land	191,015,729,468		202,067,989,318	
2) Buildings	393,582,575,629		353,629,204,917	
(Government grants)	(884,238,333)		(921,740,333)	
(Accumulative depreciatino)	(121,914,519,917)		(110,306,463,065)	
3) Structure	425,082,472,525		343,442,077,411	
(Accumulative depreciation)	(62,112,915,250)		(49,779,728,848)	

(Unit : KRW)

Category	Current Term		Previous Term	
	Amount		Amount	
4) Machinery	818,844,676,477		704,870,823,239	
(Accumulated depreciation)	(331,455,747,863)		(294,949,623,372)	
5) Ships	11,223,589,595		10,931,409,937	
(Accumulated depreciation)	(6,926,560,966)		(6,042,043,538)	
6) Vehicles	11,544,143,048		11,436,497,691	
(Accumulated depreciation)	(9,512,399,229)		(9,103,485,599)	
7) Office equipment	47,377,510,274		43,608,201,956	
(Accumulated depreciation)	(35,327,542,949)		(31,171,349,452)	
8) Tools and instruments	63,434,689,145		54,803,057,174	
(Accumulated depreciation)	(47,018,874,250)		(42,064,199,778)	
9) Construction in progress	64,013,404,244		236,184,400,654	
4. Intangible assets and good will	17,780,370,355,070		17,043,716,053,645	
1) Computer software	16,439,699,522		17,155,136,724	
2) Copyrights patents and other intellectual property rights	189,564,990		207,344,687	
3) Intangible assets under development	2,515,793,047,526		9,506,763,785,750	
(Government grants)	(6,279,407,084)		(14,805,392,734)	
4) Service operation rights	9,566,444,080,114		7,559,111,942,183	
(Customer contribution)	(7,318,840,625)		(7,804,683,125)	
(Government grant)	(36,636,598,440)		(22,287,180,154)	
5) Other intangible asset	5,731,738,809,067		5,375,100,314	
5. Investment share in affiliate companies	8,333,162,703		8,036,402,773	
6. Deferred tax assets	-		1,210,775,363	
7. Non-current non-financial assets	5,513,762,423		4,615,581,824	
1) Other non-current non-financial assets	5,513,762,423		4,615,581,824	
Total Asset		25,016,382,827,140		23,425,915,630,201
Liabilities		13,777,920,820,395		12,580,936,220,608
I . Current Liabilities		2,722,665,860,916		1,351,279,630,469
1. Trade and other current payables	380,680,931,429		304,567,955,376	
1) Short-term trade payables	12,399,889,398		9,911,130,321	
2) Short-term other payables	167,638,819,620		98,948,010,945	
3) Short-term accrued expenses	188,080,568,177		188,864,417,728	
4) Dividend payables	151,967,050		108,637,660	
5) Other current payables	12,409,687,184		6,735,758,722	
2. Current financial liabilities	1,258,846,201,984		433,209,180,134	
1) Current portion of long term borrowings	45,040,365,000		46,595,540,000	
2) Current portion of bonds payable	1,178,069,500,000		362,941,001,000	
3) Current derivative liabilities	35,736,336,984		23,672,639,134	
3. Current tax liabilities	37,292,750,124		42,079,368,378	
4 .Other current non financial liabilities	1,045,845,977,379		571,423,126,581	
1) Short-term advances from customers	1,008,701,608,001		533,750,184,253	
2) Short-term unearned income	62,068,893		196,510,894	

(Unit : KRW)

Category	Current Term		Previous Term	
	Amount		Amount	
3) Short-term withholdings	27,535,019,247		27,128,849,073	
4) Other current non-financial liabilities current	9,547,281,238		10,347,582,361	
II. non-current liabilities	11,055,254,959,479		11,229,656,590,139	
1. Trade payables and other current payables	11,412,580		-	
1) Long-term accounts payable	11,412,580		-	
2. Non-current financial liabilities	10,750,789,460,733		10,953,144,840,800	
1) Long-term borrowing	330,109,196,252		300,172,561,252	
(Discount on borrowing)	(3,880,270,757)		-	
2) Bonds payables	10,315,649,940,000		10,588,920,021,000	
(Discount on bonds)	(1,784,947,850)		(2,846,669,707)	
3) Non-current derivative product liability	110,695,543,088		66,898,928,255	
3. Non-current non-financial liabilities	13,371,001,000		-	
1) Share of construction deferred profit	13,371,001,000		-	
4. Post-employment benefit obligations	246,087,207,379		275,063,172,914	
1) Present value of defined benefit obligation	275,721,129,812		275,063,172,914	
(Fair value of accumulated asset)	(29,633,922,433)		-	
5. Deferred tax liabilities	36,041,165,005		-	
6. Non-current provisions	8,954,712,782		1,448,576,425	
1) Long-term legal proceedings provision	1,454,677,991		1,448,576,425	
2) Recovery provision	7,500,034,791		-	
Total Liabilities	13,777,920,820,395		12,580,936,220,608	
Equity	11,238,462,006,745		10,844,979,409,593	
I. Contributed Equity	6,815,102,001,933		6,694,440,906,386	
1. Issued capital	6,815,621,385,367		6,694,987,385,367	
2. Discount on stock issuance contributed equity	(519,383,434)		(546,478,981)	
II. Retained Earnings	2,989,659,989,416		2,727,507,488,528	
1. Legal reserves	735,235,385,317		676,475,039,313	
2. Other legal appropriated retained earning	1,943,366,503,129		1,723,289,198,973	
3. Voluntary reserves	-		8,669,215,669	
4. Retained earnings before appropriations	311,058,100,970		319,074,034,573	
III. Elements of Other Stockholders Equity	1,422,319,647,157		1,413,143,637,132	
1. Other capital surplus	732,238,387		732,189,721	
2. Other comprehensive income (loss) accumulated amount	(27,431,588,811)		(36,607,550,170)	
3. Other equity interest	1,449,018,997,581		1,449,018,997,581	
IV. Equity attributable to owners of parent company	11,227,081,638,506		10,835,092,032,046	
V. Non controlling interests	11,380,368,239		9,887,377,547	
Total Equity	11,238,462,006,745		10,844,979,409,593	
Total Equity and Liability	25,016,382,827,140		23,425,915,630,201	

Consolidated Statement of Comprehensive Income

39th Term, January 1, 2012 to December 31, 2012

38th Term, January 1, 2011 to December 31, 2011

Company: K-water and subsidiaries

(Unit : KRW)

Category	Current Term		Previous Term	
	Amount		Amount	
I . Revenue	3,668,445,408,844		6,325,785,989,121	
1. Revenue from sale of goods	2,024,922,934,009		1,708,331,580,693	
2. Revenue from rendering of services	119,071,905,954		94,292,688,268	
3. Revenue from construction contracts	1,426,908,852,625		4,437,056,829,122	
4. Other revenue	97,541,716,256		86,104,891,038	
II . Cost of Sales	3,117,069,718,110		5,843,977,245,238	
1. Cost of sales from sale of goods	1,470,673,158,152		1,218,341,336,395	
2. Cost of sales from rendering of services	112,894,943,014		92,887,965,336	
3. Cost of sales from construction contracts	1,426,982,577,475		4,436,530,362,067	
4. Other cost of sales	106,519,039,469		96,217,581,440	
III . Gross Profit	551,375,690,734		481,808,743,883	
IV . Total Selling and General Administrative Expense	117,048,087,257		114,956,003,673	
1. Contribution to in-house welfare projects	7,300,000,000		4,160,000,000	
2. Salary and wage	31,652,628,516		32,160,554,842	
3. Provision for severance indemnity	3,583,320,234		4,001,211,851	
4. Welfare	10,375,320,353		9,541,312,778	
5. Insurance	1,697,418,481		1,084,318,685	
6. Depreciation	3,357,487,326		5,125,512,263	
7. Amortization expense	1,139,295,324		2,916,872,078	
8. Bad debt expense	4,297,864		(447,074,802)	
9. Commissions	5,899,865,865		5,106,505,999	
10. Advertising expense	9,038,719,151		8,226,357,337	
11. Training expense	4,812,444,731		4,386,383,001	
12. Vehicle maintenance expense	580,595,807		566,475,150	
13. Publication expense	630,281,257		492,190,511	
14. Operating promotion expense	146,337,611		113,743,350	
15. Rental expense	1,133,788,988		1,025,885,129	
16. Communications expense	2,470,173,689		2,635,977,390	
17. Taxes dues	884,450,627		1,225,518,843	
18. Supply expenses	629,294,922		569,059,475	
19. Utility expense	1,311,541,794		1,220,833,086	

