# Rail
## Hope for Tomorrow

**Korea Rail Network Authority** Sustainability Report **2014**

KOREA RAIL NETWORK AUTHORITY

# About This Report

### Characteristics of the Report

Korea Rail Network Authority (KR) published the first sustainability report in 2008 and has published annual reports since 2010 to disclose and share the activities and accomplishments of KR's sustainability management. This is KR's sixth sustainability report and contains all activities and accomplishments in the general areas of the economy, the environment, and society.

### Standards Used in Writing the Report

This report was written in accordance with the GRI (Global Reporting Initiative) G3.1 Guidelines and ISO 26000, which is an international standard in the field of corporate social responsibility. The report was written to fulfill all the requirements for receiving the "A+" level in the application index of criteria in the GRI 3.1 Guidelines.

### Period and Scope Covered by the Report

This report covers quantitative results and accomplishments produced from January 2013 to December 2013. As for noteworthy accomplishments for time-series analysis, the data for three years from 2011 is included, and significant qualitative accomplishments from the first half of 2014 are also covered. The activities for sustainability management of KR's main headquarters and five local headquarters are addressed according to their priority, and the data gathered from 227 construction sites is surveyed in the environment category. The currency unit used in this report is Korean won.

### Verification of the Report

The credibility and accuracy of the data and contents of the report were ensured through a third party's verification. The third party authenticating agency confirmed that the legitimacy of the report meets the "A+" level in the application standards in the GRI G3.1 Guidelines.


| | |
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# Rail Hope for Tomorrow

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# CEO Message

**We are strongly committed to completing our given call such as enabling the nation to move into a high-speed rail era since KR's establishment in 2004.**

**Respected Stakeholders:**

I am so glad that KR is able to steadily communicate with stakeholders through our sixth sustainability report since we became a member of the UN Global Compact in 2007. Our mission and goal is to contribute to national economic development and provide better public transportation through the construction of railways. We are strongly committed to completing our given call such as enabling the nation to move into a high-speed rail era since KR's establishment in 2004.

**Railways are receiving much attention as an eco-friendly transportation means that copes with global climate change in the 21st century.**
This is not only a big challenge but a good opportunity to KR. In addition, we deeply recognize that KR's growth into a sustainable company in the future is contingent on our focus on what is needed for the people and what this era requires.

**We will build a win-win organizational culture through honest and open communication.**
We will ceaselessly innovate ourselves through personnel management based on capabilities and performances, self-controlled - and responsibility - based management and the development of creative human resources. The creation of a good corporate culture will enhance the ability of KR as a railway-specialized organization. Our pursuit of the best quality of railways will drive the development of the railway industry. KR will become a public organization trusted by the people through the implementation of the coexistence and social responsibility.

**We value our partners for mutual growth, build equal relationships with them and trust each other.**
At the same time, we put into practice practical ethical management activities throughout the railway construction industry. These activities substantiate our active pursuit of "Clean KR." Moreover, we embrace our corporation social responsibility activities as part of our major business strategies for sustainability management and are implementing programs for communities.

We understand that trust and love from our stakeholders such as government, customers, business partners, local communities, and employees helped accomplish our achievements over the past 10 years. Your strong support and encouragement are the driving force behind KR's sustainable growth. I hope that this report, reflecting the dreams and hopes of KR's employees, will serve as a strong channel for communication and cooperation to create a bright future with stakeholders.

Thank you!

**Kang Yeong Il**, CEO of Korea Rail Network Authority

강 영 일

August 2014

# 2013 Sustainability Highlights

### 2020 New Vision and Strategic Goals

KR set the new vision, "Realization of a Faster, Safer and More Convenient Rail Network." New Vision means bringing happiness to the people through railways by fulfilling duties and growing further. It also reflects the contemporary requirements of debt reduction.

### KTX Station Opening Ceremony at Incheon International Airport

KR held the opening ceremony for the KTX Station at Incheon International Airport after completing the line between the Incheon International Airport Railway and the Gyeongui Line and making improvements to the Incheon International Airport Railway System and the station. The start of the KTX service enhances passengers' convenience as the service allows passengers to move directly to the airport without transfers at Seoul or Yongsan Station.

### Empathy Concert for Better Communication

The Empathy Concert was held to share knowledge and know-how, promote discussions and implement an organizational culture where employees can better communicate with one another. The two-way talkshow-type concert contributes to building an open organizational culture through communication and harmony.

### Employee Integrity Contract for Ethical Management

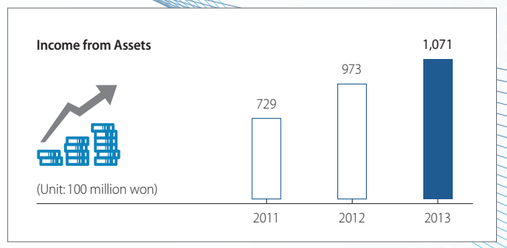
KR employees signed an employee integrity contract for ethical management and the establishment of an integrity culture. The contract bans profiteering and champions fairness in work. No employees should find KR retirees and other people jobs at KR and partners. These facts exemplify KR's efforts to become an organization trusted by the people through fair and transparent work.

**International Railway Orders to KR**

Totaling **84.2** billion won for **32** projects in **12** countries (2004-2013)

### Entry into Global Market through Diversified Efforts

KR is making diversified efforts to make inroads into overseas railway markets by promoting international exchanges and building a global network based on its railway technology. These efforts enabled KR to conduct business in 12 countries in 2013, rising from nine countries in 2012, and won book orders valued at KRW 10.9 billion.




### Income from Assets Tops 100 Billion for First Time

KR posted KRW 107.1 billion for the first time in its history by turning a use permit-oriented profit structure into a development-oriented one (a year-on-year increase of 10.1%). In the future, we will try to ensure financial stability by maximizing profits through asset diversification and the activation of asset development.

### Grand Prize at 13th Environmental Protection Awards

KR was awarded the Grand Prize (the Prize of the Minister of Environment) at the 13th Environmental Protection Awards held by the ministry in November 2013. Its ecological restoration project turned a closed railway bridge over Jojong Stream on the Seoul-Chuncheon Line into an ecological observation trail. The company built an ecological retaining wall with waste gravels to protect wild animals. High points were given since the use of waste gravels cut down on costs, reduce waste and improved local landscapes. We will not stop exploring every avenue to develop and implement eco-friendly projects in the future.

### Presidential Prize at 39th National Quality Management Convention

Three KR teams picked up the Presidential Prizes at the 39th National Quality Management Convention through their presentations on reducing cost for railway tunnel shotcrete through the optimization of steel fiber input, securing space for users through the recalculation of facilities at stations (Six Sigma Division) and establishing mutual growth systems for reducing unfair practices at railway construction sites (Partnership Division).

### KR 123 Campaign to Enhance Job Efficiency through Intensive Work Hours

KR designated a time slot (09:30 to 11:30) for intensive work to eliminate inefficient work practices caused by irregular meetings and interrupting calls. We are creating a (work smart) organizational culture to enhance work efficiency for better performances.

# KR at a Glance

## Railway Construction

We strive to achieve a faster, safer and more convenient for railway network

Total length of railways in 2013 **3,666** km

## Safety Management

KR strives to achieve ZERO accidents through railway safety checks that prioritize accident prevention. The company contributes to promoting public welfare by protecting railways and ensuring safety.

On-site inspection conducted in 2013 **3,958** total points

## Overseas Business

KR is increasing its sales competitiveness through international standards, professional training and international networks. The company is going global, based on its core competencies.

Overseas Railway Orders (2004-2013) **84.2** billion won

32 projects in 12 countries

## Asset Management

KR strives to manage state-owned assets properly and efficiently. Its asset income diversification and development projects generate profits and enhance asset value.

Income from Assets **107** billion won

(Agency established the first asset revenue that exceeded 100 billion)

## Social Contribution

Using railways' capacity, KR is building a happy community through customized social contribution activities.

Service time **15,297** hours

# KR Sustainability


12 KR Overview

14 KR Philosophy and Vision

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24 Sustainability Key Issues


| Sector | Performance Indicators | Unit | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|
| Economy | New Railway Distance | Km | 13 | 32.9 | 16 |
| | Electric Railway Ratio | % | 65.22 | 69.1 | 68.9 |
| | Budget Savings | 100 million won | 5,299 | 6,532 | 12,246 |
| | Overseas Assets And Income | 100 million won | 855 | 994 | 1,039 |
| Environment | Environmental Management Index | Point | 113.1 | 158.1 | 212.0 |
| | Greenhouse Gas Reduction Rate | % | 5.8 | 16.6 | 24.4 |
| | Number Of Environmental Law Violations | Case | 0 | 0 | 4 |
| | Construction Waste Recycling Rate | % | 95.6 | 97.2 | 99.10 |
| Socitey | National Customer Satisfaction | Point | 95.4 | 93.98 | 94.10 |
| | National Integrity | Point | 8.81 | 8.22 | 8.36 |
| | Employee Satisfaction | Point | 73.7 | 76.4 | 78.50 |
| | Construction Accidents | % | 0.142 | 0.082 | 0.102 |
| | Talented People Recruitment Rate | % | 31.51 | 33.38 | 36.67 |

# KR Overview

**KR builds fast, safe, convenient railway networks.**

KR was established to effectively build rail networks and to systematically manage and operate rail network facilities on behalf of the country, providing public transportation and contributing to the stable growth of the national economy.

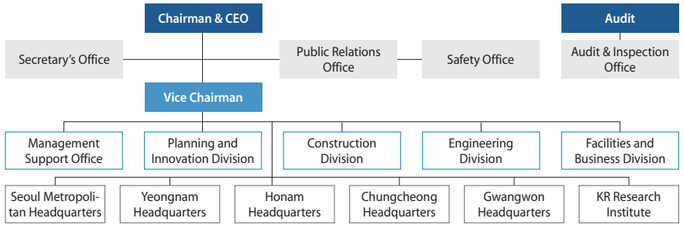
## Introduction of the Corporation

KR not only efficiently fulfills its required role of constructing and managing rail networks and facilities, but also strives to provide the public with the, safe, and convenient rail network service so that travelers can reach any place in the country within 90 minutes through the "construction of convenience-oriented railroad network", "improvement of the railway facilities for the sake of public safety", "maximization of revenues from KR's own assets and overseas business", and "establishment of a sustainable management system." Drawing upon its accumulated experience and technology as the fifth country in the world to build high-speed railways, KR will maximize its efforts to launch into the overseas market, thereby boosting Korea's national prestige and revitalizing the national economy.

## Organizational Structure

KR consists of its headquarters (four divisions and one office), one research institute and five regional offices. The headquarters and secondary institution are located in Daejeon. Regional offices are located in Seoul, Busan, Suncheon, Daejeon, and Wonju for the efficient supervision of rail network construction projects and management of rail facilities dispersed around the country. The overseas branch in China aids in the successful performance of contracts obtained in China. KR operates under three principles, namely building a small yet strong organization, an innovative organization for the creation of future value, and a competitive organization specializing in technology. A flexible quota system is in place to respond to the changes of workload in different areas and fields, which is characteristic of the construction industry, and to enhance the management of KR's structure.

**Organization Structure**

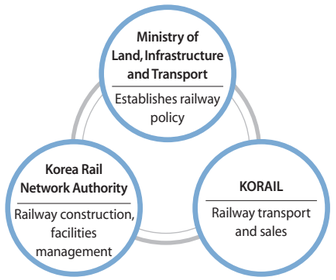



**General Status** (As of June 30, 2014)

| | |
|---|---|
| Name of Organization | Korea Rail Network Authority |
| Date of Establishment | January 1, 2004 |
| Legal Basis of Establishment | • Framework Act on the Development of Railway Industry (No. 9772)<br>• Korea Rail Network Authority Act (No.9391) |
| Chairman & CEO | Kang Yeong Il |
| Formation | Quasi-Governmental Agency |
| Current Status of Budget | 9,824,535 Million Won |
| Government's Investment (in 2023) | 4,683.4 Billion Won |
| Number of Employees | 1,363 Employees |
| Location | 242 Jungang-ro, Dong-gu, Daejeon Metropolitan City |

* No changes were made in the scale, structure, or ownership structure during the reporting period.

**Railway Industry Structure**

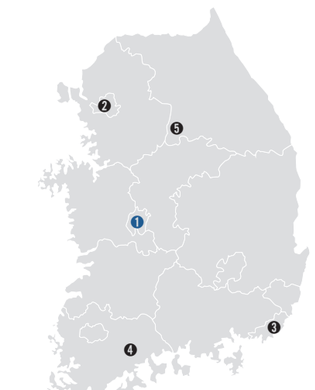



## Introduction of Major Business

KR opened the era of 300km/h high-speed railways in 2004, emerging as a global enterprise by launching into the overseas rail network construction market. Furthermore, public services projects are being more strongly promoted for improving public transportation and building cultural spaces, such as the development of complex transfer centers and station-influenced areas, creation of traditional markets and public parks, and construction of bike paths at abandoned rail yards.

| | | |
|---|---|---|
| Construction of Railways | Business Contents | Construction of next generation transportation networks such as high-speed railways, conventional railways metro rails, and tilting and magnetic levitation railways |
| | Business Objectives | Building rail networks to make any place in the country accessible within 90 minutes of travel |
| Safety Management of Rail Network Facilities | Business Contents | Safety review and maintenance of railway facilities, improvement and modernization of railway facilities including multi-level crossing, continuous welded rail tracks and soundproof walls |
| | Business Objectives | Modernization of railway facilities for the convenience and safety of users |
| Railway Asset Management | Business Contents | Development of station-influenced area and complex stations, creation of eco parks and bike paths on abandoned railyards, management and rental process of government-owned property, construction of Happy Housing on idle land |
| | Business Objectives | Efficient management of government-owned property and balance between public interest and profitability |
| Overseas Railway Network Projects | Business Contents | Identifying opportunities for overseas projects, winning contracts of foreign railway projects including construction planning project management, construction planning supervision, participating in Official Development Assistance (ODA) projects, establishment of public and private collaborative networks, cultivation of international human resources. |
| | Business Objectives | Improvement in competitiveness in global railway market, creation of profits. |
| Development of Rail Network Technology | Business Contents | Development of future rail networks and practical technology, Localization of domestic railway products |
| | Business Objectives | Development of future rail network technology and advanced railway technology |

**Major Business Locations**



❶ **National Headquarters/Chungcheong Headquarters**
242, Jungang-ro, Dong-gu, Daejeon Metropolitan City

❷ **Seoul Metropolitan Headquarters**
378, Cheongpa-ro, Yongsan-gu, Seoul Metropolitan City

❸ **Yeongnam Headquarters**
46, 9th St. Chungjangdae-ro, Jung-gu, Busan Metropolitan City

❹ **Honam Headquarters**
16, Yeokjeon-gil, Soncheon-city, Jeollanam-do

❺ **Gangwon Headquarters**
2650, Bukwon-ro, Wonju-city, Gangwon-do

**Beginning of 300km/h high-speed railway era** | **Reached 350km/h** | **Preparing to reach 400km/h**

**2004**
- Establishment of Korea Rail Network Authority
- Opening of Gyeongbu High-speed Railway (Phase 1)

**2005**
- Winning the first contract for supervision of Chian's railway projects
- Opening of Cheongrangri-Deokso Double-track electrified Railways in Jungang Line

**2006**
- Electrification of the Entire Gyeongbu Line
- Opening of Rail Traffic Control Center
- Opening of Uijeongbu-Dongducheon Doubletrack electrified Railways in Gyeongwon Line

**2007**
- Selected as a top supervising organization of Chinese Railways
- Running test Connecting Lines between South and North Koreas
- Penetration of Han River underwater tunnel through Wangsimri-Seonleung

**2008**
- Opening of Cheonan-the Onyang Springs-Sinchang Double-track electrified Railways and Janghang Line
- Opening of Paldang-Guksu Double-Track electrified Railways in Jungang Line
- Generating 10 billion won in profits from overseas business

**2009**
- Opening of Seongsan-Munsan Double-track electrified Railways on Gyeongui Line
- Opening of Guksu-Yongmum Double-track electrified Railways on Jungang Line

**2010**
- Creation of 36.5 Billion Won of profits from overseas business (Technology consulting for Lanxin/Yunnan, Guizhou and other projects)
- Opening of Phase 2 of Gyeongbu High-speed Railway
- Opening of Sinsangbong-Chuncheon Double-track electrified Railways in Gyeongchun Line
- Opening of Samrangjin-Masan Double-track electrified Railways in Gyeongjeon Line

**2011**
- Opening of Iksan-Yeosu Double-Track electrified Railways in Jeolla Line
- Opening of Jecheon-Dodam Double-track electrified Railways in Jungang Line

**2012**
- Opening of Yongsan-Chuncheon High-speed Railways in Gyeongchun Line
- Opening of Iksan-Yeosu High-speed Railways in Jeolla Line
- Opening of Yongmum-Seowonju Double-track electrified Railways on Jungang Line

**2013**
- Opening of a railwayfor the area submerged due to the construction of Yeongju Dam
- Opening of Jecheon-Ssangyong Double-track electrified Railways
- Opening of Ori-Suwon Double-track electrified Railways

**2014**
- Won prize for excellent consulting work for Chinese railways (Stopover line project)
- Supervision of Beijing-Shenyang Highway in China

# KR Philosophy and Vision

**KR realizes happiness of the people over the new vision, KR 2020.**

KR fully understands the value of rail networks as an eco-friendly, energy-efficient, safe, and efficient means of transportation, and thus established the 2020 Global Management Strategies based on public demand for faster, safer, and more convenient rail networks. This reflected the changes in the global railway market gravitating toward high-speed railways, and the governmental policies directed toward low-cost and highly efficient economic construction of rail networks.

## VISION 2020

### KR 2020 Sustainability Management Strategy

KR redefined its mission, reflecting people's needs. The company set its goal of "Faster! Safer! and More Convenient! Realize Rail Network" by adding its enterprising and clear goals to its future image in 2020. The company seeks to steadily grow by suggesting differentiated strategies such as securing the original publicity of the railway industry including building railway networks and improving safety, removing bubbles from construction processes and enhancing operational efficiency through an increase in revenue.

**Slogan**

KR! go BEST!

**KR's Vision System**

| | | | | |
|---|---|---|---|---|
| KR's Mission | Create Happiness for the Public by Connection the World with Rail | | | |
| 2020 Vision | Faster! Safer! and More Convenient! Realize Rail Network | | | |
| Strategic Objectives (2020) | Total Length: 4,980km<br>Accident Rate: 0.05% | Facilities improvement Rate: 80% | Business Revenue 1.4 trillion won | Interest Coverage Ratio 1.05 |
| Strategy | Construction of convenience-oriented railroad network | Improvement of the railway facilities for the sake of public safety | Maximization of revenues from KR's own assets and overseas business | Establishment of a sustainable management system |
| Strategic Tasks | • Timely construction of new railway<br>• Raising speed of existing railways<br>• Existing railway electrification<br>• Systemization of construction safety, quality, environmental management<br>• Efficient construction investment | • Expansion of railway safety facilities<br>• Improvement living environment<br>• Facility modernization<br>• Recovery of construction cost and optimization maintenance management | • Asset development diversification<br>• Utilization and commercialization of state-owned property<br>• Strategic expansion of overseas business<br>• Enhancement of organizational and workforce productivity | • Financial structure normalization<br>• Wide diffusion of Clean KR<br>• Building infrastructure for future projects<br>• Strengthening railways' core competencies<br>• Fulfilling communication, coexistence, social responsibilities |



### KR's Core Values

**3 Core Values**

| Core Values 1 | Core Values 2 | Core Values 3 |
|---|---|---|
| ▶ Sustainable Management<br>Pursuing sustainable growth and development, fulfilling social responsibility | ▶ Mutual Trust<br>Respecting and caring for each other and seeking common prosperity based on mutual trust | ▶ Professional Mind<br>Constantly striving to be the best in the railway sector |

KR's 3 Core Values are: Sustainable Management, Professional Mind, and Mutual Trust. Harnessing these three core values, KR is pushing forward with core value-oriented management strategies to realize its vision and reach its strategic goals. In particular, KR seeks to steadily generate results by internalizing core values and naturally applying them to its organizational culture and systems. In addition, KR incorporated our core values into tasks for the management, managers and staff and reflected them in personnel management and education. Therefore, KR secured the power to implement them. KR's organization culture workshop for all employees developed 12 core value implementation programs. Accordingly, KR is conducting core-value internalizing activities such as talking with the CEO, an empathy concert, and discussing important issues with the CEO over meals.

**Internalizing core values**

| | |
|---|---|
| Recruitment | Evaluating acceptance of core values |
| Education | Nurturing change manager |
| Promotion | Completion of core values education |
| Practical tasks | Implementing tasks by positions |
| Organizational Culture | Internalization program |

### Promotion System of Sustainability Management

KR's sustainability is managed by the Management Strategy Office, Management Performance Agency, and Planning and Innovation Department, and various activities are being promoted to carry out the economic, social, and environmental responsibilities by each business department. In addition, committees of different fields such as the Social Services Committee and the Green Railway Consulting Committee are assisting sustainability efforts.

**Committee**

| | |
|---|---|
| Social Responsibility Committee | Total Project Cost Committee |
| Budget and Incentive Review Committee | Financial Risk Management Committee |
| Strategy and Management Evaluation Committee | Railway Policy Committee |
| Green Railway Advisory Committee | Railway Construction Plan Review Committee |
| Design Advisory Committee | Contract Review Committee |

**Sustainability Management Framework**

Chairman — Vice Chairman

Secretariat: Planning and Finance Division (Department of Business Performance)

| Railway construction | Facility Safety | Asset Management | Overseas Railways | Technological development | Ethics and Win-Win Growth | Customer and Social Responsibility | Environment |
|---|---|---|---|---|---|---|---|
| • Construction Div.<br>• Engineering Div.<br>• Regional Offices | • Facility and Business Div.<br>• Safety Office<br>• Regional Offices | • Facility and Business Div.<br>• Regional Offices | • Facility and Business Div. | • KR Research Institute | • Planning and Finance Division | • Management Support Office | • Safety Office |

### Blueprint of KR 2020 Global Management Strategies

KR is making efforts to carry out its most basic mission of the "Realization of Fast, Safe, and Convenient Rail Network" given from the public. When the 2020 Global Management Strategies are accomplished, major cities across the country will be incorporated into one metropolitan region within the 90-minute travel time zone. The metropolitan economic blocs will be connected by green rail networks, and the transportation and distribution systems based on rail network will be in place. As the foundation for carbon and green growth is prepared, 7.74 million tons of greenhouse gases generated by traffic will be reduced and 2.59 million TOE tons of energy will be saved on an annual basis.

# Corporate Governance

**KR implements responsibility-based management through its transparent and rational corporate governance structure.**

KR enhances corporate value based on transparent governance structure by practicing responsibility management.

## Makeup of the Board of Directors

### Makeup of the Board of Directors

The majority of the board of directors is represented by the non-executive directors to ensure mutual checking and independence under the Law on Management of Public Bodies for the responsibility and transparency of management. The board of directors consisted of five executive directors and seven non-executive directors as of August, 2014. KR efficiently put sustainability management into practice such as promoting the activities of sub-committees to strengthen its review function.

### Utilizing the Expertise of the Non-executive Directors

KR established a subcommittee for each field of expertise for an in-depth deliberation on items in the agenda in November 2012 and founded a management participation system in each non-executive director's field of expertise by utilizing a board of non-executive directors, subcommittee, and a management commission. The management commission is headed by a non-executive director. The non-executive directors belong to the management commission, playing an active role in policymaking processes such as the deliberation of the items on agenda, making management proposals and research proposals. KR established subcommittees on planning and management, construction, facilities, and other fields to actively utilize the expertise of the non-executive directors.

### Appointment Process

KR appoints its executives under the Law on Management of Public Bodies and built the Executives Recommendation Committee (ERC) for the transparent appointment of executives. ERC consists of five members - three non-executive directors, one private member, and one governmental member - selected through deliberation by the board of directors.

ERC determines the evaluation criteria of executive candidates and conducts document screening and in-depth interviews of the applicants through an open application process. ERC recommends the final applicants to the person in charge of appointing executives, and the person in charge of appointing executives selects the best applicants for the executive posts. The chairperson of the board is appointed by the President after a recommendation is made by ERC and the Minister of Land, Infrastructure, and Transport. The auditor is appointed by the President after a recommendation is made by ERC and the Minister of Strategy and Finance and voted by the Management of Public Bodies Committee.

**Management Committee**

| Committee | Highlights |
|---|---|
| Executive Recommendation Committee (ERC) | • ERC transparent configuration and operating |
| Financial Risk Management Committee | • Financial risk assessment for financing health |
| Audit Advisory Committee | • Self-audit activities • Stronger fairness and professionalism<br>• Mid- to long-term audit strategy, review adequacy of audit results |
| Strategic Management Evaluation Committee | • Evaluation internal performance of all departments<br>• KR2020 Strategy and transfer goals, strategic tasks, and KPI consulting |
| Budget and Incentive Review Committee | • Budget saving, amount of income increase and incentive and budget review |

**Members of the Board of Directors**

| Executive Directors | Title |
|---|---|
| Kang Yeong-il | Chairman (Chairperson of the Committee) |
| Kim Young-woo | Vice Chairman |
| Kim Gye-woong | Head of Construction Div. |
| Kim Sang-tae | Head of Engineering Div. |
| Baek In-sir | Head of Facility and Business Div. |
| **Non-Executive Directors** | **Career Highlights** |
| Park Gwang-seo | Director of National Rental Housing Construction Planning at Ministry of Land, Transport and Maritime Affairs |
| Heo man-hyeong | Professor of public administration at Chung-Ang University |
| Lee Taeg-gwan | Auditor at Korea Environment Authority |
| Ju Yeong-jin | Senior research fellow at Budget and Settlement of National Assembly |
| Oh Yeong-chan | Secretary general of the Korea Institute of Peace |
| Lee Seong-min | Chairman of Jungnang-gu Council |
| Kim Deok Man | Professor of academia - industrial cooperation at Korea Transport University |

* All Members are male members

**Persons with Powers to Appoint Executives at KR**

| Officer | Person with Appointive Powers |
|---|---|
| Chairman | President |
| Auditor | President |
| Executive Director | Chairman |
| Non-Executive Director | Minister of Land, Infrastructure and Transport |

## Roles and Operation of the Board of Directors

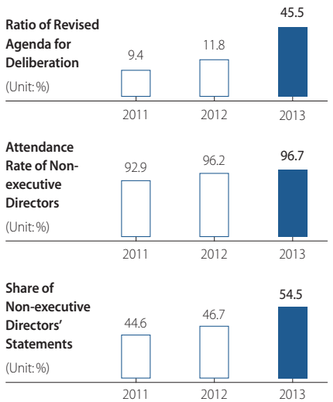
### Vitalizing the Board of Directors

KR holds a monthly board of directors meeting on a regular basis, and a temporary board of directors meeting is held when an item demands immediate deliberation. The notice for meetings is made seven days prior to themeeting under the revised provision, and the efficient operation of the board of directors is guaranteed throughregular meetings of the board of non-executive directors and sub-committee meetings. "Seven days in advance ofthe board meeting," a board meeting of non-executive directors consisting of the chief non-executive director(chairperson), executive director (executive director of Planning Department), and non-executive directors is heldfor the preliminary deliberation on the items in the agenda.