(Unit : KRW)

Category	Current Term		Previous Term	
	Amount		Amount	
20. Repair expense	6,349,080,022		5,723,444,432	
21. Ordinary development expense	16,459,999,666		19,232,139,785	
22. Travel expense	1,957,534,695		1,821,916,914	
23. Clothing expense	573,384,070		139,753,902	
24. Research and analysis expense	74,785,716		104,093,636	
25. Sales promotin expense	656,715,880		559,873,678	
26. Sales commissions	2,393,533,559		1,869,702,556	
27. Other selling and administrative expense	1,935,791,109		1,393,441,804	
V. Operating Income (Loss)		434,327,603,477		366,852,740,210
VI. Other Income		296,308,412,685		241,868,440,615
1. ransferred amount of provision of other allowance	–		152,498,016	
2. Other bad debt expenses	286,202,848,313		234,294,704,765	
3. Construction profit	2,161,551,500		–	
4. Rental income	1,613,823,316		903,650,867	
5. Other income	6,330,189,556		6,517,586,967	
VII. Other Expense		3,856,045,144		8,881,378,184
1. Other bad debt expenses	444,729,423		6,372,665,389	
2. Donation	859,071,356		1,015,781,256	
3. Other expense	2,552,244,365		1,492,931,539	
VIII. Other gains (Loss)		(5,296,026,484)		(2,557,316,319)
1. Gains on disposals of property plant and equipment	627,027,256		1,382,160,804	
2. Gain on foreign exchange translations (operating activities)	–		8,528,015	
3. Gains foreign currency transaction (operating activities)	33,785		1,214	
4. Losses on disposals of property plant and equipment	(3,692,237,016)		(354,970,074)	
5. Losses on disposal of intangible asset	–		(313,284,016)	
6. Write-downs of property plant and equipment	(8,248,702)		(2,994,244,527)	
7. Write-downs of intangible asset	(1,788,956,611)		–	
8. Miscellaneous losses	(433,645,196)		(285,507,735)	
IX. Financial Income		195,181,856,787		87,393,183,610
1. Interest income	20,465,874,066		21,574,354,610	
2. Dividend income	–		89,100,000	

(Unit : KRW)

Category	Current Term Amount	Previous Term Amount
3. Gains on evaluation of Derivatives [Note 8]	–	52,647,731,000
4. Gains on foreign currency transaction	171,250,581,000	1,949,999,000
5. Gain on foreign currency transaction	3,465,401,721	11,131,999,000
X. Financial Cost	515,371,168,474	317,627,966,331
1. Interest expense	342,070,586,474	251,810,412,052
2. Losses on evaluation of derivatives	171,250,581,000	1,949,999,000
3. Losses on transaction of derivatives	2,050,001,000	11,131,999,000
4. Losses on foreign currency translations	–	52,647,731,000
5. Losses on foreign currency transactions	–	87,825,279
XI. Gains (Loss) from Equity Method Affiliates	394,863,989	219,309,413
1. Gains on evaluation of interests in affiliates	394,863,989	486,497,228
2. Valuation loss on investments in associates	–	(265,681,003)
3. Losses on disposal of interests in affiliate	–	(1,506,812)
XII. Profit (Loss) Before Tax	401,689,496,836	367,267,013,014
XIII. Income Tax Expense	93,394,144,190	73,999,842,319
XIV. Current Profit (Loss)	308,295,352,646	293,267,170,695
XV. Other Comprehensive Income (Loss) After Tax	13,385,790,656	(7,250,941,234)
1. Other comprehensive income not reclassified as current income/loss	5,926,273,713	1,265,437,656
1) Insurance purpose income/loss in wage system	5,926,273,713	1,265,437,656
2. Other comprehensive income reclassified as current income/loss	7,459,516,943	(8,516,378,890)
1) Gains (Losses) on cash hedge flow	16,170,579,599	(7,885,417,536)
2) Gains (Losses) from sales of saleable financial assets	7,837,189	–
3) Gains (Losses) on overseas business	(8,644,545,236)	(705,410,556)
4) Share of other comprehensive income/loss on equity method affiliates	(74,354,609)	74,449,202
XVI. Comprehensive Income	321,681,143,302	286,016,229,461
XVII. Profit (Loss) Attributable	308,295,352,646	293,267,170,695
1. Profit (loss) attributable to owners of parent company	308,247,268,872	293,333,492,046
2. Profit (loss) attributable to non controlling interests	48,083,774	(66,321,351)
XVIII. Comprehensive Income Attributable	321,681,143,302	286,016,229,461
1. Comprehensive income attributable to owners of parent company	323,349,503,944	286,595,609,924
2. Comprehensive income attributable to, non-controlling interests	(1,668,360,642)	(579,380,463)

Consolidated Statement of Cash Flow

39th, January 1, 2012 to December 31, 2012
38th, January 1, 2011 to December 31, 2011
Company: K-water and subsidiaries

(Unit : KRW)

Category	Current Term		Previous Term	
	Amount		Amount	
I . Cash flow from operating activities	966,894,253,998		274,071,126,140	
1. Current year profit	308,295,352,646		293,267,170,695	
2. Adjustments to reconcile profit (loss)	1,077,351,276,905		902,022,788,853	
1) Amortization expense	449,027,287		6,372,665,389	
2) Depreciation expense	75,676,478,942		59,523,238,077	
3) Depreciation on intangible asset	538,419,761,294		492,925,369,890	
4) Retirement pension	37,330,284,551		38,088,919,470	
5) Provisions	3,322,236,583		–	
6) Gains on affiliated company evaluation (Equity Method)	(394,863,989)		(486,497,228)	
7) Loss on affiliated company evaluation (Equity Method)	–		265,681,003	
8) Interest income	(20,465,874,066)		(21,574,354,610)	
9) Interest expense	342,070,586,474		251,810,412,052	
10) Income tax	93,394,144,190		73,999,842,319	
11) Allowance for bad debt	–		(447,074,802)	
12) Loss on sale of tangible asset	3,692,237,016		354,970,074	
13) Gain on sale of tangible asset	(627,027,256)		(1,382,160,804)	
14) Allowance for loss in tangible asset	8,248,702		2,994,244,527	
15) Loss on sale of intangible asset	–		313,284,016	
16) Allowance for loss in intangible asset	1,788,956,611		–	
17) Loss on sales of affiliated company	–		1,506,812	
18) Loss on sale of derivative products	171,250,581,000		1,949,999,000	
19) Gain on sale of derivative products	–		(52,647,731,000)	
20) Loss on sales of derivative products	2,050,001,000		11,131,999,000	
21) Provisions	(609,713,534)		(152,498,016)	
22) Loss on foreign currency translation	–		52,647,731,000	
23) Gains on foreign currency translation	(171,250,581,000)		(1,949,999,000)	
24) Gains on foreign currency transaction	(2,050,001,000)		(11,131,999,000)	
25) Donation	31,512,577		–	
26) Other	3,265,281,523		(584,759,316)	
3. Gain (Loss) on asset (liabilities) related to operating activity	128,294,086,866		(646,352,530,528)	
1) Decrease (Increase) in Trade Receivables	68,012,831,467		(13,904,764,560)	
2) Decrease (Increase) in Inventory Asset	(408,839,578,907)		(709,957,281,411)	
3) Decrease (Increase) in Bonds related to operating activity	66,815,122,028		(126,844,449,459)	
4) Decrease (Increase) in Long-term Trade Receivables	(78,890,311,411)		–	

(Unit : KRW)

Category	Current Term Amount	Previous Term Amount
5) Decrease (Increase) in Trade Payables	2,796,308,344	2,746,645,877
6) Decrease (Increase) in related other payables	536,887,662,381	213,109,716,761
7) Change in liability for employee wage	(58,487,947,036)	(11,502,397,736)
4. Interest paid	16,501,530,356	10,417,327,770
5. Interest received	(495,533,737,996)	(244,871,959,596)
6. Income tax paid	(68,014,254,779)	(40,411,671,054)
II . Cash flow from investing activities	(1,360,763,016,331)	(4,482,046,147,241)
1. Acquisition of property, plant, and equipment	(66,109,233,736)	(258,548,325,469)
2. Proceeds from disposal of property, plant, and equipment	904,909,152	1,786,361,845
3. Receipt of government subsidy	7,583,500,000	7,384,000,000
4. Increase in long-term financial product	(4,329,921,750)	–
5. Acquisition of intangible asset	(1,293,356,850,132)	(4,230,090,658,319)
6. Proceeds from intangible asset	335,128,715	15,096,484
7. Acquisition of available-for-sale financial assets	(2,717,260,040)	(1,648,065,000)
8. Proceeds from disposal of available-for-sale financial assets	–	661,990,792
9. Increase in long-term loan	(3,068,255,193)	–
10. Decrease in long-term loan	2,458,133,511	207,961,426
11. Increase in deposit	(67,294,303,067)	(148,000,000)
12. Decrease in deposit	51,460,135,209	–
13. Receipt of construction contribution	13,371,001,000	–
14. Acquisition of investment asset from affiliated or related companies	–	(1,666,509,000)
III . Cash flow from financing activities	800,516,643,093	4,246,506,720,730
1. Payoff of current long-term liability	(360,891,000,000)	–
2. Calculation of derivative products	(10,945,000,000)	59,909,374,000
3. Long-term borrowing	71,096,729,243	10,083,876,252
4. Repayment of long-term borrowing	(46,595,540,000)	–
5. Issue of private loans	1,076,050,000,000	4,583,475,347,518
6. Repayment of bonds	–	(396,189,318,840)
7. Cash investment of government or local government	120,349,458,400	9,815,840,150
8. Increase in non-controlling interests(capital increase in affiliates)	3,161,400,000	–
9. Payment of dividend	(51,709,404,550)	(20,588,398,350)
IV . Increase in cash or cash equivalent	406,647,880,760	38,531,699,629
V . Cash and cash equivalent, January 1	215,555,164,692	177,023,465,063
VI . Cash and cash equivalent, December 31	622,203,045,452	215,555,164,692

Statement of Appropriations of Retained Earnings

39th January 1, 2012 to December 31, 2012
38th January 1, 2011 to December 31, 2011
Company: K-water

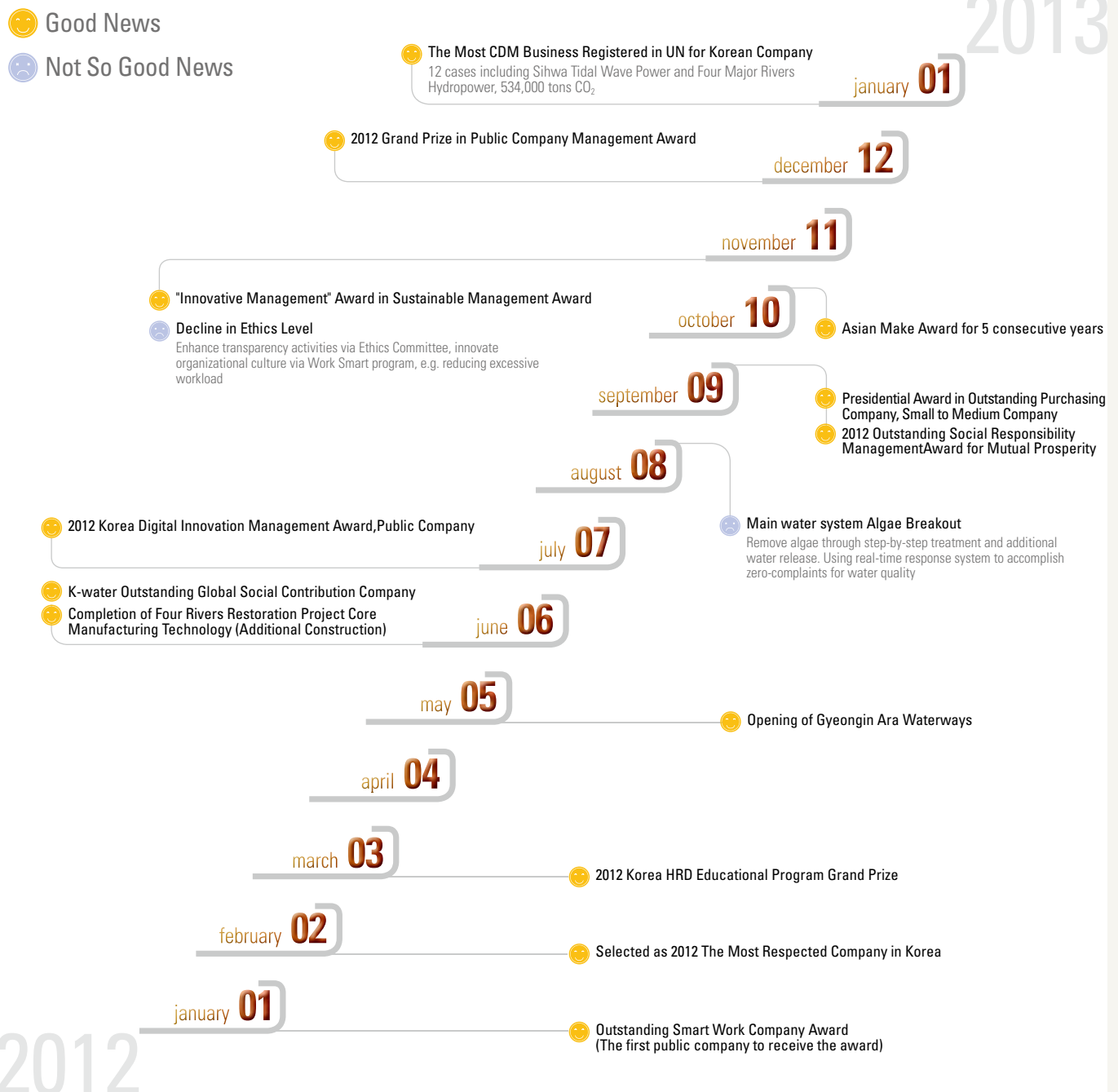
(Unit : KRW)

Category	Current Term	Previous Term
	Amount	Amount
I . Retained earnings before appropriations	313,991,715,844	322,189,476,188
Balance at beginning of year	–	27,122,308,510
Profit for the year	308,065,442,131	293,801,730,022
Actuarial gains and losses	5,926,273,713	1,265,437,656
II . Voluntary reserve		8,669,215,669
Reserve for investment in social overhead	–	8,669,215,669
III . Total(I +II)	313,991,715,844	330,858,691,857
IV . Appropriations	308,065,442,131	330,858,691,857
Legal reserve	61,613,088,426	58,760,346,004
Amortization of discount on stock issuance	255,969,084	311,637,147
Other legal reserve	192,161,456,731	220,077,304,156
Dividends	54,034,927,890	51,709,404,550
V . Unappropriated retained earnings carried forward to the next year	5,926,273,713	–

Performances

Positive & Negative Information

K-water is maintaining a balance in disclosures by providing both positive and negative news to allow readers to objectively assess the overall sustainable management performance of K-water.