**Operation of BOD**

| Classification | 2011 | 2012 | 2013 |
|---|---|---|---|
| Number of BOD meetings | 11 | 15 | 13 |
| Voting agenda | 32 | 34 | 33 |
| Ratio of Preliminary Deliberation | 100% | 100% | 100% |
| Attendance Rate | 95.7% | 97.9% | 97.3% |
| Attendance Rate of Non-executive Directors | 92.9% | 96.2% | 96.7% |
| Share of Non-executive Directors' Statements | 44.6% | 46.7% | 54.5% |

**Major Achievements of BOD**




**Operation of Subcommittee**

| Subcommittee | Composition | Operating results and performance |
|---|---|---|
| Planning and Management Subcommittee | Three non-executive directors, Lead Executive Director. | • 2013 long-term financial management plan (draft)<br>• 2013 business plan and budget (draft), bond issuance plan (draft) |
| Construction Subcommittee | Two non-executive directors, Lead Executive Director | • Progress in railway construction projects<br>• Honam high-speed train production and quality management<br>• Construction Division's performance and plan and private project management |
| Facility Subcommittee | Two non-executive directors, Lead Executive Director | • General Rail maintenance subcontract (draft)<br>• Direction of general and high-speed rail track fee contracts in 2014 |

**5 Information Items Given to BOD**

| | |
|---|---|
| Personnel Management | Status by job rank, service time, age and others |
| Finance | Financial indicators such as assets, liabilities |
| Budget | Allotted and spent budget, etc. |
| Construction | Processes, total project cost, design and interface, etc. |
| Assets | Fee to use state-owned properties and land trades, etc. |

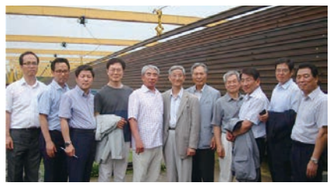
### Strengthening Non-Executive Directors' Participation in Management

As a public institution, KR is enhancing the professionalism of the Board of Directors to achieve responsibility-based management. KR utilizes the expertise of non-executive directors actively when making decisions on major issues. KR strengthened non-executive directors' checks of the management by managing and reflecting management suggestions and advice of the non-executive directors who are various management experts.

### Evaluation and Rewards

Differential pay is awarded to the executive directors depending on the job performance. The evaluation of the director is broken down into job performance (60%) and the CEO's assessment (40%). The annual salaries of the auditors and executive directors including the CEO in the year 2013 are disclosed through the public business announcements.

**Non-executive Directors' Visit to Sites**



Checking quality management for Continuous Welded Rail

# Risk Management

**KR actively copes with various risk factors through a companywide risk management system.**

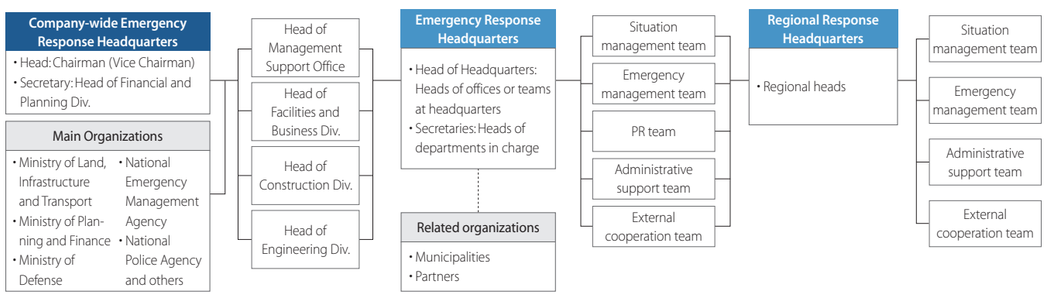
KR actively tackles risk factors through its company-wide risk management system. Its efficient crisis management system and procedures prevent risk and its regular maintenance activities empower KR to actively cope with crises.

## Response System for Crisis Management

KR identifies risks by type of risk and periodically checks the status of the management of the identified risks by running a special risk management inspection group in addition to a general organization that normally carries out risk management. If a crisis is expected to occur, KR will assess the risk level by analyze relevant information in risk assessment meeting and sound the alarm and thus actively respond to the crisis. In addition, KR continually monitors the implementation of improvement measures by running a diagnosis and assessment team when necessary after the end of a crisis.

**Crisis Management Response System**

**Emergency Response Organization**




## Operation of System for Companywide Crisis Management

KR systemizes and manages from the establishment of management plans about issues management, risk management, crisis management, vulnerable site management and conflict prevention management to risk analysis and response plan formulation. This process enables all employees of KR to learn how to deal with a crisis by checking and sharing the entire process from the beginning to the end of a crisis.

IT system for crisis management

## Responses by Risk Grades and 3-STEP-5R

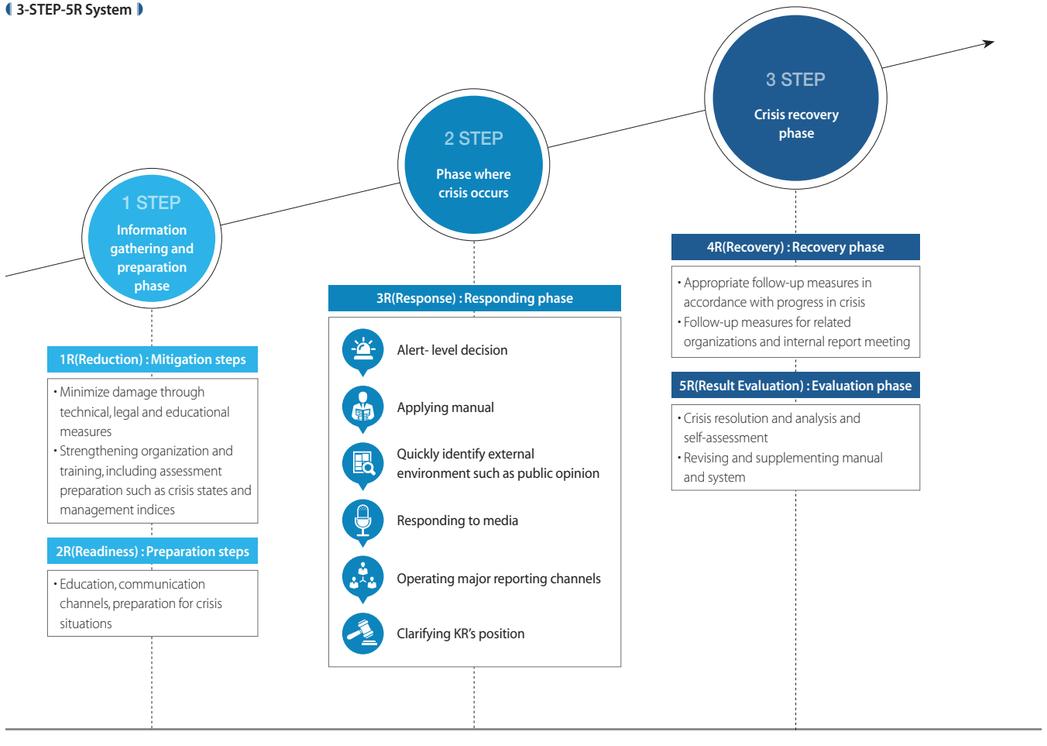
Main departments by risk types analyze risks and rate serious risks 'A' and general risks 'B' or 'C'. This classification leads to differentiated response strategies.

In addition, KR runs the 3-STEP-5R System based on three steps (the pre-crisis stage, the crisis stage and the recovery stage) and 5R which stands for Reduction, Readiness, Response, Recovery and Result Evaluation. The system is put in place to actively cope with potential risk's transformation into present risk or the sudden

**Grading and response strategies**

| Classification | Grade | Degree | Strategy | Head of the department in charge |
|---|---|---|---|---|
| Core | A | Serious | Immediate and intense response | Head of Emergency Response Headquarters |
| General | B | High | Emergency response plan | Heads of divisions, offices or teams |
| | C | Medium | Focus on enhanced operational control | Director |
| | D | Low | Focus on acceptance and observation | Team Leader |

**3-STEP-5R System**



# Stakeholder Engagement and Communication

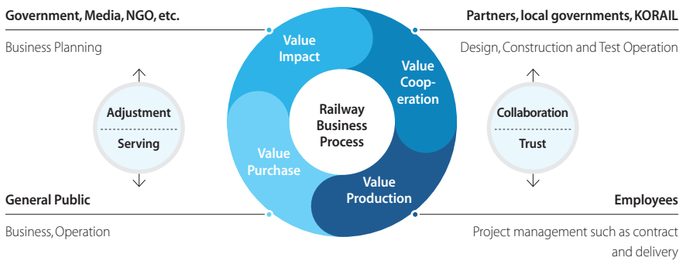
## KR listens to the voices of various stakeholders.

**KR is implementing sustainability management by way of various efforts to share visions and strategies with stakeholders.**

### Definition of Stakeholders

KR categorized the stakeholders into groups of value influencing customers (the government, media, NGO), value cooperation customers (business partners, local government agencies, KORAIL), value producing customer (employees), and value purchasing customers (citizens).

**Categorization of Stakeholders in terms of value cycle of different rail network project processes**




### Selecting Core Issues that Stakeholders Want

KR analyzes various issues about stakeholders and grasps the importance of each issue. KR is making endeavors to understand the needs of stakeholders by selecting issues which interest KR a great deal as core issues among important concerns.

**Measurement of Importance and Responses by Types of Stakeholders and Deriving Key Issues from Gap Analyses**

| Stakeholders | Key Targets | Core Issues | Gap (response-importance) |
|---|---|---|---|
| Value Impact | Government / Media | • Timely railway construction through efficient budget<br>• Secure. Liability management and financial soundness<br>• Increasing transparency and integrity<br>• Ensuring construction quality and safety | 83.4 / 7.6 / 91<br>83.9 / 5.6 / 89.5<br>80.8 / 10.5 / 91.3<br>84.5 / 6.0 / 90.5 |
| Value-based cooperation | Partners / Municipality / KORAIL | • Shared growth, strengthening roles of KR for fair trade<br>• Expanding investment in railway construction and facility improvement<br>• Winning stakeholders' trust and support | 85.7 / 5.5 / 91.2<br>83.4 / 7.6 / 91<br>83.4 / 7.6 / 90.2 |
| Value of production | Employees | • Job satisfaction and motivation and capability development<br>• Win-win labor-management relations<br>• Enhancing corporate image and brand | 81.4 / 7.9 / 89.3<br>83.4 / 7.6 / 91<br>81.9 / 5.8 / 87.7 |
| Value Purchase | General public | • Expansion of safe and convenient railway network<br>• Addressing customer complaints (land compensation, noise reduction, etc.)<br>• More social contribution andsocial responsibilities | 83.4 / 7.6 / 91<br>84.6 / 2.9 / 87.5<br>85.2 / 1.8 / 87.0 |

**Analysis of Stakeholder Issues**

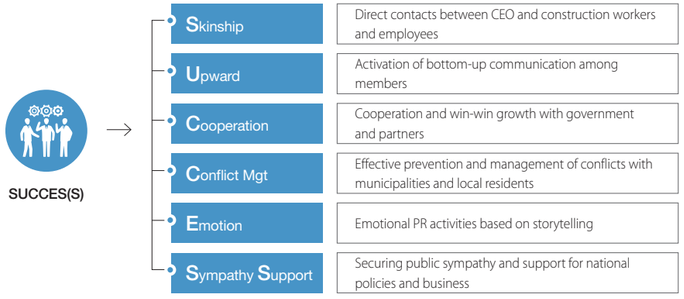
- Item: 47 questions in 3 elements
- Period: May 20 to June 4
- Subjects: 267 people, including employees, suppliers, municipalities, government, KORAIL and customers
- Method: Evaluating priorities of and responses to questions and GAP analysis



### Establishing Sharing and Communication Strategies (Success Strategies)

KR concentrated on bringing tangible results through the establishment of Success Strategy for contacts for effective communication, bottom-to-top communication, collaboration and shared growth, conflict management, emotion-based publicity, sympathy and support.

**SUCCES(S) Strategy**

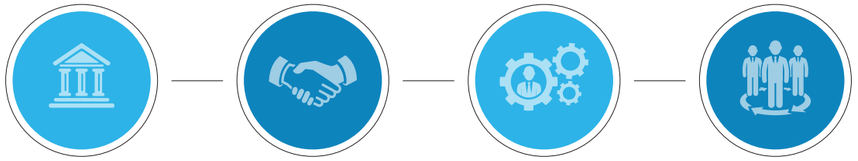



### Enhancing Communication though Specialized Strategies and Channels

| Stakeholders | Values influence (government / media) | Value collaboration (partners / local / Korail) | Value production (employees) | Worth buying (General public) |
|---|---|---|---|---|
| Sharing, communication Strategy | Spreading public sympathy onassistance and support for national policies and KR's business | Realizing win-win growth by eliminating partners' troubles and strengthen cooperation with them<br>Prevent and resolve conflicts early by renewing conflict management system | Realization of mutual growth culture through bottom-up communication | Spreading trust and brand value by fulfilling social responsibility and business publicity |
| Key word | Cooperation, Sympathy(Support) | Cooperation, Skinship<br>Conflict Management | Skinship, Upward | Emotion, Sympathy(Support) |
| Communication channel | • Policy debate, public hearings<br>• Media contributions, interviews, Press conference | • Shared Growth Council.<br>• SME Support Center<br>• Shared growth messenger<br>• Management's communication with workers | • Education (on-/off-line)<br>• Labor-management negotiation and council<br>• Youngemployees' meeting<br>• Talking with CEO over lunch<br>• Empathy concert | • SNS, channels for media<br>• Social contribution system<br>• Customer suggestions / complaints management system |

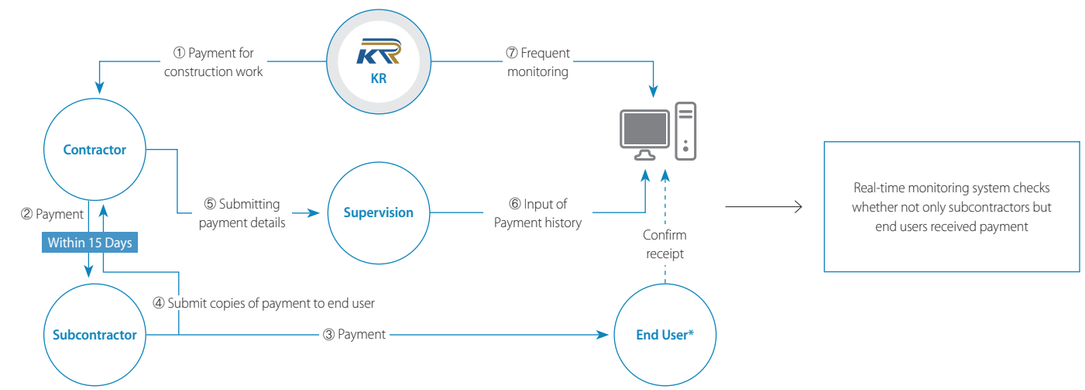
# Stakeholder Engagement and Communication

## Efforts to Share Visions and Strategies and Achievements



| Stakeholders | Value influence (government / media) | Value Collaboration (partners / local governments / KORAIL) | Value of production (employees) | Value Purchase (general public) |
|---|---|---|---|---|
| Efforts | • Securing new business through support measures such as national policy debates<br>- Support such as National Assembly Railway Forum (five times)<br>- Enlarged investments need Government / Parliament support Lobbying activities (71 times)<br>⇒ (Treasury) 2012: 4.161 trillion to 2013: 4.6834 trillion (13% increase)<br>• .Efforts to revise laws for better railway business<br>- Support and opinions for policy seminar (11 opinions expressed, nine reflected)<br>⇒ Revision of pre-feasibility study guidelines and transportation facility investment and evaluation | • System improvement activities to spread fair trade culture<br>- Introduction of reward system for illegal subcontracting reports Execution (July. 9)<br>- Improved payment system for the prevention of delayed payment (Nov. 22)<br>• Checking status of unfair subcontracting to prevent unfair subcontracting (F times)<br>- Resolving 12 billion won in overdue payments to subcontractors<br>• Listening to VOC of small partners and addressing management problems<br>- Debates on win-win growth with partners (June. 26/Dec.17)<br>• Resolving conflicts through communication for win-win growth<br>- Addressing complaints about extend underground pass in Iksan (by 33,560 people)<br>- Non-conflict move of Sinchon Village (17 households) | • Composition of nuclei for creative innovation culture Core staff training<br>- Innovative personnel 37 people (MBB2, BB14, GB21 patients) sustained an additional positive Innovation deployable<br>• Self-learning knowledge Dure (CoP) of the base, proposed activities Improve business efficiency<br>- Knowledge (11,502 cases), proposed (5,049 cases), Financial performance (76.2 billion won)<br>• KR's Young Staffs Regular Meeting (once a month)<br>- KR's staffs under deputy general manager discussed shared vision, strategy, and management suggestions by upward communication.<br>• Constant communication through Online/Offline channels<br>- [Online] CEO's Letter about Innovation, Mutual Growth News (once a month), Vision / strategy sharing through knowledge management system<br>- [Offline] Open Forum (once a month), core value education (semiannually), Talking with CEO over meals (113 times), CEO's on-site communication, empathy concert | • Expanding empathy and enhancing brand value by enhancing emotional PR such as publicizing KR's business and management performances<br>- Media exposure cases totaling 469 (139% increase compared to 337 cases of last year)<br>• Earning more trust from people through participatory events<br>- Ground-breaking / opening ceremony with participation of communities<br>- Railway Literary Contest (June to August, prizes given to 20 people in three areas)<br>• Utilization of storytelling type SNS content (blogs and so forth)<br>• Opening KR's amenities and accommodation to people<br>- 12,592 users (Survey results showed all of the respondents were satisfied)<br>• Six major sharing activities led by management based on business capabilities<br>- 2,638 people participated for 15,297 hours |
| Achievements | • Additional selection of five pre-feasibility study business projects<br>• Selection of highly efficient investment projects (Ministry of Land, Transport, and Maritime Affairs)<br>• Significant expansion of new projects (Four in 2012, rising to 13 in 2013) | • Inccreased partner satisfaction (93.2 → 94.8)<br>• Selected as excellent company in win-win growth (Ministry of Trade, Industry and Energy)<br>• Timely promotion of Honam and Seoul Metropolitan High-Speed Railways | • Winning prize at Korea Knowledge Awards (Safety Administration)<br>• Rise in productivity (6σ)<br>• Rise in employee satisfaction (76.4 → 78.5)<br>• Dispute-free collecting bargaining | • Rise in empathy with people (55.5 → 65.8)<br>• Rise in customer satisfaction (94.0 → 94.1)<br>• Winning prize at Community Contribution Awards (Forbes) |

### Communication among KR, Contractor and Subcontractor




* End User: Final user (ex: Material, equipment suppliers and construction workers, etc.)

**Railway Policy Coordination Council**

• Held with Korea Railway Corporation
• Safe construction of and operational cooperation for Honam and Gyeongbu High Speed Railways scheduled to open in 2015

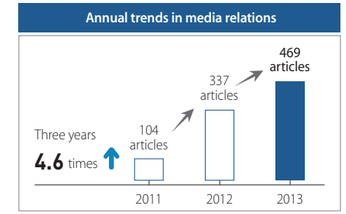
**Partnership discussion**

• Attended by 300 people from partners
• Received recommendations and complaints. Shared win-win growth best practices and sought development measures

**Learning "Dure" (CoP) activity**

• Name of CoP: Community of Practice
• Subjects: all employees
• Number of organizations: 197

**Annual trends in media relations**




• Increase of 4.6-fold over the past three years thanks to spread of positive public opinions such as enhanced features

# Sustainability Key Issues

**Sustainability management is at the heart of the business activities of KR**

## Materiality Test Process

KR followed the ISO 26000 guidelines for the drawing up of major sustainability issues that require attention from management to analyze the internal and external environments and select the most essential sustainability issues for KR and its stakeholders.

- Media Analysis
- Relevant Corporations Analysis
- Trend & Impact Analysis Review of ISO 26000 Performance Level

### STEP 1 Social Responsibility Recognition

**Media Analysis**

From January 2013 through December 2013 there were 8,189 articles analyzed to select relevant issues for studying the internal and external awareness of KR's major sustainability issues.

**Relevant Corporations Analysis**

KR identified its important issues by analyzing the sustainability reports of domestic and international corporations displaying excellent performance levels of sustainability management in terms of ISO 26000 and the GRI index.

**Trend & Impact Analysis**

Surveys on major sustainability issues were conducted for employees in the areas of Trends*/Impact**/Internal Capacity for drawing a list of issues on which KR may have an impact, issues which have an impact on KR, or internal capability issues.

**Review of ISO 26000 Performance Level**

ISO 26000 review tools developed by the Ministry of Trade, Industry and Energy were used to determine KR's social responsibility performance level and to conclude major issues, focusing on identified weaknesses.

* Trends: KR is affected by external economic, social and environmental trends
** Impact: KR damaging the external economic, social and environmental impacts

- Specialists Interview
- Surveys

### STEP 2 Participation of Stakeholders

**Specialists Interview**

KR selected a core group of stakeholders with respect to the legal, financial, and operational responsibilities and levels of influence on the management, and then administered in-depth interviews of six specialists representing each group to decide the specific issues of sustainability management.

**Surveys**

Surveys of the major groups of stakeholders including the employees, customers, business partners, government, local communities and others were conducted to gather various opinions on KR's sustainability management. The results were reflected in the materiality test. The period of the surveys was from May 26, 2014 through June 15. A total of 466 people were surveyed.

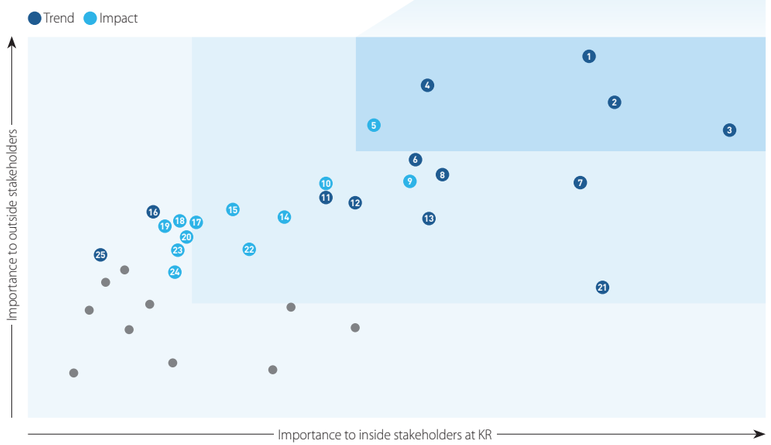
- Deriving key issues

### STEP 3 Major Core Issues

The materiality test was implemented through the relevance evaluation and importance evaluation of the initial 102 sustainability issues. As a result, 25 trend and impact issues receiving 4.5 points or more out of 5.0 were determined as the final core issues to be reported. The test spelled the five top issues. KR intensively reported the five thorough four focused reports.

**Focused Report**

- FOCUS 01 Strengthening Korea Railway's Competitiveness ③, ⑤
- FOCUS 02 Safe Railway Construction ①
- FOCUS 03 Ethical Management ②
- FOCUS 04 Win-Win Growth with Partners ④




**Focused Report**

1. Increase in safety of services and products (railway safety)
2. Increase in demand for transparency of KR (ethical management)
3. Increase in needs for new business
4. Increase in importance of shared growth
5. Contributing to national development by expanding the rail network (indirect economic impact)
6. Increase in various customer needs
7. Expanding importance of talented people
8. Increased competition (roads, aviation, subways, etc.)
9. Anti-corruption
10. Legal compliance
11. Easy access to corporate information (Internet, SNS)
12. Increase in demand for customer information security
13. More interest in governance (management's responsibility)
14. Customer health and safety
15. Energy consumption reduction
16. Environmental damage (air, water, soil pollution)
17. Fair competition and fair trade
18. Greenhouse gases, waste water and waste discharge
19. Participation by stakeholders and reflecting their opinions
20. Compliance with environmental laws
21. Increase in demand for employee welfare and rights (work-life balance)
22. Customer information protection
23. Addressing business conflicts (compensation for land, noise reduction, etc.)
24. The decision-making process and structure
25. Climate change (global warming)

# Focused Report


28 **FOCUS 01** Strengthening Korea Railway's Competitiveness

34 **FOCUS 02** Safe Railway Construction

38 **FOCUS 03** Ethical Management

42 **FOCUS 04** Win-Win Growth with Partners

# 01 Focused Report
# Strengthening Korea Railway's Competitiveness

**KR is growing into a global railway company by overcoming its limitations due to a slowdown in the growth of the domestic railway construction market and creating a new growth engine through advancing into the global market. We will take the lead in increasing the competitiveness of the railway industry through the commercialization, and localization of railway technology. KR will also focus on the implementation of a system that realizes the steady development of Korean railways.**

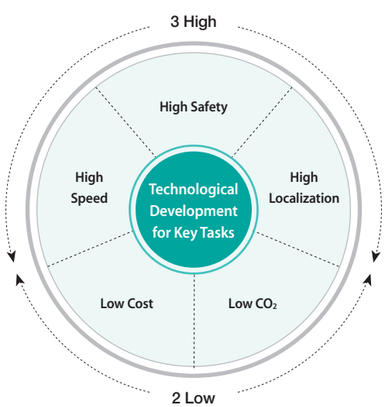
**Kim Dong-jun**, officer at Railway Construction at Ministry of Land, Transport, and Maritime Affairs

The advantages of railways such as environmental friendliness, railways, safety, scheduled operations and mass transit will make railways more important as one of the nation's key transportation networks. In this respect KR plays a pivotal role in the development of Korea's railways. High costs for railway construction make investment decisions difficult and it is not easy to change constructed railway lines. Thus, investment should be made in consideration of a long-term perspective as well as economic aspects. The development of internationally compatible technology holds the key to the strengthening of Korean railways. KR needs to expand its overseas projects to all railway sectors such as design and construction beyond supervision.
I hope that Korean railways with KR at the center will play a key role in the connection between the South and North Korean railways, the Eurasia Initiative and the world railway market.

## Strengthening of Railway Technology Development

### Technological Development for Key Tasks

KR worked out a technology development strategy to secure global-level railway technical expertise and is conducting a total of 48 R&D tasks including 10 strategic tasks.
KR is putting on a final spurt to secure the technological level of developed countries such as the development of a 400km/h high-speed train and infrastructure, the advancement of railway design standards, and the localization of railway supplies.




| | |
|---|---|
| High Speed | • Development of next-generation high-speed train (HEMU-430X)<br>• Development of technology for 400km/h high-speed rail infrastructure |
| High Safety | • Research on standards on prevention of deep underground stations<br>• Development of upper track crossing system for railway bridges |
| High Localization | • Development of rail fastening device localization technology<br>• Development of Korean radio-based train control system |
| Low Cost | • Research on increasing competitiveness in railway construction<br>• Research on fiber input optimization |
| Low $CO_2$ | • Research on greenhouse gas reduction at railway construction sites<br>• Development of railway noise and vibration prediction methods |

### Secure Technology through Development of Practical Techniques

**Core Technology for 400Km/h Speed Train** High Speed | The next-generation high-speed train HEMU achieved the top speed of 421.4Km/h in a vehicle acceleration test in March 2013. KR built up to a 56km-long test bed for testing the stability of the HEMU. KR established standards on the design of a 400Km/h high-speed train including the assessment of the safety of roadbeds, tracks and catenaries in 2014.