GRI Report Index

Index	Contents of Index	K-water applied index	Global Compact	Page	Reporting rate
Strategy and analysis					
1.1	Vision and Strategy	Message, Strategy and Vision		4~5	●
1.2	Major effects, Threatening factors and Opportunity factors	Continuance possibility factors, Ethics, Crisis management		10~13	●
Structure Profile					
2.1	Structure Name	Company Name		1	●
2.2	Major brands, products and services	Major brands, products and services		1, 14~15	●
2.3	Organizational structure of reporting organization, including key divisions, operating companies and joint companies	Structure of major business departments, financing companies, etc		1	●
2.4	Location of head office	Location of head office		1	●
2.5	Number of countries reported structure is operating in, Names of countries that have detailed relations with the problem of continuance possibility handled in the report	Number of businesses, number of overseas business companies		1	●
2.6	Characteristics and legal form of owned structure	Financial provider structure, shares structure		22	●
2.7	Subject market	Subject market and customer categories		26~27	●
2.8	Subject market and customer categories	Number of executives, sales, total assets, total debts		1	●
2.9	Important changes in size, structure or owned structure during reported period	No major changes		1	●
2.10	Awards during reported period	Breakdown of overseas awards and certificates		2	●
Variables in reporting					
3.1	Report period	2012, part of 2013		2	●
3.2	Date of most recent report	August, 2012		2	●
3.3	Report cycle	Annual		2	●
3.4	Inquiries on report and related areas	Report inquiries		2	●
3.5	Report contents definition process	Subject readers and stakeholders		2	●
3.6	Report border	Korean businesses and overseas business accomplishments		2	●
3.7	Detailed restrictions of report range or report border	Accomplishments of overseas business		2	●
3.8	Reporting standard of things that may have a large effect on comparing possibilities according to period or structure, such as collaborating companies, subsidiary companies, rented facilities or outside duties	Same as period of seven investing companies Accounting Equity Method or Cost Method applied		107	●
3.9	Data measurement methods including presumptions and methods that support accomplishment index and other predictions adapted in information collection process, and calculation standard	Financial, environmental, social data measurement technique and calculation standard		107	●
3.10	Effects of re-stating information presented in last report and explanation of reason for re-statements	No change		2	●
3.11	Big change in report range, border and measurement method compared to last report	Change in Korean place of business and overseas projects		2	●
3.12	Index that shows the position of standard notices in the report	GRI Report Index		100~103	●
3.13	Policies and current activities to find an outside verifier	Third Party's Assurance Report		104~105	●

Index	Contents of Index	K-water applied index	Global Compact	Page	Reporting rate
Ownership structure, responsibility, participation					
4.1	Dominating structure of organization	Authority, structure and responsibility of Board of Directors		22	●
4.2	Chairman Board of Directors and executive	Appointed non-executive director serves as chairman of board of directors		22	●
4.3	In case the Board of Directors is unified, the Board of Directors states the number of independent people who are not executives	Permanent and temporary directors		22	●
4.4	A mechanism where stockholders and employees give advice to or present a direction for the Board of Directors	Operation of Youth Board of Directors consisting of Employees		22	●
4.5	Relationship between compensation of directors, high administrators and executives, and accomplishments of the organization	Evaluation and relation of Board of Directors Operation Results		22	●
4.6	Process to prevent conflict of understanding within the Board of Directors	Strengthening of Fast and Sufficient Pre-Deliberation		22	●
4.7	Process to decide qualifications of Board of Director members and standard of expertise to support financial/environmental/social strategies	Permanent director and Outside director Appointment Procedure		22	●
4.8	Mission/core values statement, action outline and rules made internally in relation to financial/environmental/social accomplishments and activities	Ethical Outline, Environmental Management Course, Innovation vision Mission		108-109	●
4.9	Process of the Board of Directors understanding financial/environmental/social activities and directing management	Board of Directors Operation Procedure		22	●
4.10	Board of Directors financial/environmental/social accomplishments evaluation process	Government analysis of operation results, Accomplishment yearly salary graded		22	●
4.11	Explanation of prevention rules and selection of approach method and selection	Prevention Rules and Approach Methods		22-31	●
4.12	Membership or support of outside initiatives such as financial/environmental/ social fields and rules	Declaration to Comply with UN Global Compact		110	●
4.13	Status of Korean and overseas committees and policy facilities membership	Members domestic and foreign committee and policy facilities activities		2	●
4.14	List of participating stakeholder groups	Stakeholders group		26-29	●
4.15	Participating stakeholders identification and selection standard	Stakeholders identification and selection		26-29	●
4.16	Status of Stakeholders Participation method	Method of Stakeholders Participation		26-29	●
4.17	Points of Interest presented by stakeholders and counteraction methods	Stakeholders' Points of Interest and Counteractive Methods		26-29	●
Financial accomplishments index					
Public announcement for management approach method				14-15	●
EC1	Direct creation and division of economic value	Creation and division of economic value		76	●
EC2	Threat to business activities due to financial effect of change in climate, and threats and opportunities	Counteraction to change in climate and CDM project		76	●
EC3	Pension support range	Retirement fund management, retirement program		76	●
EC4	Government support fund accomplishments	National Treasury support fund		76	●
EC5	Salary of new employees compared to legal minimum wage at major business places	Salary of new employees compared to legal minimum wage		76	●
EC6	Location purchase policy, actions and ratio at major business places	Local purchase policy		77	●
EC7	Employment of local personnel priority at domestic major business field offices and local high executives ratio	Employment of local personnel at domestic field offices		77	●
EC8	Service support and infrastructure investments that prioritize public benefit, and its effects	Investment in social indirect fund facilities, Improvement of existing dam environments		77	●
EC9	Awareness and explanation of indirect financial wave effects	Economic activation support for dam surrounding areas		77	●
Environmental performance index					
Public announcement for management approach method				12	●
EN1	Weight or volume standard materials used	Material balance by tap water Ccarbon reduction label		77	●
EN2	Ratio of reusable materials used	Rate of reusing sludge and construction waste	7	80	●
EN3	Direct energy use according to 1st stage energy sources	Diesel, kerosene, LPG, NG usage amount		77	●
EN4	Indirect energy use according to 1st stage energy sources	Amount of electricity used from outside purchase		77	●
EN5	Amount of energy reduced due to saving and efficiency	Amount of reduction from using energy saving program	8	78	●
EN6	Efforts to supply energy efficient or reusable energy based products and services, and amount of energy reduced by this business	Purchase of energy saving products, energy reduction performance	9	78	●
EN7	Indirect energy reduction business and accomplishments	Efforts to reduce energy use, turning off the PC during lunch hour, 5-day car cycle, other energy saving efforts	8	78	●

Index	Contents of Index	K-water applied index	Global Compact	Page	Reporting rate
EN8	Total collection amount by supply source	Total collection amount by filtration plant		77	●
EN9	Water sources that were largely affected by water taken	Sources worried to change the ecology from water taken	8	78	●
EN10	Total amount and ratio of reusable and reused water	Amount of water material used	8	78	●
EN11	Location and size of land owned, rented and managed around protection areas and areas where the biological value is high	Environment-friendly water resources facilities, Diverse biological conservation facility and space	8	78	●
EN12	Effects of activities, products and services in protection areas and areas where the biological value is high on biological variety value	Monitoring environmental change in business areas	8	78	●
EN13	Protected or restored habitat	Organism habitat environment and conservation for environment cultural heritage	8	78	●
EN14	Biological variety management strategy of protected or revived land, current actions and future plans	Biological variety management strategy	8	78	●
EN15	Number of national endangered species on IUCN Red List living in business affected areas, and endangered rate	Awareness of endangered species according to major dams	8	78	●
EN16	Total discharge of direct and indirect greenhouse gases	Amount of greenhouse gases discharged according to direct or indirect energy consumption		79	●
EN17	Other indirect greenhouse gases discharge amount	Amount of greenhouse gases discharged due to office	9	79	●
EN18	Greenhouse gases reduction business and accomplishments	CDM projects		79	●
EN19	Amount of ozone destructing substances discharge	No discharge of ozone destructing substances		79	●
EN20	Amount of discharge to the atmosphere of NOx, Sox and other major contaminating substances	Amount of discharge to the atmosphere through energy consumption		79	●
EN21	Waste water discharge amount and water quality according to final place of discharge	Quantity and quality of water discharged from purification plants and water		79	●
EN22	Sewage treatment sites	Amount of waterworks sludge and construction wastes		80	●
EN23	Waste discharge amount according to form and treatment method	No leakage accidents		80	●
EN24	Ration between waste transported/Brought/Processed and Waste sent Overseas as defined within Annex I, II, III, VIII of Basel Accord	No waste sent overseas		80	●
EN25	Water areas affected by waste water discharge of organization and name of land, size, protection situation and biological diversity	Conservation of ecological environment and water quality of discharged water	8	80	●
EN26	Reduction of products and services on environment activities and accomplishments	Water contamination prevention activities and environmental management accomplishments	8	81	●
EN27	Products sold and ratio of reusable packaging	No relation because of product characteristics	7		N/A
EN28	Number of fines and non-financial restraints from environmental law violations	Abiding by environmental laws and preventing accidents	8	81	●
EN29	Important environmental effect of moving products and basic materials and executives travels	Environmental effects depending on movement of executives		81	●
EN30	Environmental protection expenditure and investment total	Environmental protection expenditure and investment total		81	●
Labor accomplishments index					
Public announcement for management approach method				13	●
LA1	Form of employment, employment contracts and personnel status according to location	Form of employment, employment contracts and personnel status according to location		81	●
LA2	Number and ratio of people that left the company	Number and ratio of people that left the company		82	●
LA3	Privileges of full-time employees that are not given to part-timers	Privileges of full-time employees		82	●
LA4	Ratio of employees that are subjects of group negotiations	Ratio of employees that are subjects of group negotiations	3	83	●
LA5	Minimum period for reporting important change in business	Reporting period according to group agreement		83	●
LA6	Employee ratio represented by labor union joint Health and Safety Committee	Replace with Joint labor-management conference	3	83	●
LA7	Number of injuries, work diseases, days lost, and work related disasters	Rate of industrial disasters and diseases		83	●
LA8	Education, training, counseling, prevention and threat management programs to support seriously diseased employees, their families and local residents	Operating the problem consulting center for officers and employees and the filial duty welfare center for inhabitants		83	●
LA9	Welfare and Safety conditions, formal subject of negotiations with joint labor management conference	Joint labor-management conference agenda	3	83	●
LA10	Average education hours per day according to form of employee	Average training hours per year according to employee grade		84	●
LA11	Duties education and lifelong education programs for continuous employment and retiring employees support	Evergreen program for retirees		84	●

Index	Contents of Index	K-water applied index	Global Compact	Page	Reporting rate
LA12	Percentage of employees receiving regular performance and career development reviews	Employees receiving performance and reviews	6	84	●
LA13	Structure of Board of Directors and employees	Status of executives structure	6	22, 84	●
LA14	Ratio of basic salary of newly recruited men and women personnel according to employee range	Ratio of basic salary of newly recruited men and women personnel	6	84	●
LA15	Re-instatement and Maintenance Rates by Sex following Child Care Leave	Re-instatement Rates following Child Care Leave	6	63	●
Human rights accomplishments index					
HR1	Number and ratio of major investing agreements that include human rights protection clauses or that passed human rights evaluation	Contracts and agreements including human rights evaluation	2	84	●
HR2	Human rights evaluation ratio of major supply companies and contract companies	Method of evaluating human rights of supplying companies, etc.	2	84-85	●
HR3	Employee training on duties related human rights policies and processes	Human rights related education (Sexual harassment prevention education)	2	85	●
HR4	Total discrimination cases and related handling	Management and counseling through executives' difficulties handling system	1	85	●
HR5	Duty fields evaluated to have a chance of serious violation of association or group negotiations freedom, and management to guarantee such rights	Rights and benefits protection for women and the disabled, etc	1	85	●
HR6	Business fields with a high chance of child labor and management to stop child labor	Restraint against employing youths (Employment rule)	5	85	●
HR7	Business fields with a high chance of forced labor and management to stop such labor	Forced labor prohibition rule (Korean labor standard law)	4	85	●
HR8	Ratio of security personnel that have certified the human rights policy and process education	Education accomplishments of human rights related security personnel	1	85	●
HR9	Number of local residents rights violation and related management	Civil treatment of local residents	2	85	●
HR10	Number and proportion of businesses subject to human rights review and impact assessment	Gathering of local resident opinions by conducting environmental impact assessment	1	86	●
HR11	Number of human rights issues that were registered/processed/resolved through official resolution mechanism	Operation of consultation window	1	64-65	●
Social accomplishments index					
S01	Characteristics, range and effect of program that evaluates local social effects from beginning, during and finishing stages of duties	Environmental evaluation according to stages, aftereffects evaluation		86	●
S02	Number and ratio of business units analyzed to have corruption risk	Inspection of high positions or departments with high chance of corruption through department purity evaluation	10	87	●
S03	Ratio of employees who received anti-corruption policy and process related education	Rate of ethical management training certification	10	87	●
S04	Management of corruption cases	Handling of corruption cases	10	87	●
S05	Position on public policies, establishment of public policies and participation in lobbying	Participation in public policies, such as carrying out government policies		87	●
S06	Total amount donated to parties, politicians or related facilities according to nation	Donations using the K-water name is prohibited by law		87	●
S07	Number of unfair competition activities and monopoly actions that were dealt with legally, and the results	Regular Free Trade Commission inspections	10	87	●
S08	Number of cases of fine and non-financial restraint due to violation of law or regulations	Number of violation cases and fines		87	●
Product performance index					
PR1	Stage of deliberation of life cycle that evaluates health and safety effects of product and service, ratio of major products and services that actually carry out the evaluation	Introducing 5-Star water purification plant & CO labelling, and advanced water purification plant, the evaluating system of water purification level		60-61, 77	●
PR2	Number of violation of customer health and safety effects related restraints and voluntary rule violation cases in product and service life cycle	Efforts to abide by laws related to health and safety of customers		88	●
PR3	Necessary product and service information type for process, ratio of products and services with such information	Efforts to provide information on tap water quality, etc		88	●
PR4	Number of product or service information labeling related restraint voluntary violation	Efforts to provide information on tap water quality, etc		88	●
PR5	Customer satisfaction related activities including customer satisfaction evaluation survey results, etc	Customer satisfaction research results	8	88	●
PR6	Marketing communications such as advertisement, promotion, sponsorship restraints, standard and voluntary rule abiding program	Abiding by marketing related restraints		88	●
PR7	Number of marketing communications such as advertisement, promotion, sponsorship restraints, standard and voluntary rule violation cases	Efforts to abide by promotion related laws		88	●
PR8	Number of complaints on violation of customer personal information protection and customer data loss	Number of Internet civil cases and breakdown		88	●
PR9	Total fine from violation of laws and regulations on product and service supply	Efforts to abide by service supply laws		88	●

Performances

To the management of K-water

Independent Assurance Report

We have performed to provide independent assurance services over selected aspects of the K-water Sustainability Report 2013 (the "Report"). The management of K-water is responsible for preparing the Report. Our responsibility is to carry out a limited level of assurance engagement on the information presented in the Report and to provide our conclusions.