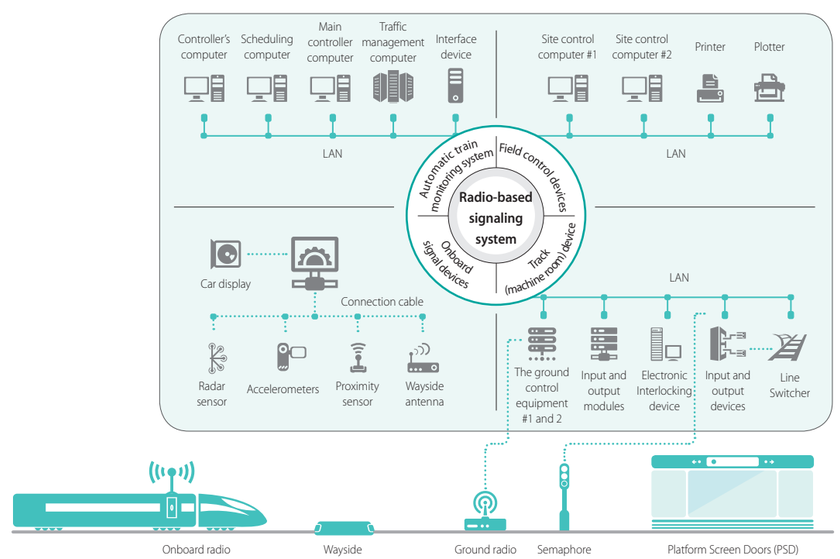
**Standards on Prevention of Accidents at Deep Underground Stations** High Safety | In 2013, KR set standards on the prevention of accidents in deep underground stations that will be built about 40 to 50 meters underground such as those of the GTX. KR set standards on the installation of the fire equipment and evacuation facilities and drew up a smoke management facility and system construction plan through the fire and evacuation simulation analysis and expert advice. Korean Radio Based Train Control System (KRTCS) Development for Enhancement of Signal System.

**Development of KRTCS for Upgrade of Signal System** High Localization | KR developed KRTCS, a complete radio-based train control system for the purpose of weaning itself off foreign signal system technology and upgrading the power of local signal systems. The localization saves KRW 46.3 billion in import costs per year and shortens service intervals, expanding railway transport volume. Furthermore, KR expanded railway traffic by reducing headway and improved our economic efficiency by laying the foundation for entering foreign markets.

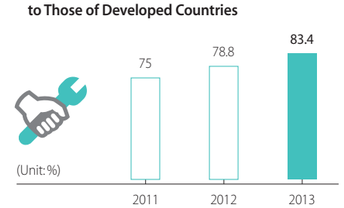
**Next-generation high-speed train HEMU**

| Classification | KTX | HEMU-430X |
|---|---|---|
| Top Speed | 300km/h | 430km/h |
| Power arrangement | centralized | decentralized |
| Formation length | 388.1m(20 cars) | 197.6m(6 cars) |
| Vehicle width | 2,970m | 3,100m |
| Body Material | Steel Body | Aluminum |
| Axle load | 17 tons | 14 tons |
| Traction output | 13,560kw | 9,840kw |

**Korean radio based train control system (KRTCS)**




**Korea's Railway Technological Level Compared to Those of Developed Countries**



# 01 Focused Report
# Strengthening Korea Railway's Competitiveness

**Reducing Construction Cost through Improvement to Design Standards** Low Cost | KR's steady improvement in railway design standards is a big contributor to the safety of railway construction and a construction cost saver. The 62 research projects such as bridges, roadbeds and tracks over the past three years from 2010 led to a revision of standards on railway construction.

**Development of Environmental Technologies** Low $CO_2$ | KR builds a program to estimate greenhouse gas emissions to reduce the $CO_2$ from building railways. GHG emission management manual for railway construction sites is applied to all construction sites. Accordingly, this method is expected to save railway construction sites 820,000 tons of $CO_2$e by 2020.

**Highlights of Railway Design Standard Revisions**

| Areas | Major revisions |
|---|---|
| Geotechnical Investigation | • Classification as a wide survey and inspection |
| Bridges | • The dual standard train load Integration with KRL-2012<br>• Setting standards on circular hollow piers |
| Station | • Decreasing safety allowance for overrunning at platform (train): System such as ground segment (10m to 5m) |
| System | • Changing average tunnel floor illumination: 10 [lx] over → 5 [lx] over<br>• Revising standards on uplift in accordance with international standards |

The Czech Minister of Transportation meets with the CEO of KR

## Entry into Global Market

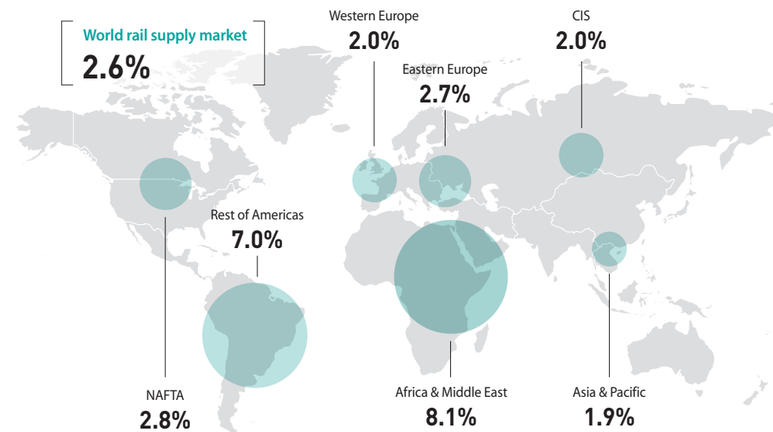
### Overseas Business Strategy

The world railway market is estimated at about 240 trillion won and is forecast to grow 2.6% annually. In particular, the market in the Asia-Pacific region is expected to grow steadily. KR is going ahead with overseas business with its focus on consulting and supervision based on the core competencies. KR is planning to expand into large investment projects (PM and EPC) in the future.

**Mid- to Long-Term Overseas Business Strategy**

| | | | |
|---|---|---|---|
| Vision | Increasing profits, debt reduction and sustainable growth through overseas orders | | |
| Mission | Profit generation through orders | | |
| Target | Posting 700 billion won in overseas business profit in 2020 | | |
| Core Values | Seeking more orders | Sustainable growth | Empowerment |
| Strategic Objectives | Expanding new orders and strengthening marketing capabilities | Efforts for subsequent orders | Enhancing sustainable future sales competitiveness |
| Focus Area | • Developing new markets<br>• Strengthening sales activities in focused market<br>• Expanding advancements into strategic market | • Submitting strategic proposals<br>• Promoting public-private cooperation<br>• Reinforcement international cooperation network | • Orders System Improvement<br>• Utilizing KR's core capabilities<br>• Development of HR for overseas business |
| Measurements | Revenues from overseas projects | Rate of international railway business expansion | Volume of overseas orders |

**Outlook for World Railway Orders**




**Average annual growth rate (2012-2017)**

• 2.6% growth expected each year
• Market size: about 240 trillion (e)

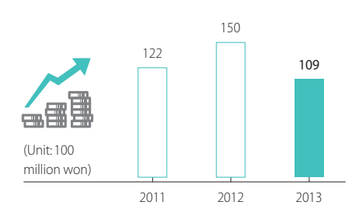
**The main railway market forecast by region**

• Continued growth in the Asia-Pacific region
→ **Latin America, the Middle East and Africa are expected to lead the growth of the world market**

### Receiving More Orders

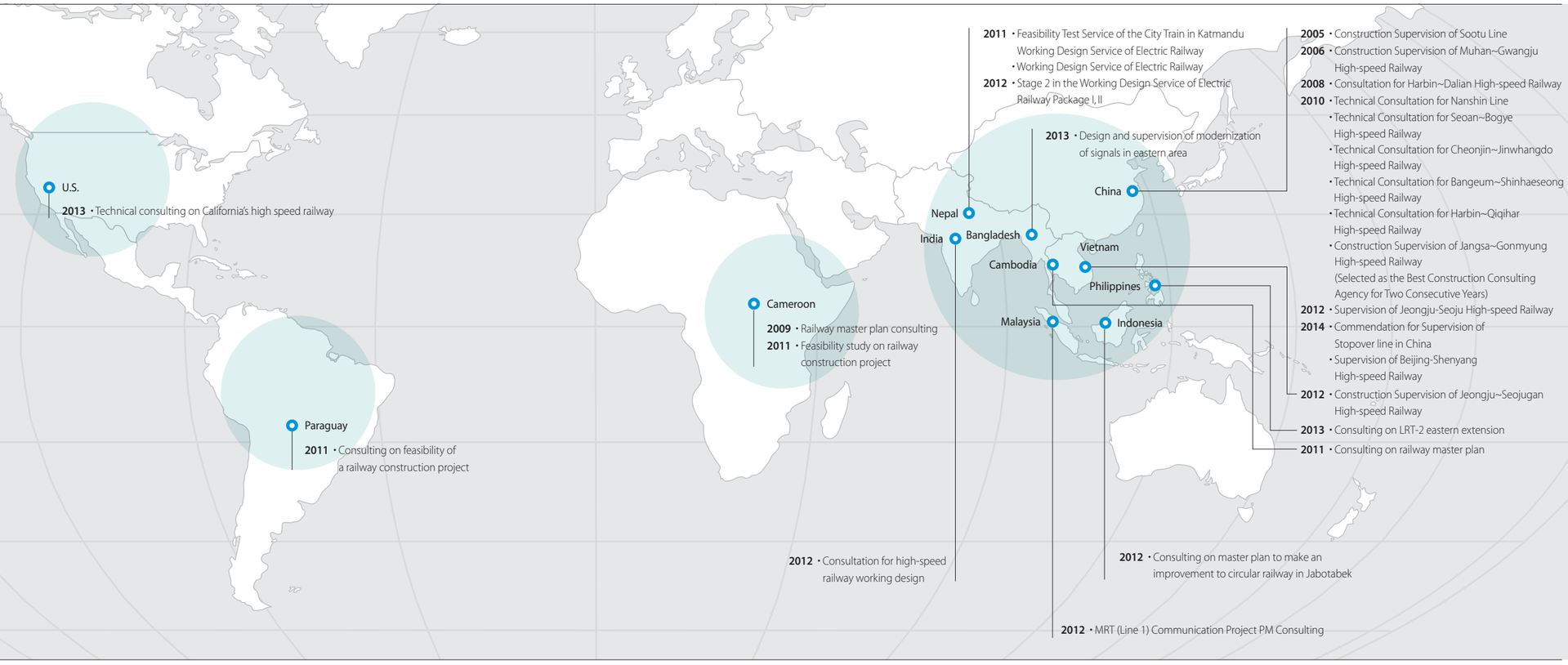
KR is making diversified efforts to advance into overseas railway markets by promoting international exchanges and building a global network in order to enter more countries based on its railway technology. In addition, its focus on key markets in the Middle East and Central Asia is fueling its cooperation and promoting its publicity activities. In addition, the company is participating in bidding processes for railway business in Oman, Bangladesh and Uzbekistan to expand its integration technology-oriented international business such as large investment projects (PM, EPC). In 2013, KR won orders valued at a total of 10.9 billion won by advancing into the United States, Bangladesh, and the Philippines in 2013. In particular, the company secured a foothold in the U.S. market estimated at seven trillion won by winning an order to provide technological consulting on California's High-Speed Railway Project. KR received orders for three consecutive years from the South Asian market by setting it as a target market and conducting strategic sales activities. Our overseas railway projects were expanded to 12 countries in 2013 from nine countries in 2012.

**Overseas Sales**



# 01 Focused Report
# Strengthening Korea Railway's Competitiveness

## Overseas Business Performances




**Overseas Railway Orders**

**12** countries

**32** projects

**84.2** billion won

(2004 to 2013)

## Increasing Sales Competitiveness

### Applying International Standards

Recently high technological levels were required for overseas new orders. Thus, KR increases its competitiveness by reflecting design levels which can satisfy international standards and design and through an improvement in its cost estimating system when submitting its overseas project proposals. KR also acquired integrated international and domestic ISO/OHSAS certification related to safety, quality and the environmental and use the certificates in submitting proposals and letters of intent.

### Training Professionals

KR continues to strengthen our sales competitiveness by nurturing professionals by step and ability. KR offers a variety of customized training programs such as overseas experts' education, language training and PMP training by forming a human resources pool for overseas projects.

Korea-U.K. Railway Seminar

### International Network Construction

KR increases brand value and competitiveness by expanding international exchanges and cooperation. KR is widening its human networks such as signing MOUs with overseas clients and participating in international seminars and railway logistics trade shows. In addition, KR develops business jointly with domestic private companies and lay the foundation for advancing into developing countries through official development assistance (ODA) projects.

Indian high-speed railway seminar

# 02 Focused Report
# Safe Railway Construction

**KR is building a railway network that people can use safely by applying optimized methods from the design stage to the opening of a railway. KR's Quality Management System makes the systematic management of the quality and safety sectors, contributing to the safety construction of quality railways.**

**Park Ji-ho**,
manager at Safety Quality Office at KR

KR is doing everything it can to ensure safety at railway construction sites by placing the Safety Quality Office under the Chairman of the BOD. The office formulates KR's overall safety plan and implements safety checks at hundreds of construction sites across the nation. KR's fast and accurate investigation into accidents find their cause and improvement measures, preventing the recurrence of similar incidents effectively. In particular, we devise preventive measures by analyzing accidents of the past decade and the characteristics of accidents by accidents by types, seasons, time and working periods. We also review the effectiveness of prevention measures and develop improvement methods by continuously monitoring accident reduction with the implementation of the measures at sites. KR will try its best to minimize railway construction accidents by training safety experts in civil engineering, electricity, architecture and tracks in the long term.

## Safe Railway Construction through Quality Management

### Strengthening Quality Management

For the construction of safe, high-quality public railways, KR obtained quality, safety, environmental international certificates, and is pushing forward with safe high-quality railway construction in accordance with international standards. KR is committed to continuous quality improvement by analyzing defects in design, construction and operational phases and making improvements through internal and external ISO/OHSAS reviews. KR found 84 matters for improvements in 2013 and corrected 83 cases except one case that costs too much money compared to its effects. Moreover, the company manages overall levels of its system such as the management's will about quality, resources, products and measurement by evaluating the level of quality management system (QMS) operation. As a result, in 2013, the company scored 852 points (Level 6+), a top level among public organizations in the assessment of their quality management systems of by the Korea Standard Association. KR received outsiders' recognition of the quality of our railways including the Presidential Award from the National Quality Management Contest through an improvement to tunnel construction-related design standards.

**International Standards Quality, Safety And Environment**

Quality: ISO9001 Certification

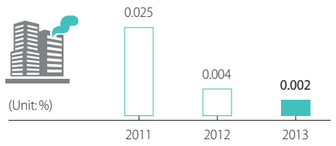
Environment: ISO14001 Certification

Safety: OHSAS18001 Certification

**Winning an Award at the National Quality Management Convention**

**Improvement in Design Standards:** Improvement to steel fiber input into tunnel shotcrete

**Facility Failure Rate***




* The government's indicators to measure the quality of the design and construction of railway facilities (Formula: the number of failures due to facilities / the total length of completed railways)

### Toughening Standards on Earthquake Resistant Design

Earthquake-resistant design is reflected in KR's construction of railway facilities in accordance with safety standards. KR designs and builds railway facilities such as tunnels, bridges and buildings that meet the earthquake resistant design criteria (magnitude: 6 to 6.5 degrees on the Richter scale). Earthquake resistant design was applied to 173 out of 253 facilities such as bridges, tunnels and buildings on high-speed railways as of December 2013. 80 bridges for high speed railway were constructed before 2000 when earthquake resistant design was not strengthened. Therefore, KR is planning to complete the reinforcement of the anti-earthquake nature including these 80 bridges by stages until 2018. Moreover, KR is planning to complete work to enhance the earthquake resistance performances of 388 locations on bridges and in tunnels of general railways which should be armed with anti-earthquake design ahead of others by 2016. As for 1,262 facilities, KR will carry out total inspections and find facilities that need reinforcing and finish reinforcing them step by step by 2018.

**Standards on Earthquake Resistant Railway Design**

| By facility | Standards |
|---|---|
| Railway bridges | I grade (about magnitude 6) |
| Railway tunnels | I grade (about magnitude 6) |
| Railway Architecture | I grade (about 6.5 on the Richter scale) |

### Phased Prevention and Maintenance during Construction

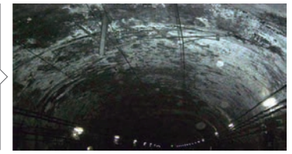
For high-quality railway construction, KR conducts a field-oriented quality inspection and safety check-up from construction to opening according to the safety standards. KR prevents quality defects in advance by specifying sites that need intensive management. At the same time, KR is committed to ensuring quality through a comprehensive test-run before the opening of a railway in addition to regular comprehensive safety audits and inspections of railway facilities. KR fully prepares to secure quality by expanding inspection sites to 3,958 spots in 2013 from 1,602 spots in 2012 and analysing matters for improvement and case sharing. Besides, KR performs rigorous performance tests on materials used in railway construction. KR operates the internationally recognized testing laboratory (KOLAS) and a nationally recognized quality testing organization and steadily sign agreements for industry-academy cooperation and secure professional test equipment.

**Safety Inspection System**

| Management target by phase | Breaking ground | Completion | Opening |
|---|---|---|---|
| Construction Safety Management<br>Traffic Safety Act | Safety checks | | |
| Regional headquarters' safety management<br>Safety management regulations | Comprehensive safety review | | |
| Facilities to be opened<br>Railway Safety Act | | Comprehensive test run | |
| Facilities after completion<br>Special Facility Safety Management Act | | Facility safety inspection | |

**Tunnel Improvement**

Before



After

**Installation of Screen Doors**

Before

After

**Base Reinforcement**

Before

After

# 02 Focused Report
# Safe Railway Construction

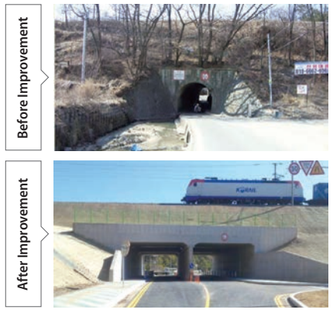
## Expansion of Safety Facilities

KR is steadily strengthening safety features of railway facilities that are used as well as new railways under construction. For the safety of passengers, steady investment is made in improving railway facilities annually. Thus, in 2013, its facility improvement investment reached 333.2 billion won, a year-on-year increase of 69%. KR is making improvements to outworn facilities, disaster prevention facilities, and firefighting facilities in a timely manner in order to ensure the safety of train operation. In addition, we made steady improvements to facilities such as building an underpass after removing a crossing, expanding soundproof walls and improve buildings loaded with asbestos. Through these efforts, KR is able to contribute to improve people's lives and health.

**Enhancing Safety Facilities in 2013**

| Classification | | Details of projects |
|---|---|---|
| Safety enhance-ment | Safety for fire fighting | • Complementary measures for tunnel emergency facilities (2 places finished, 14 places in progress) |
| | Facilities | • Complementary measures for moving facilities such as elevators (4 stations) |
| | Disaster prevention | • Improved various facilities for prevention of storms, floods and natural disasters<br>- Expansion of one bridge (15 places in progress), 11 bases reinforced, 13 sewer facilities, eight places to prevent landslides, 15 retaining walls |
| | Seismic resistance capacity reinforce-ment | • Seismic augmentation for earthquake resistant design standards for all facilities<br>- 66 bridges, 18 tunnels |
| | Platform safety facilities | • Screen door installation for the prevention of accidents (8 stations) |
| Improving the living environment for people | Crossing facilities | • Offering transportation convenience such as expanding passage boxes, changing crossings into underpasses or bridges (4 places) |
| | Soundproofing | • Soundproofing barrier installation along railways (16 places) |
| | Elevator | • Elevator installation for the disabled (4 places) |
| | Asbestos removal | • Improving asbestos-containing roofs (10 places) |
| Improving old rail operation facilities | • Improving 103 out of 1,010 places<br>• Improving 1,249 of 12,403 electric facilities | |

**Improvement of Railway Crossing Facility**



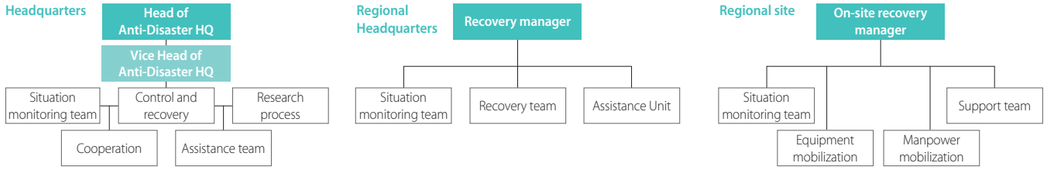

## Anti-Disaster Drills

KR constantly improves its disaster preparedness to secure the safety of rail network users. We built a cooperation system with related organizations (KORAIL and fire departments) according to the disaster management plan. Regular training exercises are conducted to cope with emergencies from disasters such as heavy rain, snow and earthquakes. Moreover, we educate workers and holds working-level council meetings on safety with KORAIL to ensure the safety at construction sites. Furthermore, an anti-landslide monitoring system enables KR to immediately take measures against landslips.

Anti-Disaster Drill

Working-level Council on Safety at Railway Construction Sites

**Organizational Chart of Anti-Disaster HQ**




## Safety Management at Railway Construction Sites

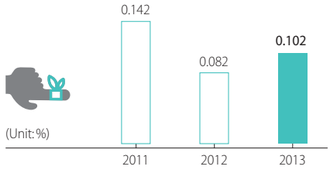
### Prevention of Safety Accidents at Construction Sites

KR established safety control measures through the annual analysis of accident cases and risk assessment work to make railway construction sites accident-free. KR eliminates causes of accidents by finding them prior to work and manages vulnerable locations classified into three grades by risk levels. In particular, we devised prevention measures by taking into account past cases where accidents happened to new workers and vulnerable places. KR made it compulsory for workers to start to work after checking safety matters by procedures. In addition, KR built a construction accident database and conduct work safety and suitability tests regularly with the aim of creating a safe workplace for construction workers. KR is also operating a CCTV-based safety management system such as CCTV-based real-time monitoring. We respond rapidly to emergency situations such as the operation of safety control rooms and issuing safety alerts to site managers and site supervisors and KR employees after newsflashes about inclement weather. KR is thoroughly prepared against disasters by preparing 26 disaster scenarios based on simulated drills at construction sites. KR registered an accident rate of 0.102% in 2013.

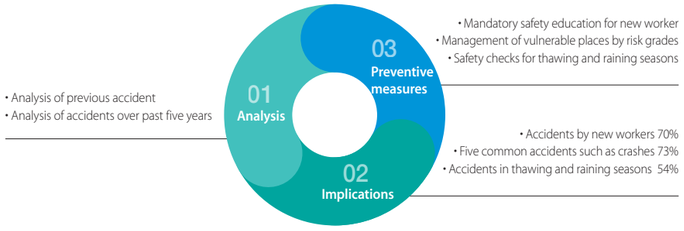
**Checks of Vulnerable Sites**

| Classification | | 2012 | 2013 |
|---|---|---|---|
| Vulnerable places | Risk stage | 231 | 274 |
| | Alert stage | 112 | 101 |
| | Attention stage | 70 | 72 |
| | Total | 413 | 447 |
| Check rate (%) | | 100 | 100 |

**Accident Rate**




**Devising Safety Measures**




### Safety Education

KR conducts self-safety education for all field workers even including personnel of partners. Safety education is mandatory for all workers at worksites. Our self-safety education including safety near railways and the use of helmets and safety nets raises laborers' awareness of safety and eradicates risk elements at worksites, thus preventing accidents.

DIY Safety Education

**Safety Education in 2013**

| Classification | Subjects | No. of participants |
|---|---|---|
| Integrated quality, environment, safety management education | Corporation Officer, Examiner of ISO/OHSAS certification | 216 |
| | Partner staff | 47 |
| Safety Experience Training (mandatory) | Staff of partners | 36,077 |
| Regular safety education | KR officer, Managers of partners | 3,312 |

# 03 Focused Report
# Ethical Management

**KR strives to grow into a public corporation, earning the citizens' support and trust through strong ethical management. We are going ahead with various education programs and activities for the internalization of ethical management on the basis of our ethics charter, the principles of our ethical management behaviors.**

**Jeong Jun-hyeon,**
professor of law at Dankook Univ.

KR has large economic and social impacts and accordingly shoulders heavy ethical responsibility as an agency responsible for the construction of railways, the backbone of Korea's transportation. Amid many outsiders' negative views on KR's business, I met those in charge of KR's regional offices and attended meetings as a representative of the ombudsmen. Railway construction face resistance from land owners unlike other construction projects. But I could see KR employees strived to save budgets by guaranteeing transparency in design, construction and bidding. I judge that systems like verification systems such as a whistleblower system and public reporting and employees have high integrity. But as for integrity issues, accidents can happen at any time if we are not attentive enough. I hope that KR will build a transparent and clean image through steady management and improvement.

## Promotional System of Ethical Management

### Strategic System of Ethical Management

KR devised general ethical management measures under the vision of the "Realization of Shinbaram KR, Transparent, Clean, and Trusted by the Public." Its ethical management involves systems, education, evaluation and compensation that enhance its executing power. In addition, the company manages performance, monitors ethics and integrity through its ethical management system. The system allows the company to counsel, receive reports, diagnose, look into real-time integrity and identify improving measures for integrity VOC. The results are reflected in performance management.

Ethical Management System

### Implementation Organization for Ethical Management

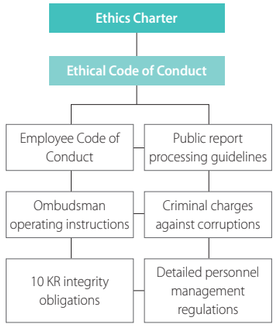
KR recently established the Anti-Corruption and Ethical Management Committee and KR's vice chairman assumes a chairman of this committee. The committee deliberates and resolves major items on ethical management with advice from the Integrity ombudsmen and the Audit and Advice Committee. The Ethics and Originality Department is in charge of ethical management. At the beginning of every year, an ethical management plan is formulated and implemented companywide. In addition, ethical action groups enhance the implementation of ethical management. The Integrity Supervision Team is expanding corruption prevention and a self-controlled corruption culture.

**Ethical Management Organization**

| | |
|---|---|
| CEO | Head |
| Anti-Corruption and Ethical Management Committee | Review/Resolving Organization |
| Integrity Ombudsmen | Advice (system improvement) |

| | |
|---|---|
| Audit and Advice Committee | Audit direction review (advice) |
| Ethics and Originality Dept. | Ethical Management Office |
| Ethical action groups (integrity keeper) | Implementing organization |
| Integrity Supervision Dept. | Permanent corruption watchdog |

→ Ethical Standards




**【 Excerpt from Ethical Charter 】**
KR should establish the Ethical Charter which serves as standards for all employees' value judgment and behaviors. Employees should honor the charter.

**【 Excerpt from Ethical Charter 】**
**[01] Basic Ethics for Employees**
Employee should have job ethics and strong will to eradicate any wrongdoings and corruptions and endeavor to establish the image of an upright and clean public official.

**[02] Ethics for Customers**
If an employee obtains customer information, he or she should not leak or use it for other purposes without prior approval of customers... (ellipsis)

**[03] Ethics for Business Partners**
KR should grant equal business opportunities to all qualified companies based on the principle of free competition

**[04] Ethics for Employees**
KR should grant equal opportunities to employees depending on their skills and qualifications... (Ellipsis) ... Employees should not be discriminated against due to their gender, education, ages, religions, origin and physical disability

**[05] Ethics for State and Society**
KR should be free from politics... (Ellipsis)

**[06] Anti-Corruption and Ethical Management Committee**
KR should establish an anti-corruption and ethical management committee to review and determine matters about the implementation of anti-corruption measures and integrity work.

## Ethical Management Activities

### CEO's and Executives' Taking the Oath for Ethical Management

Each year the CEO and executives participate in the ethical oath-taking event of the BEST Forum for the purpose of positioning itself as a public institution that people trust. In 2013, the vice president expressed KR's commitment for ethical management through his handwritten vow at the BEST Forum. KR reaffirmed the principle that ethics is its business competitiveness. KR conducted a rally for management's commitment for integrity and employees' resolutions to pledge the implementation of ethical management. This allows the management and all employees to share practices there by internalizing ethical management and complying with the Employee Code of Conduct.

Rally for Promoting Integrity

### Anti-Corruption Activities through Improvement in Systems

KR abolished articles and clauses in contracts that give favors to its former employees to root out old practices to give subcontracting work to them. Previously, when assessing designers and supervisors in the field of electricity and telecommunications, KR regarded a former KR employee's one year of service as his or her successful project (one project per year). The abolishment of the rule helped create a level playing ground for small companies and latecomers without any former KR employees. We strived to eliminate controversies over preferential treatment for specific partners by devising measures to restrict KR retirees from entering job-related companies at least for one year after their retirement. In addition, we began to accept reports anonymously to thoroughly handle law violations in railway safety, construction and facility sector in 2013. Therefore, the number of reports increased to 11 cases in 2013 from one in 2012.

Signing Ceremony for Job Integrity Agreement

# 03 Focused Report
# Ethical Management

## Ethical Program

KR is running various ethical programs such as self-diagnoses and integrity campaign spreading across the company to raise ethical awareness. KR has been operating the Integrity Ombudsman Group consisting of external experts since 2007 in order to improve absurd systems from the perspective of the people. In addition to operating the "Clean Report Center," we constantly receive reports on wrongdoings, illegal requests and corruptions. We are strongly committed to the prevention of corruption through integrity crisis management meetings, integrity policy meetings and workshops of integrity agreements.

## Integrity Education for All Employees

Newly hired and promoted employees and executives above the level of directors received an additional eight hours of integrity education. Besides, employees are given education on sexual harassment, domestic violence, prostitution and sexual violence for over four hours a year. In addition, CEOs' Monthly Integrity Letter helps spread KR's integrity culture. Empathy about companywide ethical management is created by way of special education by executives and mentoring for departments with poor integrity.

## Results of Integrity Survey

KR is managing its ethical management and integrity level through a wide array of activities in order to spread its companywide ethical culture. KR's score rose by 0.14 from the previous year in a survey by the Anti-Corruption and Civil Rights Commission. KR obtained an Excellence grade in the evaluation of anti-corruption competitiveness. In the future, we will steadily push forward with ethical management such as giving a boost to anti-corruption and public reporting activities and expanding special supervision activities through the expansion of the One-Strike-Out system into partners.

**Results of Integrity Survey by Civil Rights Commission**

| Classification | | 2011 | 2012 | 2013 |
|---|---|---|---|---|
| Results of integrity survey by Civil Rights Commission | Global Integrity Rating (rating) | 8.81(Ⅲ) | 8.22(Ⅳ) | 8.36(Ⅲ) |
| | External Integrity | 8.98 | 8.31 | 8.47 |
| | Internal integrity | 8.55 | 8.72 | 8.28 |
| Anti-corruption and competitiveness evaluation by Civil Rights Commission (rating) | | Good (Ⅱ) | Average (Ⅲ) | Good (Ⅱ) |

## Anti-Corruption Measures

KR takes measures against corruption in compliance with personnel management regulations and audit regulations. The "One-Strike Out" rule is strictly enforced. Therefore, an expulsion is required for accepting more than one million won. On the other hand, with a joint liability system in place, the boss of a violator should be held accountable. Like this, we strictly hold those who commit corruption responsible.

**Achievements of Integrity Ombudsman System in 2013**

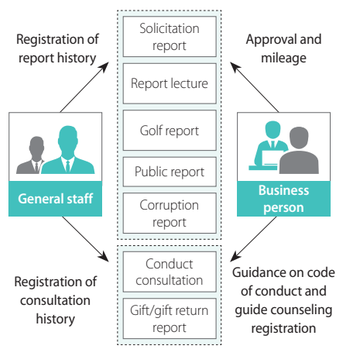
**System Improvement (15 cases)**

- Review of on-site design changes
- Operation of Design Advice Committee
- Measures to eradicate preferential treatment to former KR employees

**On-site activities (three times)**

- On-site surveillance and monitoring

**Corruption Report Center**




**Mandatory Employee Integrity Training**

**Employee Code of Conduct**

Article 47 (Integrity Education) Employees should complete training hours specified in the following.

**New recruits:** Eight hours
**Newly promoted employees:** Eight hours
**Managers or higher:** Eight hours per year
**Employees:** Four hours per year

## Internal Audit System

KR is strengthening internal checks by creating a professional and independent audit infrastructure and carrying out strategic audit activities. In particular, KR is committed to thoroughly preventing the irresponsible management of public institutions, which has become a major national issue. .

Audit Advisory Committee

## Building Independent and Professional Audit Infrastructure

KR ensures the independence of audit work by building bases in the whole area, such as audit, HR, evaluation and budgets. The Audit Office also operates the Audit Advice Committee consisting of external experts such as lawyers and accountants in order to enhance the professionalism of audit work. External experts objectively diagnose the levels of six audit sectors such as audit strategy, audit organization and audit staff. The Audit Office is continuing with improvement projects to eliminate any weaknesses uncovered. In particular from October 2013 to January 2014, KR revised our strategic goals, tasks, and performance indices by redefining mid- to long-term audit strategy.

**Mid- to Long-Term Supervision System**

| | | | |
|---|---|---|---|
| Vision | Integrity-Based Audit for KR's Management Efficiency | | |
| Audit Philosophy | Earning trust through rational audit based on professional auditors | | |
| Core Values | Professionalism | Value creation | Leading Change |
| Strategic Objectives | Strengthening auditing capabilities | Advancing audit system | Risk management upgrade |
| Strategic Tasks | • Strengthening auditors' specialties<br>• Advancing audit performance management system<br>• Boosting knowledge management activities | • Establishing risk-based audit system<br>• Establishing standard audit process<br>• Reinforcing system to prevent recurrences | • Reinforcing business support consulting<br>• Reinforcing internal control system<br>• Promoting integrity and ethics activities |

## Measures to Strengthen Internal Checks

The Audit Office conducts specific audits on high-risk groups selected through annual risk assessment. In 2013, we conducted audits on four high-risk groups including areas such as careless management and service contractors. We also check general risk by monitoring self-diagnostic checklists, continuous monitoring systems, routine audit, and corporate credit card monitoring with the goal of preventing irresponsible management. Moreover, the office carried out corruption impact assessment when devising and revising regulations along with standing auditors' integrity education at regional headquarters, improvement in the corruption report system, a hotline with standing auditors, and cross-inspection with external organizations. These activities earned KR a higher integrity level compared to the previous year and helped KR obtain an excellent grade in the management of public workers among organizations under the Ministry of Land, Infrastructure and Transport. The office prevents error cases from recurring through local meetings to assess findings, the BOD's discussion of audit results, and the publication of audit casebooks.

Standing auditors' integrity education at regional headquarters

Auditors' workshop

# 04 Focused Report
# Win-Win Growth with Partners

**KR is creating a shared-growth culture through the establishment of the railway construction industry, customized support for SMEs and win-win growth. To this end, the company devises strategies to support its partners and reinforces collaboration for customized support for small companies, the establishment of fair trade and a shared-growth culture.**

**Hyun Young-ok,**
head of the Supervising Team at Dongbu Engineering

We have been supervising railway construction since 2002 when the Office of Korean National Railways still existed. The founding of KR paralleled a lot of improvements in the win-win cooperation with partners. In particular we strived for mutual growth with SMEs and subcontractors. I think it is important to pursue shared growth with partners since partners perform actual work. This will help enhance the level of Korea's railways and railway technology. We need to reduce the frequency of changing the design of the project construction by strengthening design stages for the long-term development of the railway industry. Fast land compensation is needed to speed up business progress. Thus, we hope that KR will endeavor to create an environment in which everyone including partners, supervisors and subcontractors can prosper.

## Implementation System for Shared Growth

### Strategy and Organization for Shared Growth

KR maintains a fair relationship with suppliers through efforts for win-win growth such as fair trade agreements and improvements to the contract system based on a win-win growth strategy. In addition, we operate the Shared Growth Team in order to perform systematic shared growth work. The team is dedicated to mutual growth and draws up and implements shared-growth plans and promotes a shared-growth culture.

**Shared-Growth Strategies**

**Slogan** | "Eradicating Unfair Practices and Promoting Shared Growth"

| Establishment of Fair Trade for Healthy Construction Industry | Customized Support for SMEs | Strengthening Collaboration to Establish Shared-Growth Culture |
|---|---|---|
| • Strengthening supervision of payments to partners<br>• Signing fair trade agreements<br>• Reinforcing inspection of subcontract management practices<br>• Correcting unfair contract system<br>• Promoting use of standard contracts<br>• Rewards for reports of illegal subcontracts | • Joint public-private investment and technology development<br>• Expanding joint subcontracting system for main contractors<br>• Support for joint overseas business<br>• Support for quality competitiveness<br>• Protection of SMEs' core technology<br>• Purchase of SMEs' products<br>• Expand joint compensation system<br>• Expanding support for research facilities | • Expanding Shared-Growth Council<br>• Operating Shared-Growth Messenger System<br>• Support for capacity development<br>• Operating Unfair Subcontracting Resolving Center (Support Center for SMEs) and Shared-Growth homepage |

Providing feedback on activities | Conducted quarterly inspection meetings, giving prizes to excellent departments, increasing power by reflecting department evaluation and compensation

Agreement Signing Ceremony for Fair Trade

Anti-Illegal Subcontracting Center

### Creating Win-Win Growth Culture

KR is conducting two-way communication with partners by operating various on-and offline channels such as the Anti-Unfair Subcontracting Center, the SME Support Center, Win-Win Debate and the Win-Win Growth Cyber Center. KR is constantly correcting irrational practices and institutions by collecting partners' difficulties through the correct channels. For example, KR listens to the voices of people on worksites, share knowledge in worksite operation and accept damage caused by unfair practices.

Shared-Growth Debate

### Selecting Partners

KR is selecting partners thorough transparent procedures in accordance with supplier assessment criteria. In particular when evaluating, we highly value the fulfillment of social responsibility such as violations of environmental laws and regulations, accident rates, unfair trade practices, breach of integrity contracts, energy efficiency, green technology and green business certification. In addition we check basic facts of partners such as performance, construction records, and management status. If a project is joint work, the company promotes the participation of local partners by giving them more points. KR gives more opportunities to SMEs by limiting the participation of big companies in certain sectors including geological surveys and explorations.

## Shared Growth Activities

### Contract System Improvement for Protection of the Economically Weak

KR imposes fines on companies caught unfair subcontract and deduction of construction periods against them during bidding processes, and fundamentally uproot unfair practices and unfair practices by ordering companies at railway construction sites. In addition, KR gives additional points to companies that received high points from the Shared Growth Committee and good evaluations from the Fair Trade Commission when they take part in KR's bidding processes. However, KR excludes the application of additional points to big companies in order to protect SMEs if SMEs have participated in the bidding.

**Newly Setting a Rating Standards to Give Additional Points to Companies in terms of Shared Growth**

**Items that assess credibility of preliminary screening criteria for bidding qualifications (additional points)**

- Those who scored high points in shared growth evaluation by the Shared Growth Commission (2 (excellent), 1 (good))
- Those who scored high points in evaluation of fair trade by the Fair Trade Commission (1 (best), 1 (excellent)

<Note> This is applicable only when only big companies take part in PQ.

KR abolished articles in contracts that regard a former KR employee's one year of service at KR as his or her successful project (one project per year) when he or she takes part in KR's bidding processes. A system was changed to recognize experiences of participating in the urban and light railways business as the same experience as participating in KR's projects. In addition, KR operates a fair and transparent contract system such as composing all members of the bidding proposal evaluation committee as external experts in selecting design and supervision partners. This eliminates barriers against SMEs' participating in railway projects and expands the bidding eligibility of new players. In this way, KR is actively taking part in disseminating a government-led fair trade culture.

**Eradicating Preferential Treatment for Former KR Employees**

| Before | After |
|---|---|
| Regarded a former KR employee's one year of service at KR as his or her successful project (one project per year) when he or she takes part in KR's bidding processes. | Abolished |

**Improving Standards on Bid Evaluation**

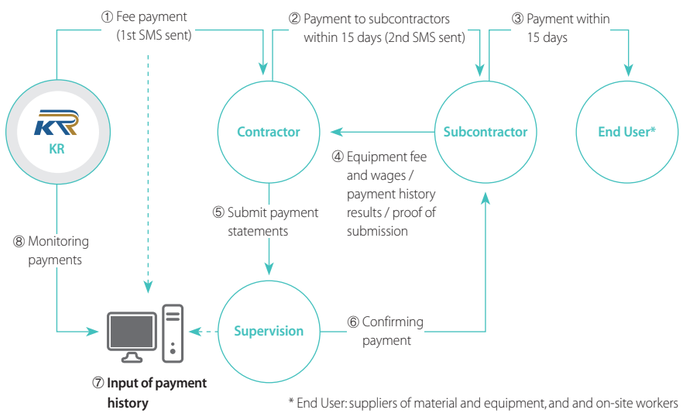
| Classification | Before | After |
|---|---|---|
| Trackbed | Similar area (80%)<br>• Urban, light and magnetic levitation railways | Same area (100%)<br>• Conventional, high-speed, urban, light and magnetic levitation railways |
| Electricity | Same area (80%)<br>• Transmission lines and substations for railways | Same area (100%)<br>• 154-plus KV Transmission lines and substations |

# 04 Focused Report
# Win-Win Growth with Partners

## Timely Payment of Money to Workers at Construction Sites

For the prevention of overdue wages for construction workers, we are constantly monitoring payment of construction fees flowing through a computer system to verify that fees are paid for suppliers of materials and equipment, and on-site workers in a timely manner through subcontractors. KR checks payments in the final stage since most of the construction fees are unpaid in the final stage between the final subcontractor and companies of materials and equipment, and workers in real time.

**Check Payment Systems**




* End User: suppliers of material and equipment, and and on-site workers

## Customized Support for SMEs

### Capital Fluidity Assistance

KR also operates a direct payment system for contractors for which KR paid the subcontract price in case the primacy contractor could not make a payment due to poor financial standing. In 2003, the company directly paid 223.2 billion won of subcontracting fees to 339 companies. A special assistance team for making payments in preparation of delayed payments during holidays also supports billing and financial work.

### Capability Development Program for Business Partners

KR established the green rail network graduate school in 2012, offering masters and doctorate programs to business partners. In addition, educational programs on the quality, environment, safety and health management system and PM work are provided to nurture experts among business partners. As many as 3,624 employees of partners completed the programs in 2013. Furthermore, KR paid a certification cost of 13 million won for four partners to establish the Product Management System (PMS) at them to increase their quality competitiveness.

**Educational Program for Partners**

| Curriculum | No. of People |
|---|---|
| PM Course | 26 |
| CS mentoring support process | 200 |
| Quality Management System | 25 |
| Environmental Management System | 21 |
| Occupational Health and Safety Management System | 34 |
| 2nd Green Railway Graduate School | 6 |
| Safety Training | 3,312 |
| Total | 3,624 |

Green Railway Graduate School

### Technological Assistance to Business Partners

KR set aside the R&D Cooperation Fund to push forward with joint government-private investment in the development of technology. In 2013, the company pursued joint development of three technologies such as insulation dividers, single-phase load break switch and thermit material. We supported SMEs' development of ten R&D items to help their technological development and let them use KR's research facilities and materials.

### Expansion into Global Markets

KR is implementing joint marketing by forming a consortium with private partners for the systematic expansion of overseas markets and the strengthening of the global competitiveness of SMEs. The company shares overseas bid information, utilizing the railway industry information center and takes part in international events such as international conferences. In 2013, we received four orders by making a foray into three countries including the United States and Nepal with SMEs.

KR also takes pains to strengthen the international competitiveness of SMEs such as dispatching KR delegations with employees of SMEs.

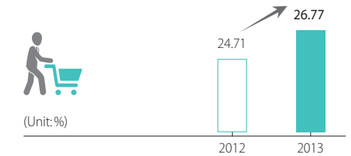
**Shared Growth with SMEs by Numbers**

| Per items | | 2011 | 2012 | 2013 |
|---|---|---|---|---|
| Purchase of SMEs' Products | Total purchases(A) | 1,111.8 billion won | 1,151.6 billion won | 1,366 billion won |
| | Total budget (B) | 4,009.3 billion won | 4,661.4 billion won | 5,103.2 billion won |
| | Percentage of total purchases(A/B) | 28% | 24.71% | 26.77% |
| Support for R&D | No. of cases and participating companies | 2,6 | 6,7 | 10,13 |
| | Joint R&D budget | 649 million won | 2.07 billion won | 2.157 billion won |
| Support Performance | No. of projects | 4 | 2 | 4 |
| | No. of cooperating private companies | 4 | 3 | 4 |
| | Project volume | 7.2 billion won | 340 million won | 12.8 billion won |
| Investing in SME Mutual Funds | | - | 96 million won | 104 million won |
| PMS certification costs | | 8 million won | 3.6 million won | 13 million won |
| Support for Capacity Building | | 412 people | 2,200 people | 3,624 people |

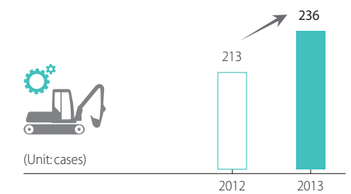
## Achievements of Shared Growth

Partner satisfaction rose to 94.85 in 2013, from 93.25 in 2012, on the strength of KR's efforts for shared growth and a fair society. These efforts earned KR an excellent grade in the evaluation of public organizations in shared growth by the Ministry of Trade, Industry and Energy. Therefore, KR obtained the highest grade for three consecutive years.

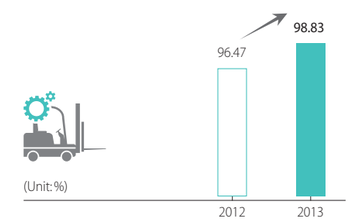
**Percentage of Purchases of SMEs' Products**



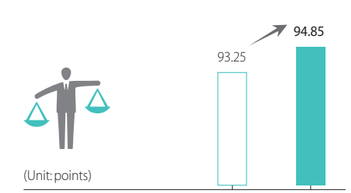

**No. of SMEs' Participating in KR's Projects**




**Project Participation Rate of Local Companies**




**Partner Satisfaction**



# Economic Performance


48 Financial Soundness

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52 Economic Performance Summary

**INTERVIEW**

**Shin Dong-sik, manager of financial strategy at KR Planning and Finance HQ**

"The main mission of the KR is to build railways and manage facility assets on behalf of the goverment. KR finances 50% to 60% of the costs for high-speed railway projects by issuing bonds in accordance with financial plans. It was originally planned that KR would pay its share of the expenses by collecting track access charges from KORAIL which is the rail operation company. Track access charges of the high-speed railway even fall short of paying the interest cost of the construction bonds. A lack of money to pay the interest leads to an increase in debts. The government designated 18 organizations including KR as those which need to pay more attention their debts in accordance with financial normalization policy of public organization. Thus, the government is strengthening their debt management such as reviews of the implementation of debt reduction plans and segment accounting system. KR launched the Management Reform Team headed by the chairman to quickly respond to the government's plan to strengthen debt management.

Companywide efforts are being made to improve KR's financial structure such as the generation of revenues, reduction in investment costs and the enhancement of management efficiency. KR manages progress in its debt reduction plan through the Office of Financial Strategy established in June 2014 to handle strategic and financial management, accounting and taxes. Until 2017, KR will concentrate on making diversified efforts such as restructuring, cost saving, selling off assets and generating profits in order to achieve debt reduction targets (1.2 trillion won) and improve its financial structure."

# Financial Soundness

**KR draws up a comprehensive debt management plan for financial soundness in conjunction with management strategies. The company implements a sustainable management system through efforts such as expanding rental income using railway assets and efficient budget management to reduce costs.**

## Causes of Debt Increases that Undermine Financial Soundness

KR is a special non-capital corporation founded to provide transportation convenience to people and a commissioned quasi-government agency that carries out the government's work. Depending on large-scaled funding, the company is carrying out SOC projects. The company paid some of the costs for high-speed railway construction in accordance with financial burden ratios (65% of the cost for the first stage of the Gyeongbu high-speed railway project, 50% of the costs for the Honam high-speed railway project and 60% of the costs for the metropolitan high-speed railway project) by issuing bonds. This results in liabilities and over 85% of KR's total revenue comes from the use of railways. But the revenue is 26% of the interest cost. Thus, KR lacks financial resources to pay its debts.

## Short- and Long-Term Strategies for Debt Management and Reduction

KR executes short-term and long-term strategies by taking into consideration the causes and nature of the debts and the status of business progress. We are committed to securing our viability through debt reduction.

**Short-term strategy**

First, self-help efforts

- Lack of new investment and track access charge is expected to trigger sustained increase in debts
  - ➔ Suppressing increase in debts by cutting down on costs

**Long-term strategy**

Later, policy support

- Limit in suppression of debt increase through self-help efforts
  - ➔ Making improvements to systems of track access charge and state-owned asset sales
  - ➔ Reducing debts by increasing income

【Short-Term】 Reducing costs such as improving construction methods ➔ Reinvesting expense savings ➔ Reducing total project costs ➔ Inhibiting increase in debts

【Long-Term】 Increasing income through policies to improve policies such as track access charge and asset sales ➔ Debt reduction ➔ Financial improvement

## Efforts for Financial Improvement to Curb Increase in Debts

KR has created a tangible financial performance since 2010 through efforts for financial improvement such as forming a financial improvement team in 2008.

**~ 2008**

- Started to generate income on full scale (target: 200 billion won)

**2010**

- Established liability-specialized department
- Formed financial restructuring TF team (3 teams of 15 units)

**2012**

- Established long-term financial plan
- Built segment accounting system
- Raised credit rating by two grade

**Late 2013 ~**

- Pushing forward with managerial reform to cut down on debts and wiping out irresponsible management

### Track Access Charges Compared to Interest Costs in 2013

(Unit: 100 million won)

| Classification | Track Access Charges (A) | Interest Costs(B) | A/B(%) |
|---|---|---|---|
| 2004 | △218 | 2,003 | △10.9 |
| 2005 | △259 | 2,764 | △9.4 |
| 2006 | 25 | 3,084 | 0.8 |
| 2007 | 1,022 | 3,555 | 28.7 |
| 2008 | 933 | 3,305 | 28.2 |
| 2009 | 858 | 4,111 | 20.9 |
| 2010 | 949 | 4,627 | 20.5 |
| 2011 | 1,640 | 4,415 | 37.1 |
| 2012 | 2,175 | 4,416 | 49.3 |
| 2013 | 2,407 | 4,615 | 52.2 |
| Total | 9,532 | 36,895 | 25.8 |

* Railway use fees account for 26% of interest costs

### Improvements in Total Income

(Unit: 100 million won)

| Classification | Amount | Rate (%) |
|---|---|---|
| Operating income | 5,896 | Increase from previous year |
| Non-operating income | 320 | |
| 2010 | 6,216 | - |
| Operating income | 7,326 | 124.3 |
| Non-operating income | 443 | 138.4 |
| 2011 | 7,769 | 125 |
| Operating income | 7,807 | 106.6 |
| Non-operating income | 534 | 120.5 |
| 2012(I) | 8,341 | 107.4 |
| Operating income | 8,105 | 102.2 |
| Non-operating income | 516 | 95.9 |
| 2013(I) | 8,621 | 101.8 |

* (I): IFRS

## Efforts to Suppress Debt Increase

| Self-help Efforts | Construction project cost savings | Cutting expenses | Increased income |
|---|---|---|---|
| Implementation efforts | • High-speed railway construction<br>• Improved construction methods<br>• Facility size optimization | • Issued low-interest bonds<br>• Repaid high interest rate loans<br>• Adjusted time for issuing bonds | • Property rental income<br>• Profits from overseas business<br>• Income from project management |
| Results of Implementation in 2013 | Savings of 164.5 billion won in High-speed railway construction | Savings of 148.1 billion won by decreasing interest rates of debts | Expanded income such as asset-related income (175.2 billion won) |

## Building and Operating Systems for Financial Soundness

KR is stepping up its efforts such as setting budget-efficiency goals by sectors through a budget TF team and the team's managing performances. In addition, a permanent audit system to reduce costs monitors the adequacy of budget use.

| | |
|---|---|
| Devising budget-saving measures | • Formulated 2013 budget reduction target and implementation plan: Launched and ran TF team (Director: Chairman)<br>• Established and implemented annual management fee savings plan (draft) |
| Budget-saving action plan | • Reviewed and analyzed results of savings such as improved construction methods and use of administrative expenses<br>• Collected ideas from employees, partners and people through operation of a budget saving center: Incentive reviews and rewards for performances from October to December. |

**Establishing monitoring system**

- Continuous monitoring system (Audit Office)
- SAP management (budget unit)

➔

**System utilization**

- After checking adequacy, took action against illegal matters

➔

**Achievements and reflux**

- Maximized misused budgets
- Recovered misused budgets and shared cases

## Slashing Costs via Systematic Budget Management

KR is striving to achieve investment efficiency and budget-saving targets by mapping out plans based on budget-reduction targets and checking the execution of budgets.

| Operation plan | Setting reduction targets | Drawing up operational plans | Increasing transparency | Maximizing the effect |
|---|---|---|---|---|
| Recurring expenses | Savings: 6.8 billion won Setting (11.5% in total) | Reinforcing frequent allotment, Establishing frequent adjustment fees | Monthly Executive Council, Quarterly review analysis | Surpassing targets (165 billion won) |
| Capital budget | Savings: 303.3 billion won Setting (10% in total) | Quarterly allocation and formulating implementation plan | Check budget meetings and site inspections | Surpassing target (491.4 billion won) |

## Enhancing Investment Efficiency through Reinvestment of Saved Budgets

KR increased investment efficiency by moving budgets saved in a year to other sectors of the same project or other projects for reinvestment.