We conducted our assurance engagement in accordance with ISAE 3000 ("International Standard on Assurance Engagements 3000"), issued by the International Auditing and Assurance Standards Board (IAASB), and AA1000AS ("AA1000 Assurance Standard"). The extent for a 'limited level' of assurance is less than that of a 'reasonable' assurance engagement and therefore a lower level of assurance is provided for the Report. An engagement is limited primarily to the inquiries of company personnel and review procedures applied to the data K-water provided. The scope of our work was restricted to performance during January 1, 2012 to December 31, 2012 and partially from the year of 2013 only. Information relating to the earlier periods has not been subject to our assurance.

Our work included the following activities.

- Interviews with the personnel responsible for the aggregating and reporting of the subject data.
- An evaluation of the design and operation of the systems and methods used to collect and process the subject data.
- Reviews on the subject data through inquiries and analytical procedures.
- Visit to the head office and one local unit for a limited testing of the subject data aggregation and preparation.
- Verify the subject data to check that they were correctly reported from appropriate and reasonably balanced sources.

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In conclusion, nothing has come to our attention that causes us to believe that the subject data referred to above is not fairly stated, in all material respects, in accordance with the reporting principles of K-water.

- K-water applies a reporting practice in accordance with the GRI G3.1 reporting principles and Construction and Real Estate Sector Supplements to engage stakeholders on material aspects related to sustainability management performance.
- K-water has applied detailed procedures to identify, collect, compile, and validate the data for 2012.
- The contents of the Report and the data for 2012 have coincided with quantitative data aggregated to the above procedure and have been adequately applied to the respective pages in the Report. Furthermore, through the validation results of the qualitative reporting relevant to the performance period of the report, it has been confirmed that K-water's performance and commitment for sustainable management have been adequately reflected

July 24. 2013

Deloitte Anjin LLC

CEO

李在述

ISO 26000

ISO 26000 is an international standard guideline that integrates social responsibility across an entire organization based on 7 core subjects founded upon the basic principles of social responsibility. The contents of K-water according to the 7 core subjects can be found at the pages described below.

Core Subject	Issues	Page
Organizational governance	Organizational governance	4-5, 10-13, 22
Human rights	Due diligence	84-85
	Human rights risk situations	84-85
	Avoidance of comp	84-85
	Resolving grievances	64-65, 83
	Discrimination and vulnerable group	64-65, 85
	Civil and political rights	85
	Economic, social and cultural rights	85
	Fundamental principles and rights at work	64-65, 85
Labour practices	Employment and employment relationships	81-82, 108
	Conditions of work and social protection	69, 83
	Social dialogue	69, 83
	Health and safety at work	68-69, 83
	Human development and training in the workplace	68, 84
The environment	Prevention of pollution	56-57, 78-81, 108
	Sustainable resources use	39, 41, 46, 77-78, 80
	Climate change mitigation and adaptation	39, 54-55, 76, 79
	Protection of the environment, biodiversity and restoration of natural habitats	58-59, 78
Fair operating practices	Anti-corruption	23, 87-88, 108
	Responsible political involvement	76, 87
	Fair competition	87, 108
	Promoting social responsibility in the value chain	64-65, 76, 84-85
	Respect for property rights	86
Consumer issues	Fair marketing, factual and unbiased information and fair contractual practices	88
	Protecting consumers' health and safety	60-61, 88, 109
	Sustainable consumption	56-57, 77-78
	Consumer service, support, and complaint and dispute resolution	24-25, 88
	Consumer data protection and privacy	88
	Access to essential services	70, 88
	Education and awareness	71, 88
Community involvement and development	Community involvement	70-73, 77
	Education and culture	70-73
	Employment creation and skills development	70-71, 77
	Technology development and access	77
	Wealth and income creation	76-77
	Health	70, 72, 83
	Social investment	70-71, 77

Performances

Publishing the Sustainability Report

Efforts were taken to reflect the voices of our internal and external stakeholders when publishing this Report, and to ensure credibility, assurance on the contents of this report was provided by a third party.

The main objective of this Sustainability Report is to provide stakeholders with credible transparent corporate information and to gain the respect of the stakeholders. Matters of concern of the internal employees were accumulated through a survey, while those of the stakeholders were gained through advisors. The issues of concern were evaluated for their materiality and through the analysis of the evaluations, major issues of concern were established. K-water has tried to provide full disclosure of the performance indicators outlined by the G3.1 guideline, which is the international standard.

Scope of the Performance Indicator Report

The scope of report includes the status of sustainable management and performance on performance results of 24 domestic and 16 overseas work sites, including K-water. Since the companies that K-water is investing in uses the same accounting period as K-water, it is possible to make comparisons regardless of period or organization. Moreover, either equity method or cost method is used based on ownership shares.

Performance Data Reporting Standard

K-water has made every effort to follow the reporting principles stated in the GRI G3.1 guidelines in the preparation this Report. Each of the economic, environmental and social performance data was derived based on the indicator covenants attached to the G3.1 guidelines. Environmental




related data was mainly quoted from data derived from the Environmental Performance Evaluation (EPE) electronic system developed as a computer-based system in 2006 and the Inventory system developed in 2010. Financial data was derived from audited financial statements and statements of accounts. Information related to society and other sectors were directly received from related departments. K-water has tried to provide greater clarity by providing 3~4 year performance indicator data, and ratios and absolute data at the same time.

Efforts for Continuous Enhancement

It has been already 9 years since the first publication of report in 2005. During this period, we have made much effort in order to understand expectation and interest of our stakeholders. In the future, we will continue to do our best to accommodate opinions of our stakeholders and create a report that transparently reflects K-water's sustainable management in accordance with GRI Guideline.

G3.1 Guideline Application Standard

K-water has tried to satisfy the requirements of the 'A' standards outlined in the GRI G3.1 Guideline for the "2013 Sustainability Report." An independent 3rd party assurance agency, Deloitte Anjin LLC, has verified that this report is compliant with 'A+', GRI G3.1 Guidelines.

Report Application Level		C	C+	B	B+	A	A+
Standard Disclosures	Profile Disclosures 	Report on : 1. 1 2. 1-2, 10 3. 1-3, 8, 3.10-3.12 4. 1-4, 4, 4, 14-4, 15	Report Externally Assured	Report on all criteria listed for Level C PI: 1. 2 3. 9, 3, 13 4. 5-4, 13, 4, 16-4, 17	Report Externally Assured	Same as requirement for Level B	Report Externally Assured
	Disclosures on Management Approach 	Not Required		Management Approach Disclosures for each Indicator Category		Management Approach disclosures for each Indicator Category	
	Performance Indicators & Sector Supplement Performance Indicators 	Report fully on a minimum of any 10 Performance Indicators, including at least one from each of social, environment.**		Report fully on a minimum of any 20 Performance Indicators, at least one from each of : economic, and environment, human right, labor, society, product responsibility.***		Respond on each core and Sector Supplement* indicator with due regard to the materiality Principle by either: a) reporting on the indicator or b) explaining the reason for its omission.	

Performances

Code of Ethics Preamble, Green Management Principles, Customer Charter Preamble, Mission Statement for Innovative Vision

Code of Ethics Preamble

Korea Water Resources Corporation is an organization for Korean people to develop, maintain and preserve Korea's water resources to make sure they are sustainable environmentally, economically and socially, and to provide them with the best products and services in order to contribute to improved quality of life and national development. With this pride and confidence, we commit ourselves to the following code of ethics to be reborn as a world-renowned corporation specializing in water in this era of water in the 21st century.