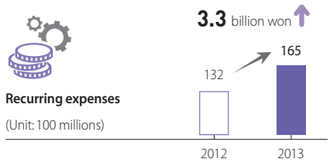
### Budget Savings TF Team

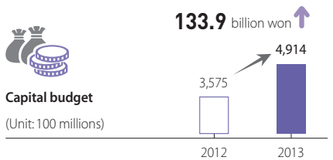
【Director】 Chairman

【Executive Manager】 Planning and Finance Division (Planning and Budget Section)

- **Construction Method Improvement Team**: Head of Construction Division (Director of construction planning) (Director of high-speed railways) Executive Director of Facilities and Business Division (Director of facility planning)
- **Innovation, Originality and Incentive Team**: Executive Director of Planning and Finance Division (Director of management) (Director of planning and budget)
- **System Improvement**: Executive Director of Engineering Division (Dean of contract management) (Manager of electric power)
- **Cost reduction**: Head of Management Support (Director of Labor Management)

### More Savings from Previous Year



# Economic Value Creation

**KR is enhancing people's happiness through economic value creation such as the construction of user-friendly railway networks, job creation, and maximum asset utilization.**

## Construction of Efficient Railway Network

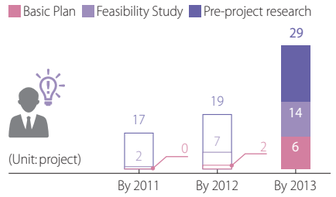
KR is realizing a more efficient national rail network by developing new railway projects and enhancing the quality of service by turning the existing railways into high-speed ones.

### Development of New Railway Business

**Achievements**

- Pre-survey, feasibility study, developing business opportunities appropriate expenses reflected in the basic planning stages railway (preliminary feasibility study selection: Five in 2012 → Seven in 2013, a 140% increase)
- Securing 2014 budget to perform follow-up work through the development of new business (90.1 billion won in nine projects)
- Seeking new business in collaboration with relevant authorities (municipalities, Ministry of Land and Transportation, lawmakers) in accordance with the government's 3.0 policies through information sharing and strengthening KR's cooperation with private sectors.

### Number of Developing New Railway Projects




### Turning Four Lines Connecting to Gyeongbu and Honam into High-Speed Railway

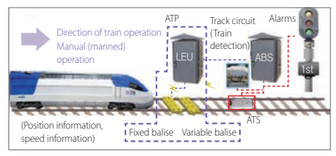
| Name | Route | Detail | Effects |
|---|---|---|---|
| Jung-Ang Lines | Cheonglyangli~Singyeongju (325.7km) | 45.8km under construction | Increasing speed by 30~100km/h and saving 179 minutes |
| Janghang Line | Cheonan~Daeya (141.6km) | 32.4km under design | Increasing speed by 50~80km/h and saving 37 minutes |
| Donghae Line | Bujeon~Samcheok (308.1km) | 186.3km under construction | Increasing speed by 30~80km/h and saving 45 minutes |
| Gyeongjeon Line | Bujeon~Gwangju Songjeong (286km) | 51.5km planned | Increasing speed by 50~80km/h and saving 26 minutes |

* Support for ensuring the success of the Pyeongchang Olympics through Acceleration of Speed of Jungang Line

### Details of High-Speed Railway Projects

Turnout Replacement (elastic turnout to turnout with movable nose crossing)

Catenary tensioning




ATP: Automatic Train Protection equipment (Automatic Train Protection)
- Controlling speed automatically according to the preceding train's location

## New Job Creation

With the aim of easing unemployment problems and realizing a job creation-oriented economy, KR is conducting a variety of activities to stimulate the construction business and create new jobs. In 2013, these activities helped create 21,577 jobs, a year on year increase of 19.9%.

| Classification | Details | Achievements (persons) |
|---|---|---|
| Job creation through promotion of railway construction projects | • Efforts to secure project budgets<br>• Seeking reinvestment by reducing budgets<br>• Effective budget use through systematic project management | 19,543 |
| Job creation by strengthening partnerships with private sector | • Promoting railway property development business<br>• Utilization and development of idle railway land and facilities<br>• Development of railway technology<br>• Entry into international railway market | 891 |
| Job creation by outsourcing jobs | • Outsourcing non-core or simple work | 600 |
| Job creation through support for marginalized people's job searches | • Offering jobs to marginalized people in areas with railway construction sites<br>• Social equity-based recruitment of young interns | 543 |

### Job Creation Targets and Results

* Increased 19.9% from 2012

## Recovery of More Investment Fees by Expanding Track Access Charges

KR constructs high-speed railways for railway operators and collects track access charges through contracts every year. KR raises funds to pay debts by collecting fees in a timely manner. KR reorganized the fee calculation system through active consultation with relevant organizations and go ahead with an increase in fee collection. We collect 375 billion won in track access charges, 27.9 billion more from a year ago by stipulating grounds for the collection of increased fees and will take advantage of the fees for reinvestments such as investments in safety facilities.

### Collection of High-Speed Track Access Charges in 2013

| Contracts signed | Additional collection after accurate calculation | Final track access charges |
|---|---|---|
| Signed track access charge contract to receive 358.1 billion won in 2013 | 16.9 billion won (Ground: Article 8, Clause 3 of Track Use Contract Regulation) | Final amount: 375 billion won (an 8% increase year on year) |

### Improving System to Additionally Collect Access Charges

Stipulated grounds for collecting additional use fees when signing track use agreements on March 28, 2018.

- To be used in reinvestment in building railway safety facilities
- To lead railways operators to pay more attention to safety

## Maximize Profits by Diversifying Income from Assets

KR exceeded 100 billion won in asset income (107.1 billion won, a year-on year increase of 10.1%) by transforming its use permit-oriented revenue structure into a business development one and through change and innovation. KR is steadily generating income through asset utilization diversification and an increase in value.

| Classification | Details |
|---|---|
| Achieved 51.2 billion won in fee revenues through asset income diversification | • 43 billion won from use of idle land and disused tracks<br>• 4.2 billion won from compensation for illegal land occupation<br>• 4 billion won from advertising in properties |
| With creativity and innovation<br>Revenue increased foundation | • Idle land marketing activities for target audience (profit: 3.4 billion won)<br>• Improvement in land pricing system for idle land (increase of 249.1 billion won in value of assets)<br>• Expanded stock material reuse and sell-off (profit: 14.1 billion won) |
| Actively utilized by the demolition site<br>Enhance asset value | • Signed MOU with municipalities with now-defunct Southern Donghae Line to utilize and develop land with disused tracks<br>- Expected return: 110 billion won for 30 years, new jobs: 90<br>• Developed now-defunct Yeongdong and Gyeongchun Railway facilities into theme park<br>- Track Access Charge: 900 million won, new jobs: 138 |
| By strengthening local cooperation<br>Maximize asset utilization | • Community development and economic contribution through partnership with local governments<br>- Increased asset management efficiency and promoted local economy by utilizing elevated railways<br>• Promoted rural economy through support for farming in idle railway land<br>- Signed agreement to help those who develop idle railway land into farming land and provided such land |

### Asset Income Breakdown

(Unit: 100 millions)

| Classification | Earning | | |
|---|---|---|---|
| Fee(512) | Rent | Reparation | Advertising income |
| | 430 | 42 | 40 |
| Usage fee(418) | Privately-funded station | Investing companies | Debt recovery |
| | 373 | 27 | 18 |
| By-products(141) | 141 | | |
| Total | 1,071 | | |

### Results of expanding income base through promotion of evelopment projects

Completed KR's first development project, 'composite transport facilities at Gwangmyeong Station' and began its business on full scale
- Income (1.9 billion won in 2013) and expected return: 82.2 billion won (Private use charges: 76.1 billion won, development gains: 6.1 billion won)
- Built nation's first transfer system between KTX and long-distance (high-speed) buses and promoted area around Gwangmyeong Station

As' aquatic Yeoksegwon development proposals specify Accept Yeoksegwon Promoted development of areas around stations through proposal on developing area around Suseo Station
- Ensured business resilience by securing grounds for use of areas free from development restrictions

Became contributor to housing welfare, new government's goal, through support for happy home project
- Signed work-sharing agreement for Oryu-Gajwa district (KR ⇔ LH Corporation)

Laid foundation for Happiness House project at small railway land
- Signed agreement with Gyeonggi Urban Development Corporation

## Expanding Profit Base through Promotion of Development Projects

KR is stepping up efforts to secure a stable and sustainable revenue base by promoting development projects with an increase in need for the creation of new profits through the development of new sites and profit sources. Moreover, KR's development of small sites supports the Happiness Housing Project, contributing to the enhancement of people's housing conditions.

# Economic Performance Summary

**KR increased income through the expansion of track access charges, new property development and business innovation.**

(Unit: 100 million won)

| Classification | Track use | Rental income | International Business | Other sales | Sales totals |
|---|---|---|---|---|---|
| 2012(a) | 6,821 | 731 | 150 | 104 | 7,806 |
| 2013(b) | 7,087 | 774 | 109 | 135 | 8,105 |
| increase (b-a) | +266 | +43 | -41 | +31 | +299 |

## Summarized Financial Statements

### Summarized Statement of Financial Position

(Unit: 100 million)

| Classification | | 2011 | 2012 | 2013 |
|---|---|---|---|---|
| Assets | Current assets | 5,000 | 2,521 | 7,365 |
| | Non-current assets | 201,547 | 194,760 | 156,169 |
| | **Total assets** | **206,546** | **197,280** | **163,534** |
| Liabilities | Current liabilities | 32,478 | 47,207 | 25,602 |
| | Non-current liabilities | 123,196 | 126,199 | 156,381 |
| | **Total Liabilities** | **155,674** | **173,406** | **181,983** |
| Capital | Basic property | 68,931 | 42,834 | - |
| | Loss | (17,904) | (18,838) | (18,438) |
| | Other capital components | (155) | (122) | (12) |
| | **Total shareholders' equity** | **50,872** | **23,874** | **(18,450)** |

* The data in 2013 were calculated in accordance with a new international standard (General standards for the data in 2011 and 2012).

### Summary of Income Statement

(Unit: 100 million)

| Classification | 2011 | 2012 | 2013 |
|---|---|---|---|
| Sales | 7,326 | 7,806 | 8,105 |
| Cost of sales | 5,140 | 4,688 | 4,877 |
| Gross Profit | 2,186 | 3,118 | 3,228 |
| Operating Profit | 2,186 | 3,118 | 3,228 |
| Non-operating income | 443 | 499 | 515 |
| Non-operating expenses | 4,542 | 4,549 | 4,701 |
| Net loss | 1,913 | 932 | 958 |

* Loss incurred due to interest cost from bonds issued for high-speed railways projects.

**Total shareholders' equity**

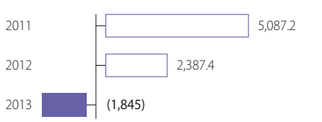
**16,353.4** billion won

**Total Liabilities**

**18,198.3** billion won

**Total capital**

**(1,845)** billion won




### Receipt of Government's Contributions

(Unit: 100 million won)

## Economic Value Distribution

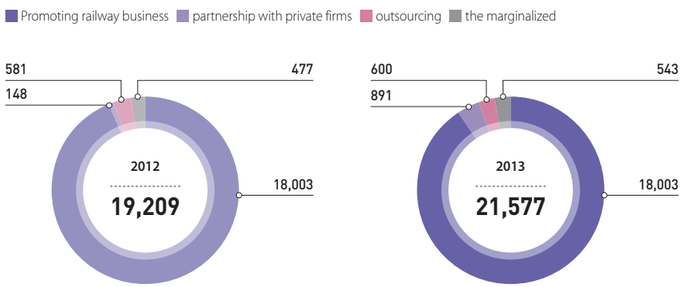
(Unit: one million won)

| Classification | | 2011 | 2012 | 2013 |
|---|---|---|---|---|
| Economic Value Creation | Sales<br>government contributions<br>bonds | 7,970,924 | 8,779,291 | 10,153,894 |
| Economic Value Distribution | **Partners** (business investment orders) | 5,433,166 | 6,204,257 | 7,097,277 |
| | **Finance costs** (including principal and interest) | 2,439,205 | 2,485,080 | 3,380,459 |
| | **Employees** (labor cost) | 92,584 | 101,325 | 99,856 |
| | **Government** (taxes and dues) | 185 | 26 | 513 |
| | **Operating expenses** (including recurring expenses) | 31,697 | 26,608 | 24,860 |

## Indirect economic effects

### Jobs

(Unit: persons)




* The figures are different from those in the 2013 sustainability report due to differences in calculation systems
- 2012: 13.7 jobs per 1 billion won (job creation effects by industries by the Bank of Korea in 2010)
- 2013: Survey of workers at construction sites of five regional headquarters (2013.12.19. ~ 2014.01.29.)

# Social Performance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**INTERVIEW**

**Kim So-hee, director at Senior Citizens Center in Donggu**

"The Dong-gu Region has the most low-income families in Daejeon. KR regularly gives a lot of help to the welfare center by understanding local characteristics accurately and therefore, helping marginalized families and serving meals. Such outreach activities are well received by local communities. Thus, senior citizens return the help by putting on a puppet show against sexual violence, donating talent and forming a senior citizen volunteer corps in a virtuous cycle. I hope that KR will steadily make endeavors to bring happiness to more marginalized people by strengthening community-based support."

# Customer Satisfaction

**KR built a CS vision system and is operating a companywide CS organization to realize customer value. The company obtained the patent of the Integrated Sorisaem Customer Management System, the first such kind among public organizations. The system reflects its results in KR's management.**

## CS Management System

### CS Vision Systems

KR set the CS Vision called 'green railways to create the future of customer satisfaction' and establish four strategic directions and 18 action plans to achieve the vision. In addition, the company provides differentiated services for various customers by identifying current and future customers and taking the lead in dealing with customer needs. This substantiates our efforts to realize the CS vision.

| Green Railway for Customer Satisfaction which Creates Better Future | | | |
|---|---|---|---|
| Better Image of Green Railways | VOC Control System Enhancement | Improve Customer Services | Strengthening CS Capabilities |
| • Advancement of Strategic CSR Promotion System<br>• Raising general public awareness of eco-friendly railways<br>• Strengthening public participatory activities<br>• Enhancing General public communication<br>• Increase external trust via compliance with international standards | • Advancement of VOC management process<br>• Building VOC collaborative systems with KORAIL<br>• Strengthening management activities to manage networks with related organizations<br>• Devising measures for VOC collection and commercialization | • Upgrade of Service quality management system<br>• Improvement in Partners' Business Processes<br>• Proactively dealing with complaints<br>• Collaboration with partners for complaints<br>• Enhancing railway information Service<br>• Evaluation from users' perspectives | • Enhancing awareness sharing activities about direction of CS<br>• Devising measures about CS implementation<br>• CS education system enhancement |

Customer Satisfaction Center

Call Center

In-house CS mentoring

Celebrities' Special Lectures

### CS Promotion Organization

KR operates an effective CS structural system to provide the highest-quality customer service. The Strategy and Management Review Deliberation Committee decides on the core CS strategies, and the Customer Service Department creates and operates the company-wide CS promotion plan. KR also employs CS Barista* in all departments under the CS promotional plan to carry out CS activities for each department while the Integrity Customer Service Center. Call centers respond to the suggestions of customers in real-time.

### Settling Efforts of CS Management

KR promotes voluntary CS management through CS baristas deployed in each department, and quarterly barista workshops are held to improve weak points and reinforce strong points. KR compares and reviews the CS activities of different departments to guarantee the transparency and objectivity of the review. The Seoul Metropolitan Headquarters monitors each department's voluntary CS activities quarterly to analyze and examine weaknesses to provide customized mentoring and carry out improvement. KR uses five internal CS instructors produced by the company to enhance the effect and receptivity of this education.

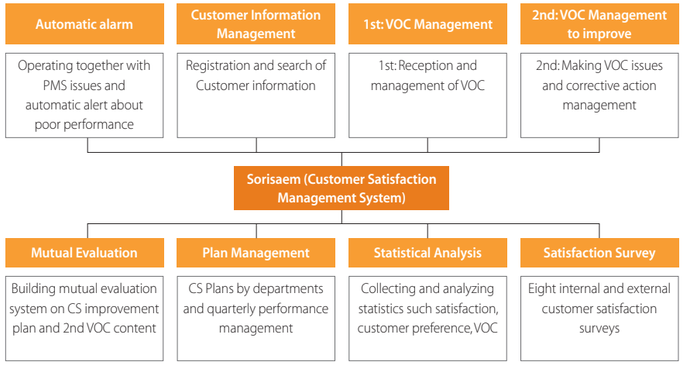
* CS baristas (44 people): CS experts who offer customized service to meet customer needs.

### CS Activities for Customers

**Operation of Characterized VOC Collection System**

KR operates various VOC collection systems such as Sorisaem, a uniform management system of customer opinions, Customer Suggestion Center, an outlet for various suggestions, Civil Affairs Office, which collects stakeholder's complaints and improvement suggestions, and offline communication channels of face-to-face communication to understand and interact with customers.

Operation of Sorisaem




**Establishment of VOC Response System**

KR provides more public transportation through timely completion of rail network construction projects and manages customer VOC in a systematic manner to reduce public inconvenience. KR resolved major issues reported through VOC by using 6 Sigma Innovative Tasks in a timely manner, removing the root cause of civil complaints.

**Customer-friendly Amenities and Service**

KR implemented various amenities and goods such as office devices in the Integrity Customer Service Center for the convenience of visiting customers and provides customer-friendly service by opening the conference room for customer use. All visiting customers were served within five minutes to reduce waiting time and increase customer satisfaction.

Interior and exterior of Customer Satisfaction Center

**Active Customer Suggestions**

KR collects the customers' ideas in real-time through Customer Suggestion Center on its webpage and reflects them in management. KR is promptly updating customers with results through emails and SMS after internal reviews of related departments. Customers are also rewarded for outstanding ideas that are applied to the policies, and KR thus gains more voluntary participation from them.

Customer Suggestion Center

# Customer Satisfaction

## Promotion Result of CS Management

**Highest Rating for Four Consecutive Years in the Customer Satisfaction Survey Conducted by the Government** I KR made tremendous efforts to exceed customer satisfaction expectations to earn their true loyalty in 2013. The company took action to deal promptly with customer complaints in a timely manner by improving the VOC process and shortening the processing time. In addition, with a view to understand customer needs, we expanded customized sectoral education from three times in 2012 to 18 times in 2013. KR achieved the highest level of customer satisfaction for three consecutive years in a survey hosted by the government by communicating with customers through various online and off-line channels and reflecting customers' opinions in system improvement and customer support. Furthermore, KR conducts our own customer satisfaction survey and mentoring program. The surveys showed an increase in customer satisfaction. KR will strive to realize CS management of the highest level among public agencies.

**Major Customer Satisfaction**

| Item | 2012 | 2013 | Compared to previous year |
|---|---|---|---|
| Visitor customer satisfaction | 95.8 | 96.5 | +0.7 |
| Satisfaction of customers who sent letters | 97.5 | 98.0 | +0.5 |
| Partner satisfaction | 93.3 | 93.5 | +0.2 |
| Kindness of employees on the phone | 86.7 | 90.5 | +3.8 |
| Satisfaction with handling of complaints | 74.6 | 74.9 | +0.3 |

## Information Disclosing Activities to Honor Customers' Right to Know

KR provides management information through a variety of channels, including its website for the purpose of improving customers' right to know and facilitating customer accessibility.

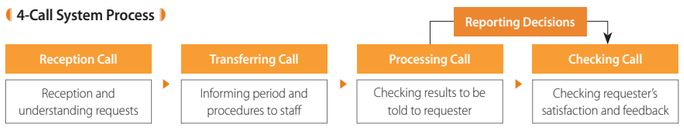
We revised its guidelines on information and revealed the full list of documents produced to actively disclose and share information while expanding the number of disclosed information items from 69 to 108. We opened national railway statistics information to the private sector and improved accessibility for users through agreements signed with information centers and railway-related colleges.

In addition, the 4-Call System provides data to customer, promoting customer-oriented work process based on a requester-friendly system that informs requesters of progress.

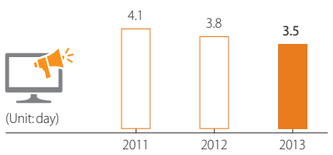
In 2013, demands for information grew 15%, increasing the ratio of information opening. But we satisfied information requesters by finishing the work within five days.

(But the implementation of the obligatory Information Opening 4-Call System increased the average required days from 2.9 days to 3.3 days, an increase of 0.4 days)

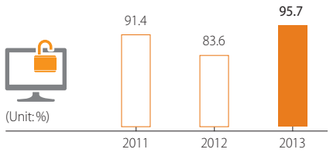
**4-Call System Process**



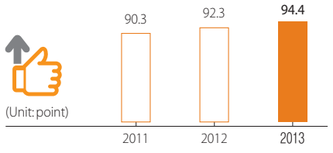

**Shortening Time of Handling VOC**



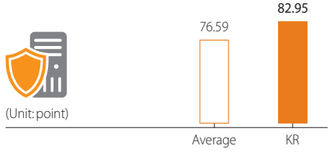

**Increase in Percentage of Disclosing Information**




**Increase in Satisfaction about Information Disclosure**




**Information Security Rating by National Information Service**




## Efforts to Protect Railway Information

KR builds and operates various cyber-attack response systems to protect personal information and railway information assets. KR is doing everything in its power to block information leaks by operating security systems on personal information, service companies, information protection and an information system and a log management system according to its own rules such as personal information work instructions, information security work instructions, and cyber crisis response manuals. KR is thoroughly prepared such as drills and security diagnoses through My PC Keeper* on Monthly Cyber Security Day. In the future, KR is will strengthen the execution of security activities in order to achieve zero cyber accidents.

* My PC Keeper: A program to check 12 items such as running vaccines and changing passwords on Wednesday in the third week of every month.

# Conflict Resolution through Reinforced Communication

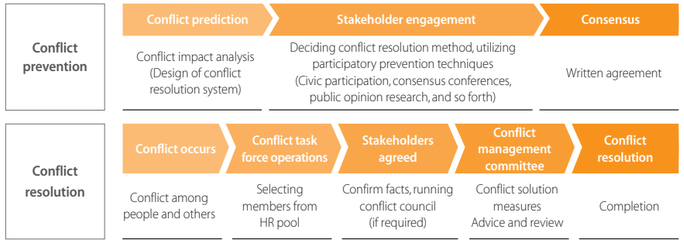
## Conflict Resolution Process

KR operates a Conflict Resolution Process to prevent social conflicts occurring in the process of rail network construction. KR changed the subject of management and scope of work and revised guidelines on conflict prevention and resolution since efforts for continuous and systematic conflict management are required. In addition, by establishing a comprehensive conflict management plan, KR is strengthening its public conflict management system that switches to pre-project conflict prevention and a proactive conflict prevention system from post-project conflict management and proceeding with early conflict resolution.

**'Conflict Impact Analysis' Projects**

1. History of higher frequency of conflicts
2. Intensity of conflicts is significant enough to cause a greater and longer impact
3. Risk of excessive social cost is likely due to conflict
4. Line passes near excellent ecosystem area or through a built-up urban area
5. Construction of railway depot

**Flow of Conflict Management Process**




**Classification by Conflict Stages**

| Stage | Explanation | Checking Cycle |
|---|---|---|
| Deadlock | No change or progress | Monthly |
| Arbitration | Bilateral deliberation spells arbitration | Quarterly |
| Settlement | Issue is settled as stakeholders find solutions | Emiannually |

## Establishment of Conflict Prevention Project Management System

KR performs an impact analysis to promote proactive prevention activities through the development of conflict-prevention tasks and selected six conflict-prevention tasks through a self-collected conflict task coordination committee. KR checks progress by improving the system to enable it to monitor conflict management in the PMS (Project Management System). In addition, if a conflict intensifies, the company goes ahead with railway projects with various and rapid responses such as experts' advice given through the Conflict Management Committee. KR conducts customized education befitting the characteristics of railways by operating public conflict management courses to foster conflict management professionals.

**Anti-Conflict Task Management System**

- Conflict prevention card registration and monthly progress update

※ Highlights: Conflict name, department, conflict overview, impact, measures, stakeholders, completion date, pictures, progress, plan, registration of report on analysis of conflict's impact

**Conflict Resolving Committee**

- Chairman: Head of Planning and Finance HQ
- Committee: Head of planning and budget and managers of HQs in charge of conflict resolving tasks
- Secretary: Head of Shared Growth Dept.

**Anti-Conflict Task Management**

| Name of Conflict | Status |
|---|---|
| Building bridge in earthwork section of station in Nam Wonju | arbitration |
| Building bridge and underground pass in Geumho-eup | arbitration |
| Conflict over environmental damage due to route through Sobaek Mountain with environmental groups | arbitration |
| Opposing transmission tower in Pyeongchang area of Wonju-Gangneung project | settlement |
| Residents' complaints against noise, vibration, fissures in buildings due to blasting in Dongmak Town | settlement |
| Request for linear change in route involving Bono Apartment | settlement |

# Employees

KR's organization efficiency is enhanced through politically correct recruitment, efficient HR management, rational compensation and systematic capability development. In addition, work-life balance and the promotion of labor-management communication help build an open organizational culture at KR.

## Fair HR Management

### Organizational Culture System and Recruitment Policy

Emphasizing the importance of communication among organizations encourages KR to build customized communication channels among different classes in order to implement worksites where bosses are trusted, employees take pride in duties and respect one another. A lot of efforts are made to promote KR's organizational culture that can promote discussions and dialogues and create a work-life balance culture. In addition, KR honors employment policies as recommended by the government and runs a fair personnel management system, and introduced a flexible HR system. This fact allows KR to efficiently carry out HR management through personnel allotment based on strategic directions by core tasks. In addition, fair and advanced recruitment criteria and procedures contributed to easing unemployment problems among youth and expanding the employment of talented people. New recruits are given 250% of the legal minimum salaries as their salaries. Gender discrimination is prevented since the company implements anti-sexual harassment education programs.

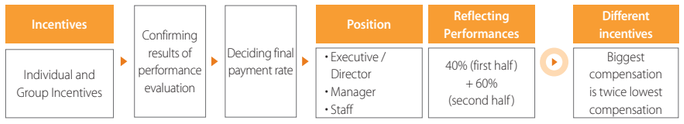
**Improvement in Recruitment Process**

- Ignored principals' recommendations and academic performance-based restrictions when hiring high school graduates
- Recruitment after considering graduation time (Mid-year recruitment → recruitment at end or start of year)
- Expanding foreign language proficiency (Including Japanese and Chinese in addition to English)
- Reflecting KR's core values in interview evaluation

### Performance-Based Personnel Management

KR clearly designates assignments as department goals and individual goals (MBO) to achieve strategic management. KR established and operate a virtuous cycle of strategy, innovation, evaluation, and compensation to evaluate and compensate employees. KR is creating a fair performance-based compensation culture by paying performance based bonuses (individual and group performance-based bonuses) according to government policies after preparing performance-based incentive system and reflecting job performance 100%.

**Compensation System**




### Efforts for Human Resources and Capability Development

KR is operating a customized education and training system to continue to develop the abilities of its personnel and secure the fairness of personnel management. In addition, KR leads employees to set career goals by performing a diagnosis of their capabilities through the establishment of a CDP-based HR development process. KR executes managers' coaching their staff members for their career development and gives education to employees to help them supplement their capabilities. Therefore, KR was selected as the "2013 best human resource development authority in the public sector. With an eye toward steady support for employees' capabilities and the reinforcement of its connection with HR management, KR provided feedback to set career goals and the feedback is used for personnel management.

**Recruitment Breakdown**

| Classification | 2012 | 2013 |
|---|---|---|
| Women | 6 | 10 |
| Disabled | - | - |
| Local talent | 9 | 9 |
| High school graduates | 2 | 4 |
| Graduates from specialized high schools | - | - |
| Science and engineering majors | 8 | 11 |
| Total | 15 | 21 |

**Educational Performance Indicators**

| Classification | 2012 | 2013 |
|---|---|---|
| Satisfaction (point) | 92.77 | 93.60 |
| Per-capita educational cost (1,000 won) | 860.9 | 919.6 |
| Per-capita educational hour (hour) | 126 | 132 |
| Capability development satisfaction (point) | 77.0 | 78.1 |
| Satisfaction about instructor (point) | 92.08 | 94.39 |

| Classification | Before education | After education |
|---|---|---|
| Academic achievement | 61.65 | 96.83 |
| Application at worksites | 78.75 | 87.37 |

## Work-Life Balance

### Advanced Labor Relations

KR improved unreasonable labor practices in order to build future-oriented and rational labor-management relations based on mutual trust and consensus.

KR secures power to execute by establishing a systematic labor-management relation advancement strategy which takes into our internal and external business environments and government policies.

### Mutual Communication

KR strengthened its capabilities for labor affairs management through customized labor education by job classes. In addition, KR's labor-management debate room promotes labor-management communication. KR promoted the use of communication channels to actively identify employee grievances. In 2013, a joint debate strengthened the rationality of collective agreements and took remedial action against 61 unfair labor-management practices.

### Development of Culture to Improve Quality Of Life

To improve the quality of life of our employees, KR operates family-friendly programs such as Family Day, and take-your-child-to-work events. In an effort to build a work-life balance culture, KR also eradicated unfair elements such as banning disadvantages to those who apply for the system and offering incentives for the purpose of establishing a flexible working system.

KR does its best to change employees' awareness of the labor culture and provide a stable work environment for employees.

**Welfare Program**

| Classification | Detail |
|---|---|
| Family friendly | • Staff's family cultural events (2 times)<br>• Experiencing rural life linked to social contributions: Making kimchi and harvesting crops<br>• Excellent Travel for Employees' Families (2 times)<br>• "Family Day" operations on every Wednesday - induction of going home on time |
| Reducing childcare burden | • KR Workplace Nurseries and childcare support (2005.9 ~)<br>• Excluding women from overnight work, providing nursing facilities<br>• Paternity leaves for male workers (5 days)<br>• Maternity leave (up to 3 years for those with children less than 6 years old) |
| Retirement planning | • Happy life design education program for retirees<br>• Retirement counselors |
| Resolving Trouble | • Running employee grievance system (Labor-management meeting, conversation with chairman and mentoring)<br>• Free legal services for employees (a total of 65 cases in 2013: 16 personal and 49 business cases) |
| Implementing systems | • Promoting flexible working system (short work hours, flexible working system, selective working hours)<br>• Selective welfare system (Self-development / family-friendly / cultural activities) |
| Employee health | • Annual insurance subscription renewal for employee health and employee group |
| Others | • Various hobby clubs (39) and gym / table tennis clubs. |

### Occupational Health and Safety Management

KR is doing everything it can do for the safety and health of employees by expanding the range of health checks such as annual health checks and screening employees 35 years old or older for cancer.

**Labor Union Membership**

| Classification | 2011 | 2012 | 2013 |
|---|---|---|---|
| Union Admission Rate (%) | 93.1 | 92.1 | 77.66 |
| Union members joined (persons) | 1,130 | 1,058 | 1,074 |
| Membership candidates (persons) | 1,214 | 1,149 | 1,383 |

* In 2013, a regulation was changed to allow executives to join the labor union, increasing the number of membership candidates and bringing down the union admission rate

**Chairman's Philosophy on Labor-Management Communication**

**[Address in inauguration ceremony]** We should pursue mutual trust and win-win cooperation where various knowledge and experiences are shared and will strive for honest communication and dialogue.

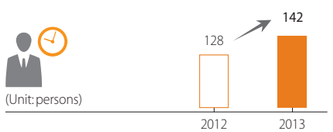
**Flexible Working System**

**Short workweek system**
15-35 hours per week (over a month)

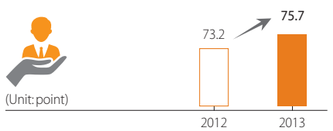
**Flexible working system**
Two types of working hours (Daily 08:00 to 17:00, 10:00 to 19:00)

**Selective agent working hours**
Business people need Independent working hours such as parents

**Results of Flexible Working System**




**Satisfaction about Employee Welfare**



# Communities

**KR is making endeavors to bring itself and its local communities together through non-profit social activities such as environmental campaigns, volunteer work, sharing programs for rural towns and the marginalized.**

## Social Contribution

### Social Contribution Implementation System

KR selected its most fulfilling tasks for social responsibility as a public institution as part of its strategy for company-wide implementation when establishing its 2020 Global Management Strategy. To do this systematically and effectively, the company established four strategies - public collaboration, community, education and talent donation and environment protection - and enhanced feedback on challenges. KR's social contribution is part of its management strategies beyond a simple charitable activity. KR is putting a lot of efforts into implementing strategic social contribution that can satisfy all of the participants and subjects.

### Organization of Contributions to Society

KR operates the KR Volunteer's Group and the Social Contribution Committee to promote continuous social contribution activities. The CEO leads the contribution activities as the head of KR Volunteer's Group, while the deputy chief director is in charge of establishing action plans and deliberating budgets as the chairman of the Committee.

### Social Contribution Activities Based on KR's Capabilities

KR conducts socially responsible business with local communities as a government-run firm. KR is developing and implementing various programs to conserve the environment, build eco-friendly railways and national welfare in cooperation with the private sector including NGOs to revitalize areas around railway construction as good areas in which to live.

#### Sharing through Public Cooperation

KR promotes social contribution activities through organic cooperation with stakeholders including NGOs. KR donates money to soldiers, the Community Chest of Korea, the Korea Tuberculosis Association and implements a blood donation drive in February and August when blood donation is most needed in partnership with the Korea Red Cross. In addition, KR spreades a culture of sharing by holding the Love-Sharing Bazaar to sell more than 800 household goods donated by employees such as clothing and books and various household goods and food produced by social companies ahead of the Chuseok holiday.

#### Sharing Activities with Local Communities

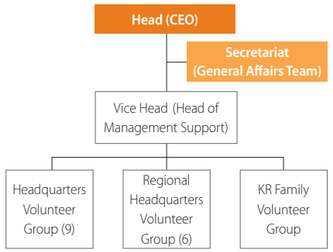
KR is making diversified efforts to carry out sharing activities with local communities. Employees' voluntary participation is helping the disabled at welfare centers near railways adapt themselves to society. KR formed 1:1 sisterhood ties with rural communities near railways. KR contributes to the invigoration of farming communities with the participation of employees' families.

**Social Contribution in 2013**

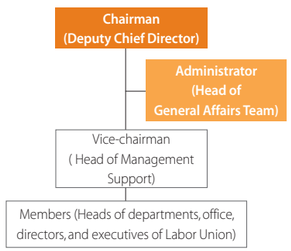
| Classification | Results | Remarks |
|---|---|---|
| Participation | 2,638 people, 1.97 times/person | Year-on-year increase of 2% |
| Service time | 15,297 hours, 5.8 hours/person | Year-on-year decrease of 2% |
| Fundraising | 235 million won, 176,000 won/ person | Year-on-year increase of 25% |
| Agricultural purchases | 6 million won | – |
| Blood Donation | 344 people | Year-on-year increase of 27% |

**Organizational System of Contribution to Society**

KR Social Service




Social Contribution Committee



① Cultural Program for KR Boy Scouts
② Scholarship Award Ceremony for KR Boy Scouts
③ Blood Donation of Love
④ Helping rural villages
⑤ Bazaar of Love

### Sharing Talent using KR Capabilities

KR donates its surplus PCs to the less-privileged persons living near railways. KR also promotes the "KR Young Adults Hope Project" as its major social contribution activities.

In addition, the KR Daddy-Longlegs Program offers studying rooms and guides and educational programs to visit railway construction sites and railway travels for marginalized teenagers. In addition, KR is conducting sharing activities based on KR's capabilities by repairing or replacing old electric facilities along with partners.

#### Eco-Friendly Sharing

KR conducted a tree-planting ceremony and environmental cleanup campaign with 'Building KR Blue Forest' that creates green spaces to improve the quality of life of local residents. In addition, KR implements social contribution and environmental management by changing lots under elevated railways and disused railway land into people-friendly facilities such as trails and athletic facilities.

**People-friendly railway facilities**

Creating an athletic part under a section of an elevated railway from Kim Yu-jeong and Nam Chuncheon Station

Creating a trail under Toigyewon Station of Gyeongchun Line

**KR's Social Contribution Activities in 2013**

| Classification | Details |
|---|---|
| Blood Donation Drive of Love | 344 people took part in the event in February and August |
| Bazaar of Love | Donation by employees (893 articles of 20 kinds) |
| Financial Support | Korea Tuberculosis Association (X-mas seals), the Community Chest of Korea, donations to Korean Armed Forces |
| Sharing Light of Love | Repairing or replacing superannuated electric equipment (10 houses of home-along senior citizens or seriously disabled people) |
| Donating Free Coal Briquettes | Delivering 37,000 free coal briquettes to the marginalized |
| Helping Less-Privileged Persons near Railways | Distributing foods (71 times by 3 teams) and donating goods (twice a year) to people in small poor village. |
| Volunteer Work for Rural Town | Regular volunteer work for the sisterhood rural town (17 times) |

| Classification | Details | |
|---|---|---|
| Volunteer Work at Welfare Centers | Regular support for 11 welfare centers near railways including sharing activities on national holidays and at the end of a year. | |
| KR Teenager Group's Hope Project | Scholarships and school uniforms for teenagers of low-income families | |
| Love of Train Camp and Cultural Experiences | Visiting railway construction sites and cultural events | KR Daddy-Longlegs Mentoring Program |
| Study Rooms and Educational Support | Children's Welfare Center in Samgol in Chungcheong Province (59 times) | KR Daddy-Longlegs Mentoring Program |
| Taking Care of KR Forests | KR Forest Love in Shintanjin and tree-planting event | |
| Clean-up Activities near Railways | Clean-up activities at trails in mountains | |

# Communities

## Indirect Economic Effects

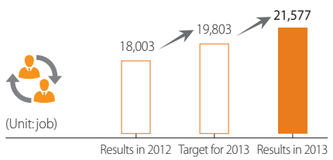
### Creating New Jobs in Private Sector

KR devised measures to create jobs in the private sector and set four directions to create public jobs to fulfill its social responsibility as a public institution, reduce unemployment, and invigorate local economies. KR conducts multi-faceted activities through systematic project management and efficient execution of project budgets, enhancing partnerships with the private sector, strategic outsourcing implementation, the employment of the marginalized and social support activities in order to promote the railway construction industry, revitalize the construction business and maximize the creation of construction jobs. We are working actively to ensure sustainable growth and create new jobs.

**Highlights of Job Creation**

| Classification | 2013 Highlights |
|---|---|
| Promoting railway construction projects | • Three high-speed, 27 general, eight wide railway projects, 10 consignment and two privately funded projects (16,123 jobs in 2012 to 19,543 jobs in 2013) |
| Strengthening partnership with private sector | • Private utilization and promotion of railway assets and idle land<br>- Rail bike, auto camping, solar power projects, parking lots (822 in 2012 to 891 in 2013) |
| Outsourcing | • Job creation by outsource simple non-core business<br>- Management of KR's buildings and training center, special security for railway traffic control center (581 in 2012 to 600 in 2013) |
| Support for employment of marginalized persons | • Offering employment opportunities to Underprivileged people such as pensioners, senior citizens (477 in 2012 to 543 in 2013) |

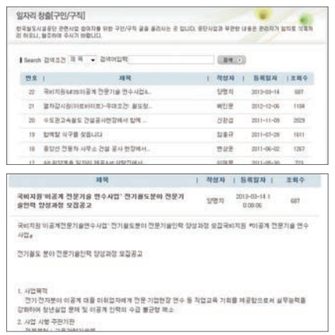
**Job Creation Target**




**Recruitment Target System**

| Classification | Target |
|---|---|
| Gender equality | 20% of new recruits |
| People from non-Seoul area | 20% of new recruits |
| Disabled people | 10% of new recruits |
| War veterans and patriots | 10% of new recruits |
| Engineering majors | Over 5% more than average recruitment of engineering majors over past three years |

**Job Creation Bulletin Board**



Screenshot

### Vitalization of Economy of Common Citizens

**Vitalizing Traditional Market and Contributing to Stability of Consumer Prices**

KR vitalizes traditional marketplaces by setting goals for Onnuri gift certificate purchases and monitoring their monthly purchases. In 2013, the figure reached 91,039,000 won, 30% more than targeted. Moreover, KR is stepping up its efforts for win-win growth with local governments such as offering a lot under one section of the Gyeongchun Line as a space for a traditional market in Maseok, Nam Yangju which was nearly closed due to an ecological stream restoration project.

Furthermore, KR made contributions to stimulating local economies and creating new jobs by offering idle railway lots as vegetable gardens for those who return to rural areas from cities.

**Utilization of Idle Railway Land**

**Support for those who Returned to Farmers**

KR's agreement with the Tobacco Farming Cooperative allowed farmers to use land of 6,800m² in Noeun-ri, Hongbuk-myeon, Hongseong-gun

**Revival of Maseok Woori Traditional Market**

Created 110 shops in land (4,197m²) under an elevated railway

**Traditional Market (Onnuri) Gift Certificate Purchases**

| Classification | Details |
|---|---|
| Target | 70,030,000 won |
| Grounds for setting goals | 0.4% of recurring expenses |
| Performances | 91,039,000 won |
| Plan for 2014 | 69,348,000 won |



# Social Performance Summary

**Employment**

| Classification | Unit | 2011 | 2012 | 2013 |
|---|---|---|---|---|
| Quota | person | 1,352 | 1,363 | 1,363 |
| Current No. | person | 1,396 | 1,347 | 1,333 |
| Non-regular workers | persons | 15 | 20 | 48 |
| Retirees | person | 5 | 2 | 11 |
| Early retirees | person | 39 | 23 | 29 |
| Average service years | year | 17.2 | 17.7 | 18.9 |

**Minority Employees**

| Classification | Unit | 2011 | 2012 | 2013 |
|---|---|---|---|---|
| No. of female employees (percentage) | Employee | 150(10.2%) | 135(10%) | 144(11%) |
| No. of female employees who are team leaders or higher | Employee | - | - | 1 |
| Employees who are disabled (percentage) | % | 3.24 | 3.36 | 3.4 |

**Recruitment of Regular Workers**

| Classification | Unit | 2011 | 2012 | 2013 |
|---|---|---|---|---|
| Women | person | - | 6 | 10 |
| Disabled | person | - | - | - |
| Local residents | person | 1 | 9 | 9 |
| High school graduates | person | - | 2 | 4 |
| Graduates of specialized high schools | person | - | - | - |
| Majors in science and Engineering | person | 0 | 8 | 11 |
| Total | person | - | 15 | 21 |

**Recruitment of Non-Regular Workers**

| Classification | Unit | 2011 | 2012 | 2013 |
|---|---|---|---|---|
| Young Interns | person | 90 | 79 | 99 |
| Contract-based professionals | person | 3 | 5 | 8 |
| Contract-based workers with high school diplomas | person | - | - | - |
| Part-timers | person | - | - | - |

**Support for SMEs**

| Classification | Unit | 2011 | 2012 | 2013 |
|---|---|---|---|---|
| Percentage of SME product purchases | % | 28 | 24.71 | 26.77 |
| Applications for joint R&D projects and participating companies | application / company | 2/6 | 6/7 | 10/13 |

**Breakdown of Employees by Ages**

| Classification | Unit | 2011 | 2012 | 2013 |
|---|---|---|---|---|
| 20~29 | person | 41 | 33 | 29 |
| 30~39 | person | 332 | 297 | 218 |
| 40~49 | person | 743 | 712 | 696 |
| 50~59 | person | 280 | 304 | 380 |
| 60 or older | person | - | - | 8 |

**Education Time and Investment**

| Classification | Unit | 2011 | 2012 | 2013 |
|---|---|---|---|---|
| Per-capital education hours | Hour | 119 | 126 | 132 |
| Per-capital investment | 1000 won | 1,061 | 859 | 919 |
| Percentage of secured core HR | % | 31.51 | 33.38 | 36.67 |

**Employee Welfare and Workplace Safety**

| Classification | Unit | 2011 | 2012 | 2013 |
|---|---|---|---|---|
| Employee Satisfaction | Point | 73.70 | 76.40 | 78.5 |
| Percentage of returning to work after maternity leaves | % | 92.31 | 95.24 | 95.69 |
| Accidents | Case | - | 1 | 1 |

**Customer Satisfaction**

| Classification | Unit | 2011 | 2012 | 2013 |
|---|---|---|---|---|
| Satisfaction about handling complaints | point | 72.5 | 74.6 | 74.9 |
| Partner satisfaction | point | 89.75 | 93.25 | 94.85 |
| PCSI | point | 95.43 | 93.98 | 94.1 |

**Others**

| Classification | | Unit | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|
| Ethical management | General Integrity by Civil Rights Commission | point | 8.81 | 8.22 | 8.36 |
| Local community | Community Service Time per Employee | hour | 9.8 | 11.4 | 5.8 |
| Overall society | Violations | case | - | - | - |
| Safety | Construction Accident Rate | % | 0.142 | 0.082 | 0.102 |

# Environmental Performance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72 Environmental Performance Summary


**INTERVIEW**

**Kim Kyung-han, general secretary at Baekdudaegan Environmental Group**

"In railway construction, it is quite an important issue to tackle and manage environmental damage. We were opposed to the project as an environmental group since double track railway construction in Gangneung-Wonju became a threat to the environment. But the project could not be suspended forever. Thus, we compromised with KR to an extent that the project will minimize damage. We could significantly decrease damage by forming the Ecological Monitoring Advisor Group, analyzing problems at construction sites in Daegwallyeong and changing construction sections and construction methods. During railway construction, nothing can be put before communication with local communities including environmental groups.It is imperative to set a regular process for preservation and development by collecting the opinions various stakeholders during design as our opposition is needed to minimize damage."

# Eco-friendly Railway Construction

**With the goal of creating an eco-friendly ecological environment, KR is moving ahead with the construction of eco-friendly railways that focus on environmental elements from design, to construction and disuse.**

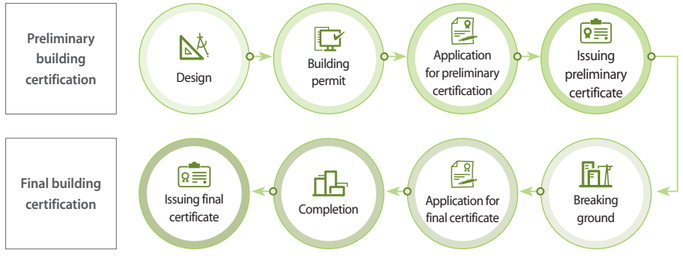
## Eco-Friendly Design and Construction

### Eco-Friendly Design

KR studies, predicts and evaluates environmental impacts by conducting environmental impact assessment during railway construction. Then KR promotes eco-friendly design by reflecting the results. KR promotes a variety of activities to implement environmentally friendly buildings by applying new and renewable facilities such as geothermal plants, and solar plants at stations. KR obtained the preliminary green building certification of Gwangju Songjeong, Jungeup, and Gongju Stations by pursuing a 'green building certification' by the Building Code to be recognized officially as eco-friendly external design activities. Amid an increase in needs for noise and vibration solutions for areas around railways and measures to decrease them, we developed a railway noise prediction program based on train types and track conditions by going ahead with R&D. The development enabled the company to improve the living conditions of residents and users.

Anti-Noise Wall

**Eco-Friendly Building Certification Process**



협 약 서

2013년 11월 22일

한국철도시설공단 이사장 김 광 제 부산광역시 시장 허 남 식

Agreement on a disused site of Donghae Nambu Line

### Efforts to Protect Ecosystem

In 2012, KR produced a mid- to long-term roadmap on ecological restoration projects as the utilization of disused tracks increased by the construction, upgrade and transfers of railways and eco-friendly restoration methods gained ground. Besides, KR is engaging in an ecological restoration project that transformed disused railway land into ecosystems and assisting local communities by going ahead with the return of ecological preservation cooperation funds. KR prepared environmental conservation measures through the operation of the Green Rail Advisory and ecological monitoring with various NGOs. By signing an agreement on demolition sites of the southern part of Donghae (East sea) Line and completing an ecological restoration project for the Ilsan Line's Wondang Station, KR ensured connectivity as a forest buffer zone linking forests and the metropolitan area. KR also received the Grand Prize at the Natural Environment Awards of the Ministry of Environment by pushing for an ecological restoration project at a disused Gyeongchun Line railway bridge.

Grand Prize at Environmental Awards

**The construction, upgrade and relocation of railways resulted in widespread idle land**

- Neglect of national assets
- Bulk waste generated during demolition
- Communities shun them

Various utilization methods are needed

- Developing ideas (TF team, knowledge activities)
- Deliberation with relevant organizations (Ministry of Environment and local governments)
- Marketing to promote participation of locals

| Ecological restoration projects that reconnect nature disconnected by railways | Cultural Recreational Facilities to Improve the quality of life | Expanding solar power generation facilities to lay foundation for creation of future energy |
|---|---|---|
| • By 2012, three projects including ecological restoration of Saecheon Stream were completed<br>• Ecological restoration of Ilsan Line's Wondang Station was completed by 2013 (400 million won)<br>- Secured connectivity as a buffer area that connects the metropolitan city and forests | • Construction of railway theme park (Yeongdong Line)<br>• Building bicycle roads, rail bike facilities (Gyeongchun and Joongang Lines)<br>• Traditional Maseok Woori Market in Nam Yangjoo (Gyeongchun Line)<br>• Turning disused railway facilities into tourism attractions (Changwon Wine Tunnel, specialty cellar) | • Introducing solar power generation facilities at demolition sites of Honam and Jeolla Lines (130,552m², 8MW)<br>• Going ahead with construction of demolition sites of Gyeongjeon, Joongang and Gyeongwon Lines (177,343m²) |

**Achievements**
- Secured biodiversity and provided green space residents through creation of buffer zones in ecosystems
- Transformed demolition sites into greenways and contribute to the local economy through job creation
- Returned assets to society and realization of virtuous cycle of resources by recycling resources from disused railways

### Recycling of Used Resources

KR strives to minimize the waste generated in the improvement and construction of rail network facilities through various efforts such as analyzing the recycling material and current status of businesses, improving the recycling standards of construction waste and utilization rate, and preventing environmental pollution. Moreover, KR builds a strategic resources recycling process, monitors the status of recycling such as selling off by-products from demolition with a view to maximizing the recycling of railway materials. Furthermore, we strive to recycle woods and trees from construction sites as resources as much as possible.

Therefore, trees are replanted and trees in poor condition are processed into wood chips, compost and firewood in an effort to minimize damage to the environment at construction sites.

**Strategic Resources Circulation Process**

| Building collaboration system | Improving procedures | Material recycling measures |
|---|---|---|
| Integration of management procedures of material using departments and material management departments and their sharing of information | Decreasing number of days for handling by-products | • Expanding material use<br>• Promotion of sale of track materials<br>• Pushing for reuse of waste sleepers |

### Utilization of Renewable Energy

KR has installed eco-friendly facilities to save energy at stations and conducted research on the expanded application of renewable energy in the field of rail networks such as solar, wind, and geothermal energy. Under consideration of construction are 67 solar energy structures in platforms, railway vehicles bases, 33 geothermal energy structures, eight wind energy structures in diverse areas. Once these renewable energy applications are completed, greenhouse gas will be reduced by 1,540t$CO_2$ on an annual basis. The generation of 17.1MWp electricity is expected from these new solar energy structures.

**Ecological Restoration of Disused Railway Bridge**

Before

After

Near Jojong Stream of Gyeongchun Line

Rail bike

**Utilization of Materials**

| Classification | Details | Savings |
|---|---|---|
| Reuse | 238 kinds of electric and track products | 7.1 billion won |
| Selling off by-products | 20,000 tons of electric and track products | 14.1 billion won |
| Selling off waste sleepers | 370,000 sleepers | 900 million won |

Solar Energy

# Response to Climate Change and Environmental Protection

**According to its mid- to long-term roadmap for addressing climate change, KR is carrying out a variety of activities such as the expansion of low-carbon facilities and the reduction of GHG emissions and low-carbon equipment-based profit generation.**

## Coping with Climate Change

### System to Combat Climate Change

In line with international trends, KR established the "Mid- to Long-Term Promotion Plans to Respond to Climate Change (December 2012)" in order to grow into a government-run company that takes the lead in low-carbon green growth. By 2020, KR will take the initiative in green growth through a reduction in GHG emissions in the railway construction sector by developing detailed plans or drafts from contracts to construction in compliance with the Plan to Reduce GHG Emissions from Railway Construction.