To accomplish our mission with a creative and open-to-challenge mind and do our given work with honest and fair attitudes and to make efforts for transparent management.

To commit ourselves to eco-friendly management with a keen awareness that the environment is an invaluable asset to hand down to the next generation and a foundation for a healthy and pleasant life.

To provide customers with the best products and services to ensure customer satisfaction and value-oriented management to live up to customer-first principles.

To respect local traditions and cultures, contribute to community development and enrich the lives of community members with due obligation as a community member.

To observe moral and legal values, respect market orders of free competition, and pursue fair competition.

To respect individual persons without any discrimination and respect differences and creativity.

To develop a partner relationship between union and management based upon trust and harmony with a strong sense of unity to pursue mutual prosperity.
Management.

※ For detailed information on ethical principles and the employee code of conduct, please refer to our website (www.kwater.or.kr), Ethical Management.

Green Management Principles

K-water is keenly aware of the need for the utmost effort for sustainable development in harmony with nature for more pleasant and better-to-live-in environment. In this vein, therefore, K-water, as a corporation specializing in water, the origin of life, announces the following green management principles in order to be reborn as a green corporation loved and trusted by people.

To take the lead in preserving clean water and air and healthy natural environment.

To predict the effects of water resources development and management on the environment and consistently pursue the preservation of the eco-system, prevention of pollution and environmental improvements in order to make sure that our activities are in harmony with environmental preservation.

To establish sound consumption culture of cutting down on supplies and energy and recycling them and always be alert against environmental destruction out of carelessness.

To accommodate people's opinions as much as possible in making environmental related plans and promote trust and transparency of our business by opening related information and materials.

To bear the primary obligation of preventing environmental pollution in advance, make efforts to settle problems in case pollutions take place, and bear in mind that words put into practice are the fundamentals of corporate ethics.

To constantly offer employees environmental training and focus on research and development for environmental preservation and improvement to ensure that our activities for the environment suit codes of ethics.

All the employees of K-water hereby declare that we do our utmost to guarantee that future generations will live in a pleasant environment by putting the principles into practice.

Customer Charter Preamble

Based on a management philosophy that 'Values for Customers are Values for Use', we are committed to the following to practice customer-oriented management and business practices.

To establish credibility from our customers, we will stably provide high quality water and land

To guarantee our customers' safety and property rights, we will provide necessary information and services even before our customers' request it.

To continuously improve customer service, we will regularly collect opinions from our customers by carefully listening to our customers' advice and suggestions.

To maximize customer benefits, we will strive to achieve management efficiencies and carry-out duties without discrimination towards all customers.

To be able to achieve these objectives, we will establish the highest performance standards. We also promise to abide by these standards.

Mission Statement for Innovative Vision

To provide people with clean and safe water, protect their lives and property from disasters caused by water, to be reborn as the best water service organization through change and innovation, K-water declares the following:

To make customer satisfaction top priority in management and rectify existing practices, systems and values to be customer-driven.

To do our work with honest and fair attitudes without deviating from conscience, common sense and law to be a trustworthy public corporation, and to actively participate in socially beneficial activities to engage in the community.

To secure a world-level competitive edge to achieve our vision with confidence and passion defying changes and establish a sustainable and stable foundation for growth.

To raise awareness of the importance of the environment for a healthy life and sustainable growth of the future generations and to make efforts to preserve the environment.

K-water will concentrate on devoting itself to growing into a business that works well, has a competitive edge and is loved by people by putting the above mentioned statements into practice.

UN Global Compact 10 rules



The principles of Global Compact are based on the following international agreements.

- Universal Declaration of Human Rights
- International Labor Organization's (ILO) "Declaration of the basic principles and rights of Labor"
- Rio Declaration on the Environment and Development
- United Nations Convention against Corruption

The Global Compact urges corporations to uphold, select and legalize the 4 major provisions, which include human rights, labor, environment and anti-corruption.



Human Rights

Principle 1 : We support and respect the protection of internationally proclaimed human rights.

Principle 2 : We confirm that we are not complicit to human rights abuses.



Labor

Principle 3 : We uphold the freedom of association and the effective recognition of the right to collective bargaining.

Principle 4 : We uphold the elimination of all forms of forced and compulsory labor.

Principle 5 : We uphold the effective abolition of child labor.

Principle 6 : We uphold the elimination of discrimination in respect of employment and occupation.



Environment

Principle 7 : We support a precautionary approach to environmental challenges.

Principle 8 : We undertake initiatives to promote greater environmental responsibility.

Principle 9 : We encourage the development and diffusion of environmentally-friendly technologies.



Anti Corruption

Principle 10 : We work against corruption in all its forms, including extortion and bribery.

K-water is upholding and practicing the 10 principles of the UN Global Compact

K-water Acting CEO Kim, Wan Kyu

김완규

Definition of Terms Performances

Planting Soil Soil used to spray over dirt to make a foundation for grass to grow.

Membrane filtering processing This is the technology that is widely used for industrial ultra-pure manufacturing or water purifier for homes and this advanced water purification technique produces clean water by filtering into polymer membrane for water containing pollutant substances.

Non-point Pollution Source A pollution source having an irregular discharge route, unlike point pollutants sources, such as human populations or livestock having regular points of discharge. This pollution source is calculated by the pollution load arising from land use in watersheds (including paddies, fields and forest), and usually discharged to water system by rain.

Disinfection by-product Cancer-causing substance such as THM or HAA that is produced when disinfection products used in the purification process reacts to organic compounds in the water.

New and Renewable Energy Three kinds of new energy including hydrogen, fuel cells, and liquefied coal gas and eight kinds of renewable energy including solar heat, solar light, bio energy, wind power, hydro-electric power, terrestrial heat, marine energy and energy from waste.

Sludge Sediments produced from sewage treatment or water purification process.

Ozone A bluish, trioxigen gas, Ozone has strong oxidizing power and is used as one method of advanced tap water treatment to remove smells.

Reverse Osmosis (RO) Water processing method that can eliminate the smallest ionic compounds with sizes less than 1mm. This is frequently used in ultrapure water production or ocean water desalination.

Prevalence Rate Ratio that shows the frequency of subject cases within a certain region at a certain time against the total regional population.

Environmental Impact Assessment Estimations analyses and assessments of the impact of Social Overhead Capital (SOC) facilities, such as roads, ports, railroads, airports and industrial complexes, as well as reclamation projects, on the environment.

Seawater Desalination As a technique used to eliminate chemical substances, such as salts within salt water, Reverse Osmosis, a membrane filtering technique advantageous from a maintenance/management perspective, is mostly used

Carbon Reduction Label A Labeling System which converts CO₂ emissions that occur in the entire manufacturing process a product or service to label on the product

Integrated Water Resources Management Management that comprehensively manages water quantity, quality, ecosystems, and integrates surface water, underground water, and alternative water resources for integrated management.

CDM(Clean Development Mechanism) A Policy in which developed countries obligated to reduce greenhouse gases can invest capital in developing countries to have occurring greenhouse emission allowances as part of the reduction results of their own country (Unilateral CDM businesses conducted independently by developing countries allowed from 2005)

COD(Chemical Oxygen Demand) Amount of oxygen consumed by oxidizing pollutants contained in water by an oxidizing agent. Higher levels of COD indicate higher water pollution amounts.

GRI(Global Reporting Initiative) Organization founded with the support of the UNEP in 1997 to develop the guidelines for "Sustainable Management Reports."

CSR(Corporate Social Responsibility) Social responsibility of the Corporation.

EPE(Environmental Performance Evaluation) Customer expectations and requirements to the products and services provided by the company.

ISO14001 International environmental management system standards as prescribed by the ISO (International Organization for Standardization).