**Mid- to Long-Term Promotion Plans to Respond to Climate Change**

Extensive Promotion Period | Mid-to Long- Term

2012 | 2013 | 2014 | 2015 | 2016~2020

| | | |
|---|---|---|
| Establishment of Low-carbon Rail Network Facilities | High-speed Railways (2 Projects including Honam High-speed Railway) – 289km | Honam High-speed Railway – 49km |
| | Conventional Railways (12 Projects including Deokso~Wonju Double track Lines in Joonang Line) – 103km | (18 Projects including the Rail Network Construction Project of Wonju~Gangneung Section) – 542km |
| | Metropolitan Railways (5 Projects including Yongsan~Munsan Double-track Lines) – 108km | (8 Projects including Bansan~Ulsan Double-track Lines) – 285km |
| | Application of Renewable Energy (Solar Energy Equipment, Wind Energy Equipment, Etc.) | |
| | Research on Carbon Footprint Calculation; Revision of Carbon Reduction Guidelines; Voluntary Agreement on Greenhouse Gas Reduction | Participation in Carbon Market |
| | Development of GHG Emission Management System for Construction of Low-Carbon Railways | |
| Promotion of Green Rail Network Infrastructure | Establishment of Roadmap; Founding and Continuous Promotion of Ecosystem Restoration Project Candidates (Minimum 2 Cases annually) | |
| | Purchase of Green Goods (Minimum 90% of Goal) | |
| | Greenhouse Gas Energy Reduction in the Public Sector (20% of Current Emissions) | |
| Creation of Profits Using Low carbon Equipment | Solar Energy Generation Plants (20 New Plants); Expanded Application of Relevant Projects Applicants (Minimum 3 Cases Annually) | |
| | Green ODA Projects (3 Projects) | Development of New Projects (Minimum 1 Case Annually) |
| Development of Green Railway Technology | R&D Development (Eco-friendly Electricity Planning) Addition of Research Function to the Environmental Agency (Establishment of Feedback System); R&D Development (Founding of Minimum 2 Cases Annually) | |
| | Eco-friendly Facilities Survey; Development of Construction Methods; Modification of Guidelines and Specifications; Trial Application | Expanded Field Application |
| | Installation of High-speed Battery Charger for Electric Cars (Sooseo Station in High-speed Railway and Songjeong Station in Gwanju) | Monitoring and Increased Application |

**Finalized Reduction Targets by Sector (%)**

| | | | |
|---|---|---|---|
| Industry | 18.2 | Agriculture and fishery | 5.2 |
| Transition | 26.7 | Waste | 12.3 |
| Transportation | 34.3 | Public and others | 25 |
| Building | 26.9 | Nationwide | 30 |

The Kyoto Convention forces National GHG Emissions reduce by 30% by 2020 compared to the BAU.
* Among industries, the construction industry has to cut by 7.1% compared to the BAU (3.22 million ton$CO_2$e)

**Plan to Reduce GHG Emissions from Railway Construction Sites**

| Classification | BAU | Reduction target | |
|---|---|---|---|
| | | Percentage (%) | Reduction (t$CO_2$e) |
| 2013 | 2,649 | 13.2 | 350 |
| 2014 | 3,422 | 7.1 | 243 |
| 2015 | 2,890 | 7.1 | 205 |
| 2016~2020 | 8,737 | 7.1 | 620 |
| Total | 17,698 | - | 1,418 |

**Formulating Detailed Sectoral Plans**

| | |
|---|---|
| Contract | Evaluating reduction efforts when selecting successful bidders |
| Design | Evaluating reduction based on proper design |
| Construction | Evaluating reduction when design is changed |

Put calculation of GHG emission reduction to practical use (2013)

Will revise design evaluation indices (2014)

### Anti-Climate Change Activities

**Energy-Saving and Greenhouse Gas Reduction I** KR built a greenhouse gas management system at a railway construction site, and grasped the status and problems in order to cope with climate change due to global warming. As a result, a methodology for calculating greenhouse gas emissions has been established. But the company operates a TF team consisting of inside and outside experts to systematically reduce greenhouse gas emissions (GHG), since the company does not have an internal work process. In addition, research on simple carbon emissions calculation method spelled the development of additional basic units by railway types and facilities. A site GHG management procedure led to the operation of a GHG reduction model site. KR also proactively responded to reduction targets in the construction sector by preparing a GHG management manual for construction sites including the use of equipment and materials for the first time in the public construction sector. We comply with indoor temperature regulations and prohibit the use of unauthorized heaters and strive to save energy and reduce greenhouse gas emissions through energy stewardship and capacity-enforcement education.

**Strategic Process for Resources Circulation**

| Reduction in 2013 | Target for 2014 | Target for 2015 |
|---|---|---|
| 24.8% (1,440 ton$CO_2$e) | 19% (1,101 ton$CO_2$e) | 20% (1,159 ton$CO_2$e) |

### Efforts to Prevent Environmental Contamination

**Pollution Prevention Facilities I** With an eye toward building environmentally friendly railways to prevent damage due to rail construction, KR conducted surveys of life and natural environments around project sites and prepared environment conservation measures by accepting advice from NGOs. This allows KR to develop eco-friendly railway programs such as the installation of nonpoint source pollution abatement facilities, pollution abatement facilities, restoration of disused railwaybridges and ecological passages.
In addition, we minimized environmental damage to some of the Baekdudaegan (mountain range) area during Gangneung-Wonju railway construction by operating the Baekdudaegan Environmental Advisory Group. Meanwhile, the Environment Monitoring Committee on Honam High-Speed Railway minimized environmental damage to Gyeryong Mountain and prevented environmental conflicts.

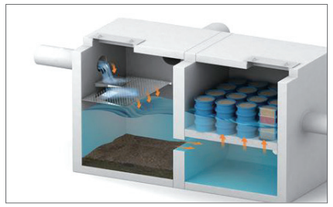
**Status of Installed Pollution Prevention Equipment**

| Classification | Details |
|---|---|
| Installation of pollution reduction facilities | Water pollution control facilities including water treatment facilities(252), air pollution control facilities such as Ventilation (275), waste storage facilities(147), and temporary noise barriers (116) |
| Restoring bridges of disused railways and installing ecological passages | • Ecological restoration of bridge of Gyeongchun Line(Grand Prize at Environment Awards of Ministry of Environment,Nov. 22, 2013)<br>• Creating Green Forest near Baekdu Station of Gyeongin Line<br>• Viaduct type ecological passagesand channel concrete boxes that can double as passages (17) and fences (135 fences, 1,391m) |
| Addressing noise and vibration problems | Installing railway noise barriers for residents near railways(3,985m) |

**Segmentation of GHG Emissions in Basic Unit**

| Classification | Unit | Earthwork(s) | Bridge | Tunnel |
|---|---|---|---|---|
| High-Speed Railway | 1000 tons/km | 5 | 26 | 15 |
| Conventional and Metropolitan Railway | | 5 | 23 | 10 |
| Trackbed of Stations | ton / 1 million won | 1.4 | 2.2 | 2.2 |

**Pollution Prevention Facility**



Nonpoint Source Pollution Abatement Facility

Installing Anti-Pollution Net

Agreement with Baekdudaegan Environmental Advisory Group

# Environmental Performance Summary

KR is systematically managing the total amount of input materials such as energy consumption and fuel consumption and the total amount of emissions such as greenhouse gas and waste emissions.

## Input

### Railway Construction Site (partner)

#### Energy Use

(Unit: TJ)

| Classification | 2011 | 2012 | 2013 |
|---|---|---|---|
| Building | 430.51 | 584.83 | 478.61 |
| Vehicle | 879.31 | 184.92 | 190.70 |
| Construction Machinery | 3,263.93 | 3,233.69 | - |

* In 2013, only energy use by buildings and vehicles was surveyed.

#### Material Use

(Unit: ton)

| Classification | 2011 | 2012 | 2013 |
|---|---|---|---|
| Steel bars | 485,283 | 710,336 | 880,432 |
| rails (new material) | 29,595 | 32,659 | 33,431 |
| Rail (reuse) | 559 | 1,360 | 1,329 |
| PC sleepers (new material) | 108,934 | 130,824 | 176,635 |
| PC sleepers (reuse) | 3,495 | 17,344 | 23,046 |
| Neck sleepers (new material) | 342 | 621 | 4,404(piece) |
| Neck sleepers (reuse) | 866 | 377 | 4,283(piece) |
| Aggregate (General) | 2,606,046 | 5,149,954 | 3,452,853 |
| Aggregate (circulation) | 72,381 | 309,033 | 331,811 |
| Mold (Wood) | 2,603,792 | 3,398,301 | 3,031,012 |
| Mold (Alternative) | 1,319,416 | 3,015,981 | 1,951,122 |

#### Water Use

(Unit: ton)

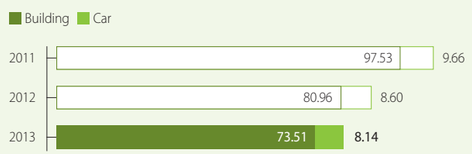
| Classification | 2011 | 2012 | 2013 |
|---|---|---|---|
| Total | 2,782,504 | 2,673,165 | 2,507,456 |
| Recycled water | 158,117 | 37,736 | 28,135 |

* Major water sources in 2013: Dongmak, Osan, Gohyeon, Hwajeon, Hanbat Streams

### KR (National and regional HQs)

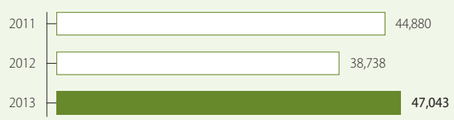
#### Energy Use

(Unit: TJ)




#### Running Water Use – Water Supply

(Unit: ton)

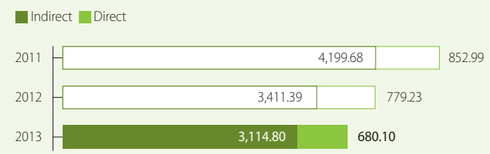



## Output

### KR (National and regional HQs)

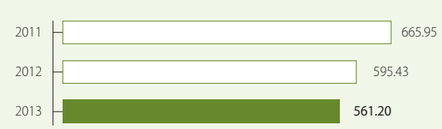
#### GHG Emissions- Building

(Unit: $tCO_2eq$)



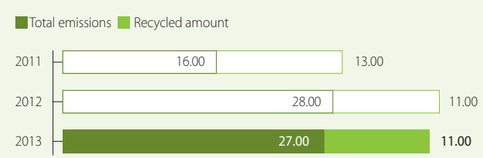

#### GHG Emissions - Vehicles

(Unit: $tCO_2eq$)




#### Emissions of Designated Waste

(Unit: ton)




#### Major Environmental Indicators

| Performance Indicator | Unit | 2011 | 2012 | 2013 |
|---|---|---|---|---|
| Environmental management index | point | 113.1 | 158.1 | 212.6 |
| Greenhouse gas reduction rate | % | 5.8 | 16.6 | 24.8 |
| Environmental legislation violations | point | 0 | 0 | 4 |
| Recycling rate of construction waste | % | 95.6 | 97.2 | 99.1 |

### Railway Construction Sites (Cooperate Company)

#### GHG Emissions

(Unit: $tCO_2eq$)

| Classification | | 2011 | 2012 | 2013 |
|---|---|---|---|---|
| Building | Indirect | 18,710.91 | 27,984.27 | 23,354.82 |
| | Direct | 4,693.27 | 3,012.67 | 1,900.90 |
| Vehicle | Direct | 61,191.69 | 12,834.84 | 13,257.74 |
| Construction Machinery | Indirect | 7,061.07 | 7,329.35 | - |
| | Direct | 220,084.09 | 217,728.38 | - |

* In 2013, we surveyed GHG emissions from buildings and vehicles only.

#### Discharged Waste

(Unit: $tCO_2eq$)

| Classification | | 2011 | 2012 | 2013 |
|---|---|---|---|---|
| Construction Waste | Waste Generation Amount | 718,088.00 | 889,831.40 | 1,402,839 |
| | Recycled Amount | 686,594.00 | 865,108.58 | 1,390,682 |
| Industrial Waste | Waste Generation Amount | 71,677.95 | 389,709.79 | 464,812,70 |
| | Recycled Amount | 39,659.63 | 229,515.13 | 276,992.80 |
| Designated waste | Waste Generation Amount | 7,235.08 | 1,129.15 | 5,646.50 |
| | Recycled Amount | 8.96 | 15.53 | 876.00 |

#### Air Pollutant Emissions

| Classification | 2011 | 2012 | 2013 |
|---|---|---|---|
| Annual dust emissions (kg) | 3,141 | 2,049 | 2,526 |
| Number of places with facilities that emit air pollutants | 17 | 24 | 22 |

#### Water Pollutants

| Classification | 2011 | 2012 | 2013 |
|---|---|---|---|
| Annually discharged wastewater(ton) | 4,868,269 | 4,697,721 | 7,176,449 |
| BOD(mg/l) | 4.4 | 4.9 | 5.8 |
| COD(mg/l) | 6.8 | 9.4 | 9.1 |
| SS(mg/l) | 8.9 | 12.0 | 8.9 |
| Number of places with facilities that emit wastewater | 107 | 103 | 92 |

# Appendix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# Assessment on Application Level of ISO 26000

Level of ISO 26000

Messrs. Employees and Stakeholders of Korea Rail Network Authority

## Evaluation Level

The Korea Standard Association (KSA) has published the "Social Responsibility Fulfillment Level Evaluation Checklist" under ISO 26000, which is the international standard for social responsibility. The ISO 26000 checklist includes the outcome evaluation for the implementation process of social responsibility and 7 core tsubjects (organizational governance, human rights, labour practices, the environment, fair operating practices, consumer issues, community involvement and development). KSA evaluated KR's social responsibility implementation level according to the ISO 26000 checklist.

## Evaluation limitation

KSA evaluated KR's overall external/internal activities, medium and long term strategies, social responsibility activities, and sustainability management strategy implementation processes. The evaluation result was made by reviewing open internal documents on policy and activities, outcome data, and calculation system.

## Evaluation Method

KSA implemented the following based on data, collected from each department, related to sustainability report publication according to an objective evaluation standard.

- Review of internal documents on activities and outcome of sustainability management of KR
- Interview with staff in charge of each social responsible management issue at KR

## Evaluation Result

KR received 903 points out of 1,000 points upon evaluation, and confirms the application of social responsibility implementation level IV of ISO26000. This indicates a high understanding of social responsibility by members, and that the organization management system, policy, and practice are well organized.

| Key Topics | Total Points | Diagnostic Score |
|---|---|---|
| Process | 360 | 322 |
| Performance | 640 | 581 |
| Total | 1,000 | 903 |

### I. Evaluation of Social Responsibility Process: 322 points out of 360

The CEO expresses his strong will to raise awareness of sustainability and reflect social responsibility as one of its key management policies at KR. The company has clear about the application of and standards on the core themes of social responsibility. The level of its due diligence process is high, too. The company is making endeavors to actively cope with the order of priority of key issues. The organization communicates with stakeholders through various methods and routes but lacks the organization of a specialized unit or activities to raise awareness. It is recommended to build a system to reflect the results of social responsibility activities and performances in job performance evaluation and encourage members.

**Results of Process Analysis** (Progress: %)

### II. Diagnosis of Seven Major Themes: Scored 581 points out of 640 points

KR's implementation of expected items in the seven core themes of the ISO 26000 is generally excellent. Specifically, its implementation is excellent in corporate governance, human rights, the environment, community engagement and development.

**Results of Core Subjects Analysis** (Progress: %)

### III. Departmental Recommendation

Upon a detailed departmental evaluation, the recommendation is as follows.

**① Organizational Governance**

KR regularly reports the goals and performances of its social responsibility activities to its Board of Directors and is enhancing job specialties through non-executive directors with expertise and experiences in various sectors. In the future, the operation of a sustainability management committee (sub-committee within Board of Directors) is recommended to make the Board of Directors make decisions not only about general management matters but about ISO 26000 issues.

**② Human Rights**

KR stipulates policy on civil rights, fair employment, and prohibition of discrimination in its human resource regulation and code of ethics, and manage human rights issues through the online and offline grievance system and counseling. In the future, it is recommended that KR establish an actual standard to investigate actual conditions related to civil rights violations (harassment, sexual harassment, occupational safety, observes Labor Standard Law, overdue wage, maternity protection) and regularly grasp impacts on human rights within itself and at partners.

**③ Labor Practice**

KR places its priority on railway safety by placing the Office of Safety and Quality under the chairman. Its working conditions and HR development system are excellent. It is recommended that KR strengthen its support for the safety and health of employees and workers at construction sites and introduce systems and programs for the management of employees' mental health.

**④ The Environment**

KR has produced tangible results in reducing GHG emissions and introduced new and renewable energy technology through the design of eco-friendly stations every year. In addition, the company is striving to minimize railway construction's impacts on the environment through environmental advisory groups. But KR lacks those in charge of environmental issues compared to its size. Thus, the company needs to recruit more people to deal with them. It is recommended to set a process to reduce and manage GHG emissions from construction sites.

**⑤ Fair Operating Practices**

KR holds a rally for all employees to honor integrity and raise their awareness of preventing corruptions through lifelong integrity education and Integrity Ombudsman activities. But since KR is a big ordering company, the company should identify and intensively manage business areas vulnerable to corruptions and promote the whistle-blower system.

**⑥ Consumer Issues**

It is evaluated that KR excels at dealing with consumer issues such as winning the highest grade among government-run companies in the 2013 quality level evaluation by the KSA. It is recommended to steadily reinforce design, safety checks and facilities for users of railways and stations (including weak people such as children, the disabled and senior citizens).

**⑦ Community Involvement and Development**

KR contributes to the development of local communities by turning railway land into nature and ecology study centers, bike paths, rail bikes and auto camping sites.

The KR Young Adult Hope Project provides scholarships, study rooms and cultural experience events to children living near railways. It is needed for KR to hire more people who will work for KR's social contribution to promote its local community engagement and development and diversify channels to raise funds for social contribution. We recommend KR to develop global social contribution programs linked to its international projects.

## Evaluation Conclusion

According to the result of the ISO 26000 Implementation Evaluation, KR received 903 out of 1,000, which qualifies KR for SR IV. KR is in the process of expanding social responsibility activities to all parts of the organization and is excellent in corporate governance, human rights, the environment and local communities. The reputation and social value of KR hinge on producing results that satisfy the demand of stakeholders. I hope that KR will develop into an institution trusted by stakeholders through its transparent and successful railway construction projects.

As a special legal body established under the Korea Industrial Standardization Act in 1962, the Korea Standards Association is a knowledge service agency that spreads industry standardization, quality management, sustainability and KS and ISO certification. In particular, the association is contributing to the sustainable development of our society as a domestic ISO 26000 agency, a GRI education institution, an AA1000 assurance provider, a Korea Sustainability Index (KSI) operating agency, a UN CDM operator, and a greenhouse gas target management verification authority.

August 1, 2014

Acting Chairman of KSA **KIM MOO-HONG**

Moo Hong Kim

# Third Party Assurance Report

**To the Readers of Korea Rail Network Authority Sustainability Report 2014:**

## Foreword

The Korea Management Association Registration and Assessments (KMAR) has been requested by Korea Rail Network Authority (KR) to verify the contents of its Sustainability Report 2014 (the Report). KR is responsible for the collection and presentation of information included in the Report. Our responsibility is to carry out assurance engagement on specific information in the assurance scope stipulated below.

## Assurance scope and standard

KR describes its efforts and achievements of the sustainability activities in the Report. KMAR performed a Type 2, moderate level of assurance using AA1000AS (2008) as an assurance standard. That is, the assurance team assessed whether inclusivity, materiality, and responsiveness were observed, and verified the followings to assess the reliability of the data and information specified in the Report where professional judgement of the practitioner of KMAR's assurance team was exercised as materiality criteria.

**Assurance of the economic section:**

Reviews whether the financial data and information have been extracted appropriately from KR's 2013 financial statements and public notification data

**Assurance of the environmental and social section:**

Reviews whether the environmental and social data and information included in the Report are presented appropriately

"Appropriately presented" means that the original data and information are reported appropriately in the Report with consistency and reliability.
The confirmation of the application level of GRI G3.1 utilized as the report criteria was included in the scope of assurance.

## Assurance process

In order to verify the contents of the Report within an agreed scope of assurance in accordance with the assurance standard, KMAR's assurance team has carried out an assurance engagement as follows:

- Assessed internal documents and materials
- Reviewed the GRI G3.1 application level which was used as a reporting framework

## Conclusion

Based on the results we have obtained from material reviews, we had several discussions with KR on the revision of the Report. We reviewed the Report's final version in order to confirm that our recommendations for improvement and our revisions have been reflected. When reviewing the results of the assurance, the assurance team could not find any inappropriate contents in the Report to the compliance with the principles stipulated below. Nothing has come to our attention that causes us to believe that the data and information are not presented appropriately.

**Inclusivity**

Inclusivity is the participation of stakeholders in developing and achieving an accountable and strategic response to sustainability.

- KR is developing and maintaining stakeholder communication channels in various forms and levels in order to make a commitment to be responsible for the stakeholders. The assurance team did not find any critical stakeholder group left out during this procedure.

**Materiality**

Materiality is determining the relevance and significance of an issue to an organization and its stakeholders. A material issue is an issue that will influence the decisions, actions, and performance of an organization or its stakeholders.

- KR is determining the materiality of issues found out through stakeholder communication channels through its own materiality evaluation process, and the assurance team did not find any critical issues left out in this process.

**Responsiveness**

Responsiveness is an organization's response to stakeholder issues that affect its sustainability performance and is realized through decisions, actions, and performance, as well as communication with stakeholders.

- The assurance team did not find any evidence that KR's counter measures to critical stakeholder issues were inappropriately recorded in the Report.

In addition, the assurance team checked that the KR complied with the GRI G3.1 in preparing the Report, and that the Report fulfills the requirements of GRI application level 'A+'.

## Our independence

With the exception of providing third party assurance services, KMAR is not involved in any other KR business operations that are aimed at making profit in order to avoid any conflicts of interest and to maintain independence.

KMAR
Korea Management Association
Registrations & Assessments Inc.

6 August 2014
CEO **Ki Ho Park**
K. H. Park

# GRI G3.1 / ISO 26000 INDEX

● Reported ◐ Partially Reported ○ Not Reported N/A Not Applicable

| GRI | Description | ISO 26000 | Core Subject and Issue | Page | Reported |
|---|---|---|---|---|---|
| Stakeholder Engagement Principle | | 6.8.3 | Engagement of community | 20~23 | ● |
| Border Protocol | | 6.6.6 | Promotion of social responsibility in value chain | 2 | ● |
| **Strategy and Analysis** | | | | | |
| 1.1 | Statement from the most senior decision maker (e.g. CEO, chairman, or other equivalent executives)of the organization about the relevance of sustainability to the organization and its strategy. | 6.2 | Organizational governance | 4~5 | ● |
| 1.2 | Description of key impacts, risks, and opportunities | | | 18~19 | ● |
| **Organizational Profile** | | | | | |
| 2.1 | Name of the organization | | | 12 | ● |
| 2.2 | Primary brands, products, and/or services | | | 12~13 | ● |
| 2.3 | Operational structure of the organization, including main divisions, operating companies, subsidiaries, and joint ventures | 6.2 | Organizational governance | 12 | ● |
| 2.4 | Location of organization's headquarters | | | 12 | ● |
| 2.5 | Number of countries where the organization operates, and names of countries with either major operations or that are specifi cally relevant to the sustainability issues covered in the report | | | 13 | ● |
| 2.6 | Nature of ownership and legal form | | | 12 | ● |
| 2.7 | Markets served (including geographic breakdown, sectors served, and types of customers / benefi ciaries) | | | 12 | ● |
| 2.8 | Scale of the reporting organization | | | 12 | ● |
| 2.9 | Significant changes during the reporting period regarding size, structure, or ownership | | | 12 | ● |
| 2.10 | Awards received in the reporting period | | | 85 | ● |
| **Report Parameters** | | | | | |
| 3.1 | Reporting period for information provided (e.g. financial year/calendar year) | | | 2 | ● |
| 3.2 | Date of most recent previous report (when available) | | | 2 | ● |
| 3.3 | Reporting cycle (annually, biannually, etc.) | | | 2 | ● |
| 3.4 | Contact point for questions regarding the report or its contents | | | 2 | ● |
| 3.5 | Process for defining report content (Determining materiality, prioritizing topics within the report, and identifying stakeholders the organization expects to use the report) | | | 24~25 | ● |
| 3.6 | Boundary of the report (e.g., countries, divisions, subsidiaries, leased facilities, joint ventures, suppliers) | | | 2 | ● |
| 3.7 | State any specific limitations on the scope or boundary of the report | | | 2 | ● |
| 3.8 | Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities that can significantly affect comparability from period to period and/or between organizations | | | 2 | ● |
| 3.9 | Data measurement techniques and the bases of calculations | | | 2 | ● |
| 3.10 | Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for such re-statement | | | 2 | ● |
| 3.11 | Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied in the report | | | 2,61 | ● |
| 3.12 | Table identifying the location of the Standard Disclosures in the report | | | 80~84 | ● |
| 3.13 | Policy and current practice with regard to seeking external assurance for the report. Scope and standards of external assurance. Relationship between the organization and assurance service provider. | 7.6.2 | Assurance | 78~79 | ● |
| **Governance, Commitments, and Engagement** | | | | | |
| 4.1 | Governance structure of the organization | 6.2 | Organizational governance | 16~17 | ● |
| 4.2 | Indicate whether the Chair of the highest governance body is also an executive officer | | | 16 | ● |
| 4.3 | For organizations that have a unitary board structure, state the number and gender of members of the highest governance body that are independent and/or non-executive members | | | 16 | ● |
| 4.4 | Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body | | | 16~17 | ● |
| 4.5 | Linkage between compensation for members of the highest governance body, senior managers, and executives, and the organization's performance | | | 17 | ● |
| 4.6 | Processes in place for the highest governance body to ensure conflicts of interest are avoided | | | 16~17 | ● |
| 4.7 | Process for determining the composition, qualifications, and expertise of the members of the highest governance body and its committees | | | 16 | ● |
| 4.8 | Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social performance and the status of their implementation | | | 14~15 | ● |
| 4.9 | Procedures of the highest governance body for overseeing the organization's identification and management of economic, environmental, and social performance | | | 16~17 | ● |