ISO 26000(International standard for the social responsibility) Issued by the International Organization for Standardization (ISO) in November 2010. An international master guideline of standardized social responsibility which covers the many conventional guidelines for the 7 core subjects and management integration such as the participation and development of every organization into the governance, human rights, labor practice, environment, fair operation practice, consumer issue and communication.

IPCC(Intergovernmental Panel on Climate Change) An international organization under the UN established by the World Climate Organization (WMO) and the UN Environmental Plan (UNEP) in order to evaluate global risks associated with climate changes and propose international solutions to the problem.

IWRM(Integrated Water Resources Management (Integrated Water Resources Management) An integrated method of water resources management that takes not just water quantity but water quality and environment into account in order to maximize social and economic welfare through water.

JOA+(Join, Open, Advance) K-water's own innovative technique for problem solving. Work-out method of GE was modified and advanced to be suited to the environment of K-water.

KRM(K-water Risk Management) K-water's company-wide risk management activities that predict potential management risks (finance, non-finance related) from the company's comprehensive perspective and uses effective risk management to achieve managerial goals and maximize corporate values.

K-sigma(K-water/Knowledge Sigma) 6 sigma emphasizing the cost reduction and process improvement and unique innovative method of K-water in combination of removing the unnecessary affairs and encouraging the R&D activities.

MTV(Multi-Techno Valley) 21st century type cutting edge complex such as the electronics/electricity, R/D which are established on the northern reclaimed land of Sihwa.

NTU(Nephelometric Turbidity Unit) Unit for measuring the turbidity. The turbidity of the water measured using the intensity of the light scattered by projecting on the specimen.

QPI(Quality Performance Index) K-water unique automatic evaluation method on the tap water quality control performance index, tap water quality and level of effort to control the water quality utilizing the IT and web technology.

SS(Suspended Solid, Floating material) The particles of diameter over 0.1 μ m which float in the water. It makes the turbidity of the water.

SQI(Service Quality Index) Objective measuring index for the core quality of service to prevent the combination of service process and to improve the quality.

TOE(Ton of Oil Equivalent) The amount of energy use such as use of electrical energy, gas and oils, converted to crude oil (tons)

UNFCCC(United Nations Framework Convention on Climate Change) A convention organized to regulate artificial emissions of greenhouse gases for prevention of global warming. Its full name is the United Nations Framework Convention on Climate Change.

VOC(Voice of Customers) An expected or requested matter of customers on products and services provided by the company.

w a t e r

2013 Sustainability Report



n a t u r e &



p e o p l e



Thanks to all those who helped to
publish report for their efforts.

Management Services Dept.

Business Planning & Coordination Dept.

Audit & Inspection Dept.

Administrative Services Dept.

Public Relations Dept.

Accounting & Finance Dept.

Construction Technology Management Dept.

Information Resources Services Dept.

Water Resources Business Dept.

Dam & Watershed Maintenance Dept.

Water Resources Operations Center

Water Resources Development Dept.

Water Supply Management Dept.

Water Supply Enhancement Dept.

Water Supply Operations & Maintenance Dept.

Land Development Dept.

Renewable Energy Dept.

Overseas Business Dept.

K-water Institute (KWI)

K-water Academy

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Kim Dong Kwan, Kim Jong Ho, Seok Kwan Soo

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Gong Yoon Hee, Byun Jeong Gook

Park Jae Young, Oh Nam Tak, Oh Se Jin

Bae Byung Joo, Lee Seong Hyun

Yang Eun Seok, Lee Jong Wook

Son Won Hae, Hong Seok Oh

Readers' Voice

We are grateful to all our stakeholders that have an interest in K-water's sustainable management and have read the '2013 Sustainability Report'. Each opinion and suggestion provided by you will be preciously utilized in further developing K-water's sustainable management. We value and accept your suggestions and we will try to reflect the suggestions in the next report.

Management Services Innovation Team of Management Services Department of K-water / Fax : 82-42-629-2399 E-mail : env98@kwater.or.kr

Paste here!

From

Name

Telephone

E-mail

Address

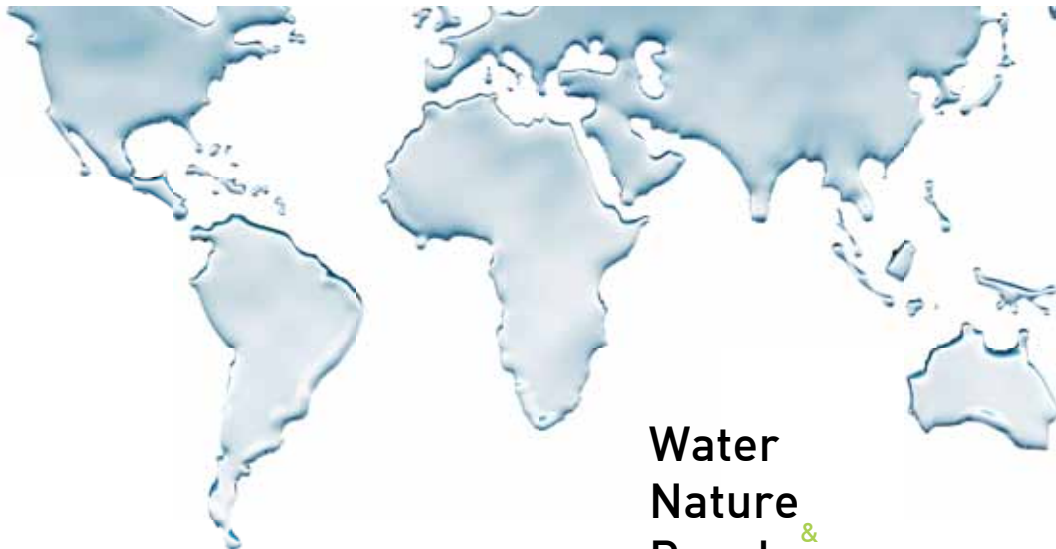
-

To

560 Sintanjin-ro, Daedeok-gu, Daejeon, Korea

Management Services Department of K-water

-



Water
Nature
&
People





About K-water's Sustainability Report 2013.

1. Which of the following would best describes you?

- | | | | |
|-------------------------------|------------------------|-----------------------------|-------------------|
| ① Customer | ② Investor/Shareholder | ③ Government/Civil Servants | ④ Local Residents |
| ⑤ Citizens, Social Group NGOs | ⑥ Business partner | ⑦ Scholar | |
| ⑧ Journalist | ⑨ K-water employee | ⑩ Others() | |

2. What brought your attention to K-water's Sustainability Report?

- | | | |
|-----------------------------------|--------------------------|-----------------------|
| ① K-water's homepage | ② Internet Search engine | ③ Newspaper/Magazines |
| ④ Recommendation by K-water staff | ⑤ Others() | |

3. Which section was the most interesting?

- | | | | |
|---------------------------------|-----------------------------|-----------------------------|--|
| ① Strategy | ② Approach | ③ Challenges(Green Economy) | |
| ④ Challenges(Green Environment) | ⑤ Challenges(Green Society) | ⑥ Performances | |

4. Which section do you think needs improvement?

- | | | | |
|---------------------------------|-----------------------------|-----------------------------|--|
| ① Strategy | ② Approach | ③ Challenges(Green Economy) | |
| ④ Challenges(Green Environment) | ⑤ Challenges(Green Society) | ⑥ Performances | |

5. Please feel free to give us your comments about the overall structure and contents of this report or our activities.

We are waiting for your valuable opinions

Your opinion will be of great help
and will be used to continue sustainable management activities.
We will review your opinions we will reflect them in our next repor.

This report can be downloaded in PDF file format from the K-water homepage (www.kwater.or.kr). Anyone who would like more detailed information on sustainable management activities and outcomes introduced in this report, please contact the following person in charge of this report. We deeply appreciate you for your profound interest on the sustainable management activities of K-water.

Information

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