● Reported ◐ Partially Reported ○ Not Reported N/A Not Applicable

| GRI | Description | ISO 26000 | Core Subject and Issue | Page | Reported |
|---|---|---|---|---|---|
| 4.10 | Processes for evaluating the highest governance body's own performance (particularly with respect to economic, environmental, and social performance) | 6.2 | Organizational governance | 16~17 | ● |
| 4.11 | Explanation of whether and how the precautionary approach or principle is addressed by the organization | | | 13~14 | ● |
| 4.12 | Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses | | | 85 | ● |
| 4.13 | Memberships in associations such as industry associations and/or national/ international advocacy organizations | | | 85 | ● |
| 4.14 | List of stakeholder groups engaged by the organization | | | 20~23 | ● |
| 4.15 | Basis for identification and selection of stakeholders with whom to engage | | | 20~23 | ● |
| 4.16 | Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group | | | 20~23 | ● |
| 4.17 | Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting | | | 20~23 | ● |
| **Economic Performance Indicators (Disclosure on Management Approach)** | | | | 48,50 | ● |
| EC1 | Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments | 6.8 / 6.8.3 / 6.8.7 / 6.8.9 | Community involvement and development / Wealth and income creation / Social investment | 50~51,53 | ● |
| EC2 | Financial implications and other risks and opportunities for the organization's activities due to climate change | 6.5.5 | Climate change mitigation | 70~71 | ● |
| EC3 | Coverage of the organization's defined benefit plan obligations. | 6.4.4 / 6.8 | | 61 | ● |
| EC4 | Significant financial assistance received from government. | | | 47 | ● |
| EC5 | Range of ratios of standard entry level wage by gender compared to local minimum wage at signifi cant locations of operation | 6.4.4 / 6.8 | Condition of work and social protector / Community involvement and development | 60 | ● |
| EC6 | Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation | 6.6.6 / 6.8 / 6.8.5 / 6.8.7 | Promoting social responsibility in the value chain / Community involvement and development / Employment creation and skills development / Wealth and income creation | 43~45 | ● |
| EC7 | Procedures for local hiring and proportion of senior management hired from the local community at significant locations of operation | 6.8 / 6.8.5 / 6.8.7 | Community involvement and development / Employment creation and skills development / Wealth and income creation | 64~65 | ● |
| EC8 | Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind, or pro bono engagement | 6.3.9 / 6.8 / 6.8.3 / 6.8.4 / 6.8.5 / 6.8.6 / 6.8.7 / 6.8.9 | Economic, social and cultural rights / Community involvement and development / Community involvement / Education and culture / Technology development and access / Wealth and income creation / Social investment | 28~33, 50~51 | ● |
| EC9 | Understanding and describing significant indirect economic impacts, including the extent of impacts | 6.3.9 / 6.6.6 / 6.6.7 / 6.7.8 / 6.8 / 6.8.5 / 6.8.6 / 6.8.7 / 6.8.9 | Economic, social and cultural rights / Promoting social responsibility in the value chain / Respect for property rights / Access to essential services/ Community involvement and development / Employment creation and skills development / Technology development and access / Wealth and income creation / Social investment | 64 | ● |
| **Economic Performance Indicators (Disclosure on Management Approach)** | | | | 68 | ● |
| EN1 | Materials used by weight or volume | 6.5 / 6.5.4 | Environment / Sustainable resource use | 72 | ● |
| EN2 | Percentage of materials used that are recycled input materials | | | 69,72 | ● |
| EN3 | Direct energy consumption by primary energy source | | | 72 | ● |
| EN4 | Indirect energy consumption by primary source | | | 72 | ● |
| EN5 | Energy saved due to conservation and efficiency improvements. | | | 71,72 | ● |
| EN6 | Initiatives to provide energy-efficient or renewable energy-based products and services, and reductions in energy requirements as a result of these initiatives | | | 69 | ● |
| EN7 | Initiatives to reduce indirect energy consumption and reductions achieved | | | 69,71 | ● |
| EN8 | Total water withdrawal by source. | | | 72 | ● |
| EN9 | Water sources significantly affected by withdrawal of water | | | 72 | ● |
| EN10 | Percentage and total volume of water recycled and reused. | | | 72 | ● |
| EN11 | Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas | 6.5 / 6.5.6 | Environment / Protection of the environment, biodiversity, and restoration of natural habitats | 68~69 | ● |

# GRI G3.1 / ISO 26000 INDEX

● Reported ◐ Partially Reported ○ Not Reported N/A Not Applicable

| GRI | Description | ISO 26000 | Core Subject and Issue | Page | Reported |
|---|---|---|---|---|---|
| EN12 | Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas | 6.5 / 6.5.6 | Environment / Protection of the environment, biodiversity, and restoration of natural habitats | 68~69 | ● |
| EN13 | Habitats protected or restored | | | 68~69 | ● |
| EN14 | Strategies, current actions, and future plans for managing impacts on biodiversity | | | 68~69, 71 | ● |
| EN15 | Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk | | | 68~69, 71 | ◐ |
| EN16 | Total direct and indirect greenhouse gas emissions by weight | 6.5 / 6.5.5 | Environment / Climate change mitigation | 73 | ● |
| EN17 | Other relevant indirect greenhouse gas emissions by weight | | | 73 | ● |
| EN18 | Initiatives to reduce greenhouse gas emissions and reductions achieved | | | 70~71 | ● |
| EN19 | Emissions of ozone-depleting substances by weight | 6.5 / 6.5.3 | Environment / Prevention of pollution | Minuscule Emission | ○ |
| EN20 | NOx, SOx and other significant air emissions by type and weight | | | 73 | ● |
| EN21 | Total water discharge by quality and destination. | | | 73 | ● |
| EN22 | Total weight of waste by type and disposal method | | | 73 | ● |
| EN23 | Total number and volume of significant spills | | | Not applicable | ● |
| EN24 | Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transported waste shipped internationally | | | - | N/A |
| EN25 | Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the reporting organization's discharges of water and runoff | 6.5 / 6.5.4 / 6.5.6 | Environment / Sustainable resource use / Protection of the environment, biodiversity and restoration of natural habitats | 68~69 | ● |
| EN26 | Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation | 6.5 / 6.5.4 / 6.6.6 / 6.7.5 | Environment / Sustainable resource use / Promoting socialresponsibility in the value chain / Sustainable consumption | 68~69, 71 | ● |
| EN27 | Percentage of products sold and their packaging materials that are reclaimed by category | 6.5 / 6.5.4 / 6.7.5 | Environment / Sustainable resource use / Sustainable consumption | - | N/A |
| EN28 | Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations | 6.5 | Environment | 73 | ● |
| EN29 | Significant environmental impacts of transporting products and other goods and materials used for the organization's operations | 6.5 / 6.5.4 / 6.6.6 | Environment / Sustainable resource use / Promoting social responsibility in the value chain | 70~71 | ◐ |
| EN30 | Total environmental protection expenditures and investments by type | 6.5 | Environment | - | ○ |
| **Labor Practices (Disclosure on Management Approach)** | | | | 60 | ● |
| LA1 | Total workforce by employment type, employment contract, and region. | 6.4 / 6.4.3 | Labor practice / Employment and employment relationships | 65 | ● |
| LA2 | Total number and rate of employee turnover (by age group, gender, and region) | | | 60, 65 | ● |
| LA3 | Benefits provided to full-time employees that are not provided to temporary or part-time employees (by operating location) | 6.4/ 6.4.3 / 6.4.4 | Labor practice / Employment and employment relationships / Condition of work and social protector | 61 | ● |
| LA4 | Percentage of employees covered by collective agreement. | 6.4 / 6.4.3 / 6.4.4 / 6.4.5 / 6.3.10 | Labor practice / Employment and employment relationships / Condition of work and social protector / Social dialogue / Fundamental principles and rights at work | 61 | ● |
| LA5 | Minimum notice period(s) regarding significant operational changes (including whether it is specified in collective agreements) | 6.4 / 6.4.3 / 6.4.4 / 6.4.5 | Labor practice / Employment and employment relationships / Condition of work and social protector / Social dialogue | 61 | ● |
| LA6 | Percentage of total workforce represented in formal joint management-worker health and safety committees | 6.4 / 6.4.6 | Labor practice / Health and safety at work | 37, 61 | ◐ |
| LA7 | Rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities (by region and gender) | | | 37 | ● |
| LA8 | Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases | 6.4 / 6.4.6 / 6.8 / 6.8.3 / 6.8.4 / 6.8.8 | Labor practice / Health and safety at work / Community involvement and development / Community involvement / Education and culture / Health | 61 | ● |
| LA9 | Health and safety topics covered in formal agreements with trade unions | 6.4 / 6.4.6 | Labor practice / Health and safety at work | 61 | ● |
| LA10 | Average hours of training per year per employee by employee category | 6.4 / 6.4.7 | Labor practice / Human development and training in the workplace | 60 | ● |

● Reported ◐ Partially Reported ○ Not Reported N/A Not Applicable

| GRI | Description | ISO 26000 | Core Subject and Issue | Page | Reported |
|---|---|---|---|---|---|
| LA11 | Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings | 6.4 / 6.4.7 / 6.8.5 | Labor practice / Human development and training in the workplace / Employment creation and skills development | 61 | ● |
| LA12 | Percentage of employees receiving regular performance and career development reviews | 6.4 / 6.4.7 | Labor practice / Human development and training in the workplace | 60 | ◐ |
| LA13 | Composition of governance bodies and breakdown of employees per category according to gender, age group, minority group membership, and other indicators of diversity | 6.3.7 / 6.3.10 / 6.4 / 6.4.3 | Discrimination and vulnerable groups / Fundamental principles and rights at work / Labor practice / Employment and employment relationships | 16 | ● |
| LA14 | Ratio of basic salary of men to women by employee category | 6.3.7 / 6.3.10 / 6.4 / 6.4.3 / 6.4.4 | Discrimination and vulnerable groups / Fundamental principles and rights at work / Labor practice / Employment and employment relationships / Condition of work and social dialogue | 60 | ● |
| LA15 | Return to work and retention rates after parental leave, by gender | | Prohibition of discrimination against vulnerable group / Guarantee of economic, social, and cultural rights of corporate and community members | 65 | ● |
| **Human Right (Disclosure on Management Approach)** | | | | 37, 53, 55 | ● |
| HR1 | Percentage and total number of significant investment agreements that include human rights clauses or that have undergone human rights screening | 6.3 / 6.33 / 6.3.5 / 6.6.6 | Human right / Due diligence / Avoidance of complicity / Promoting social responsibility in the value chain | Not applicable | ● |
| HR2 | Percentage of signifi cant suppliers and contractors that have undergone screening on human rights and actions taken | 6.3 / 6.3.3 / 6.3.5 / 6.4.3 / 6.6.6 | Human right / Due diligence / Avoidance of complicity / Employment and employment relationships / Promoting social responsibility in the value chain | 43 | ● |
| HR3 | Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained | 6.3 / 6.3.5 | Human right/ Avoidance of complicity | 40 | ● |
| HR4 | Total number of incidents of discrimination and actions taken | 6.3 / 6.3.6 / 6.3.7 / 6.3.10 / 6.4.3 | Human right / Resolving grievances / Discrimination and vulnerable groups / Fundamental principles and rights at work / Employment and employment relationships | 60~61 | ● |
| HR5 | Operations identified in which the right to exercise freedom of association and collective bargaining may be at significant risk, and actions taken to support these rights | 6.3 / 6.3.3 / 6.3.4 / 6.3.5 / 6.3.8 / 6.3.10 / 6.4.3 / 6.4.5 | Human right / Due diligence / Human rights risk situations/ Avoidance of complicity / Civil and political rights / Fundamental principles and rights at work / Employment and employment relationships / Social dialogue | 61 | ● |
| HR6 | Operations identifi ed as having signifi cant risk for incidents of child labor, and measures taken to contribute to the elimination of child labor | 6.3 / 6.3.3 / 6.3.4 / 6.3.5 / 6.3.7 / 6.3.10 | Human right / Due diligence / Human rights risk situations / Avoidance of complicity / Discrimination and vulnerable groups / Fundamental principles and rights at work | Not applicable | ● |
| HR7 | Operations identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of forced or compulsory labor | 6.3 / 6.3.3 / 6.3.4 / 6.3.5 / 6.3.7 / 6.3.10 | Human right / Avoidance of complicity / Employment and employment relationships / Promoting social responsibility in the value chain | Not applicable | ● |
| HR8 | Percentage of security personnel trained in the organization's policies or procedures concerning aspects of human rights that are relevant to operations | 6.3 / 6.3.5 / 6.4.3 / 6.6.6 | Human right / Resolving grievances / Discrimination and vulnerable groups / Fundamental principles and rights at work / Employment and employment relationships | 38, 40 | ● |
| HR9 | Total number of incidents of violations involving rights of indigenous people | 6.3 / 6.3.6 / 6.3.7 / 6.3.8 / 6.6.7 | Human right / Resolving grievances / Discrimination and vulnerable groups / Civil and political rights / Respect for property rights | 59 | ● |
| HR10 | Percentage and total number of operations that have been subject to human rights reviews and/or impact assessments | | Due diligence / Human rights risk situations | 39~41 | ● |
| HR11 | Number of grievances related to human rights filed, addressed, and resolved through formal grievance mechanisms | | Resolving grievances | 58~59 | ● |
| **Social Performance Indicators (Disclosure on Management Approach)** | | | | 62 | ● |
| SO1 | Nature, scope, and effectiveness of any programs and practices that assess and manage the impacts of operations on communities, including entering, operating, and exiting | 6.3.9 / 6.8 / 6.8.5 / 6.8.7 / 6.6.7 | Economic, social, and cultural rights / Participation in and development of regional society / Creation of jobs and functional developments / Creation of wealth and income | 62~63 | ● |

# GRI G3.1 / ISO 26000 INDEX

● Reported ◐ Partially Reported ○ Not Reported N/A Not Applicable

| GRI | Description | ISO 26000 | Core Subject and Issue | Page | Reported |
|---|---|---|---|---|---|
| SO2 | Percentage and total number of business units analyzed for risks related to corruption | 6.6 / 6.6.3 | Fair operation practice / Anti-corruption | 40~41, 43 | ● |
| SO3 | Percentage of employees trained in organization's anti-corruption policies/ procedures | | | 40 | ● |
| SO4 | Actions taken in response to incidents of corruption. | | | 40 | ● |
| SO5 | Public policy positions and participation in public policy development and lobbying | 6.6 / 6.6.4 / 6.8.3 | Fair operation practice / Responsible political involvement / Community involvement | 22 | ● |
| SO6 | Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country | | | Not applicable | ● |
| SO7 | Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices | 6.6 / 6.6.5 / 6.6.7 | Fair operation practice / Fair competition / Respect for property rights | 43~44 | ◐ |
| SO8 | Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations | 6.6 / 6.6.7 / 6.8.7 | Fair operation practice / Respect for property rights /Wealth and income creation | 65 | ● |
| SO9 | Operations with significant potential or actual negative impacts on local communities | 6.8 | Community involvement and development | 59 | ● |
| SO10 | Prevention and mitigation measures implemented in operations with significant potential or actual negative impacts on local communities | 6.8 | Community involvement and development | 59,64 | ● |
| **Product Responsibility (Disclosure on Management Approach)** | | | | 56 | ● |
| PR1 | Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures | 6.3.9 / 6.6.6 / 6.7 / 6.7.4 / 6.7.5 | Economic, social and cultural rights / Promoting social responsibility in the value chain / Consumer issue / Protecting consumers' health and safety /Sustainable consumption | 34~36 | ● |
| PR2 | Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle by type of outcomes | | | 35~37 | ● |
| PR3 | Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements | 6.7 / 6.7.3 / 6.7.4 / 6.7.5 / 6.7.6 / 6.7.9 | Consumer issue / Fair marketing, factual and unbiased information and fair contractual practices / Protecting consumers' health and safety / Sustainable consumption / Consumer service, support, and complaint and dispute resolution / Education and awareness | 13 | ● |
| PR4 | Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes | | | Not applicable | ● |
| PR5 | Practices related to customer satisfaction, including results of surveys measuring customer satisfaction | 6.7 / 6.7.3 / 6.7.5 / 6.7.6 / 6.7.8 / 6.7.9 | Consumer issue / Protecting consumers' health and safety / Sustainable consumption / Consumer service, support, and complaint and dispute resolution / Access to essential services / Education and awareness | 57~58 | ● |
| PR6 | Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship | 6.7 / 6.7.3 / 6.7.6 / 6.7.9 | Consumer issue / Fair marketing, factual and unbiased information and fair contractual practices / Consumer service, support, and complaint and dispute resolution / Education and awareness | 56~58 | ● |
| PR7 | Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications | | | Not applicable | ● |
| PR8 | Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data | 6.7 / 6.7.7 | Consumer issue / Consumer data protection and privacy | 58 | ● |
| PR9 | Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services | 6.7 / 6.7.6 | Consumer issue / Consumer service, support, and complaint and dispute resolution | 65 | ● |

## Ten Principles of UNGC

**UN Global Compact**

THE GLOBAL COMPACT

WE SUPPORT

KR became a member of the UN Global Compact, an international agreement on corporate social responsibility and is abiding by ten principles in the human rights, labor, environment and anti-corruption sectors.

| Classification | Principles |
|---|---|
| Human rights | 1. Businesses should support and respect the protection of internationally proclaimed human rights |
| | 2. Ensure that they are not complicit in human rights abuses. |
| Labor | 3. Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining |
| | 4. The elimination of all forms of forced and compulsory labor |
| | 5. The effective abolition of child labor; and |
| | 6. The elimination of discrimination in respect of employment and occupation. |
| Environment | 7. Businesses should support a precautionary approach to environmental challenges; |
| | 8. Undertake initiatives to promote greater environmental responsibility; and |
| | 9. Encourage the development and diffusion of environmentally friendly technologies. |
| Anti-Corruption | 10. Businesses should work against corruption in all its forms, including extortion and bribery. |



# Recognitions and Affiliation

## Recognitions in 2013

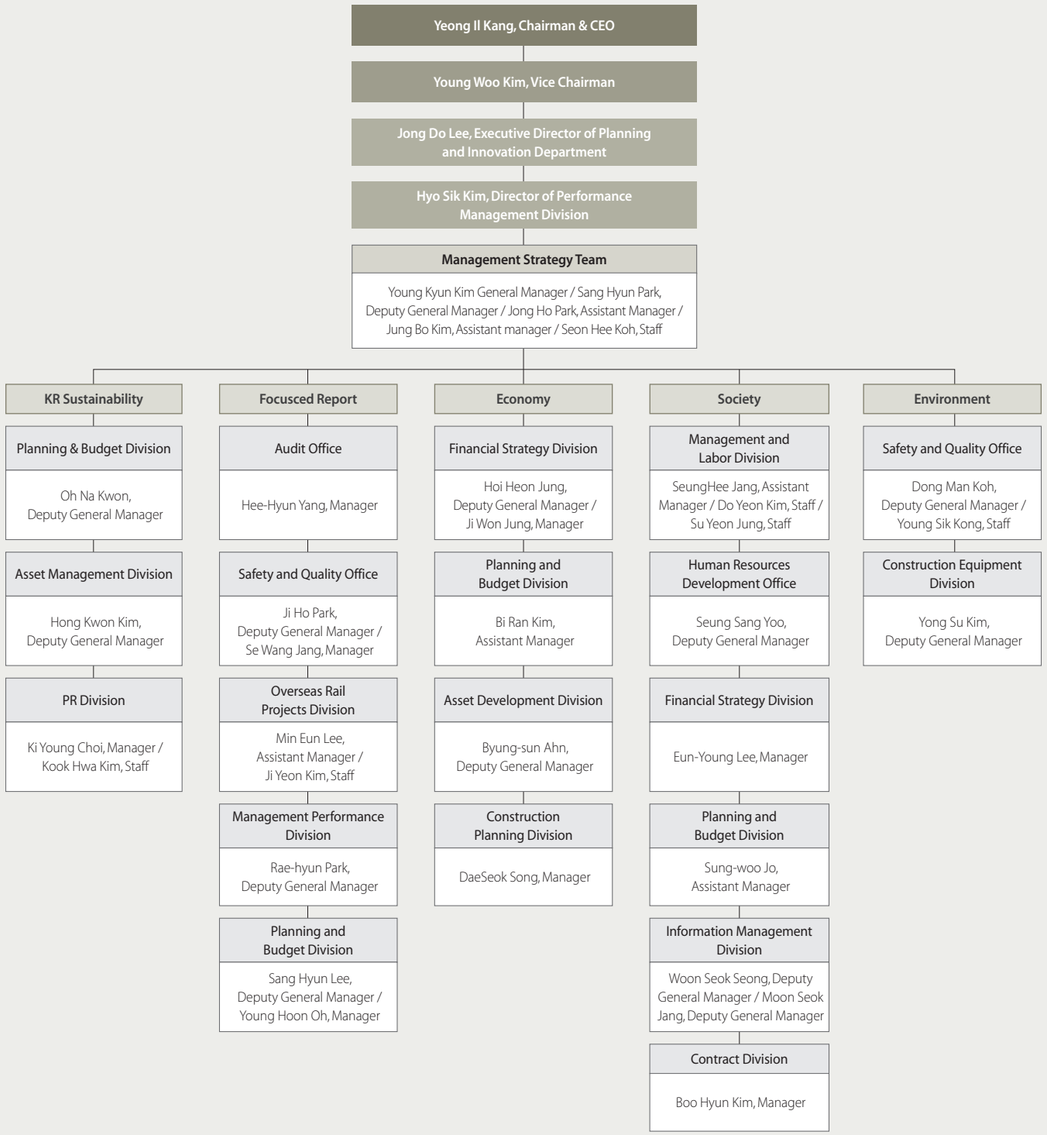
| External Recognition | Significance | Organizing Institution |
|---|---|---|
| Excellent Organization in Evaluation Shared Growth Activities | Took lead in win-win growth through support for SMEs (Apr. 2013) | 산업통상자원부 MOTIE |
| Grand Prize at Korea Inno Skill Contest | Excellent results in price cutting, process improvement, higher productivity (July. 2013) | KMAC |
| Grand Prize at Social Contribution Awards (regional social contribution sector) | Social contributions befitting characteristics of areas such as support for the marginalized near railways and volunteer work for rural towns (Sep. 2013) | 대한상공회의소 |
| No. 1 in KRCA and KSI Index | Economic, environmental and social performances for sustainable growth (Oct. 2013) | Future Value, Ask KSA KSA 한국표준협회 |
| Prize of Minister of Industry, Trade and Energy in shared growth | Contributed to competiveness of companies and economic development through cooperation between big and small companies (Oct. 2013) | 산업통상자원부 MOTIE |
| Korea's Respected Company Prize from Minister of Industry, Trade and Energy | Contributed to people's happiness and national growth through economic railway construction, realization of fair society and job creation (Oct. 2013) | 산업통상자원부 MOTIE |
| Excellence Prize at Korea Knowledge Awards (Prize of Minister of Security and Public Administration) | Excellence in knowledge and innovation and competitiveness enhancement activities (Oct. 2013) | 안전행정부 |
| BEST-HRD Certification in Public Sector | HRD model in nurturing railway experts and globally talented people (Nov. 2013) | KRIVET 한국직업능력개발원 |
| Grand Prize at Environment Awards | Excellent organization in ecological restoration project for areas near railway bridge over Jojong Stream of Gyeongchun Line (Nov. 2013) | (사)한국환경계획·조성협회 |
| Grand Prize in National Quality Contest | Promoted mutual prosperity and work improvement and carried out creation and innovation activities (Nov. 2013) | 산업통상자원부 MOTIE |
| Very Excellent Public Organization in Web Access and Compatibility | Very Excellent (100 points) in evaluation of Web access and compatibility of 407 government-run organizations (Nov. 2013) | 안전행정부 |
| Grand Prize at National Design VE Competition for two consecutive years | Cut down on cost via design VE about trackbed of double track railway between Damyang and Yeongcheon (Dec. 2013) | 국토교통부 |
| Six-Plus Grade in QMS | Raised level of GMS operation through steady QMS improvement activities (Dec. 2013) | Future Value, Ask KSA KSA 한국표준협회 |
| Excellent Organization in Management of Public Workers among Public Organizations under Ministry of Land, Infrastructure and Transport | Drew up and implemented public worker management plan and improved systems to prevent wrongdoings (Dec. 2013) | 국토교통부 |
| National Shinmungo Awards | Selected as an excellent public organization which took the lead in integration of National Shinmungo System (2013.12) | 국민권익위원회 |
| Grand Prize in Earthwork at Construction Quality Awards | Built excellent quality management system (Dec. 2013) | 국토교통부 |
| Grand Prize at National QCC Competition | Study activities through CoP activities and positive results (May. 2014) | Future Value, Ask KSA KSA 한국표준협회 |
| Excellence Prize at Daejeon City's QCC Competition | Excellently solved problems at worksites through environment, safety and quality activities based on work improvement activities (June. 2014) | 대전광역시 |

## External Affiliated Organization

| | | | | |
|---|---|---|---|---|
| International Union of Railways(UIC) | Korea Railway Association | International Association for Construction | Korea Railway Construction Association | Korea Association of Management Projects |
| Korea Industrial Technology Promotion Association | Korea Association for Railway | Traffic Institute of Korea | Korean Society of Civil Engineers | Architectural Institute of Korea |
| Korea Institute of Electrical Engineers | Korea Association for Disaster Prevention | Korea Association for Tunnel Underground | Korean Society of Environment Education | Korea Society of Archives and Records Management |
| UN Global Compact Korea | Association Korean Association for Audit | Yunkyung SM Forum | Korea Association of Record | Korea Society of Management Information |

# Framework of Sustainability Management Implementation

The sustainability management of KR is supervised by the Planning and Innovation Department, and staff from 19 departments worked together to produce the sustainability report.






# Readers' Survey

We look forward to receiving your valued comments on the 2014 Sustainability Report.

**1. To which of the following groups do you belong?**

☐ Customer ☐ Employee ☐ Government ☐ Local Resident ☐ Business Partner ☐ NGOs, Citizens' Groups or Professional Organization
☐ Others ( )

**2. How did you hear about this report?**

☐ Corporate homepage ☐ Newspaper or Media ☐ Internet ☐ Corporate employee ☐ Seminar / Lecture ☐ Others ( )

**3. For what purpose do you intend to use this report? (You may choose multiple boxes)**

☐ To gain information about the corporation
☐ To compare and analyze the business of the corporation
☐ Others ( )
☐ To understand sustainability management activities
☐ Research and educational purposes

**4. Which issues in this report interest you? (You may choose multiple boxes)**

☐ Ⅰ. KR Sustainability ☐ Ⅱ. Focused Report ☐ Ⅲ. Economic Performance ☐ Ⅳ. Social Performance ☐ Ⅴ. Environmental Performance

**5. If there is a section that needs to be supplemented, which section will it be? (You may choose multiple boxes)**

☐ Ⅰ. KR Sustainability ☐ Ⅱ. Focused Report ☐ Ⅲ. Economic Performance ☐ Ⅳ. Social Performance ☐ Ⅴ. Environmental Performance

**6. Was this report helpful in understanding the Korea Rail Network Authority's sustainability management activities?**

☐ Very helpful ☐ Somewhat helpful ☐ Average ☐ Not helpful ☐ Poor

**7. What is your evaluation of this report?**

| | Very helpful | Somewhat helpful | Average | Not helpful | Useless |
|---|---|---|---|---|---|
| Degrees of Understanding | ☐ | ☐ | ☐ | ☐ | ☐ |
| Accuracy of Information | ☐ | ☐ | ☐ | ☐ | ☐ |
| Amount of Information | ☐ | ☐ | ☐ | ☐ | ☐ |
| Design format | ☐ | ☐ | ☐ | ☐ | ☐ |

**8. Please feel free to give your opinion on Korea Rail Network Authority's sustainability management activities and/or contents/format of theoverall report.**

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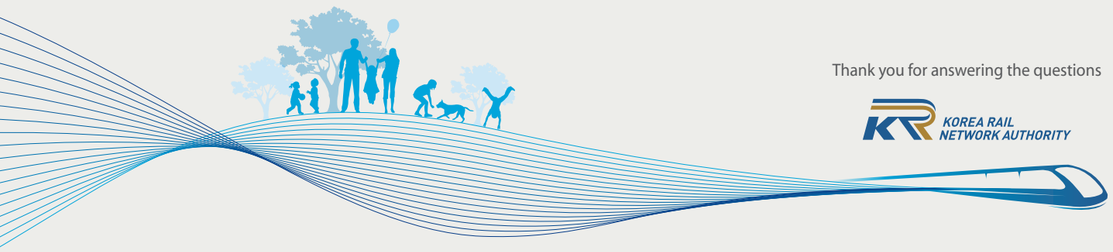
**Send to:** Division of Management Strategy, Management Outcome Division, Planning and Innovation Department, Korea Railway Network Authority, 242, Joonang-ro, Dong-gu, Daejeon Metropolitan City, 300-731 **Tel**_82-42- 607-3156 / **Fax**_82-42-607-3169



Thank you for answering the questions

KOREA RAIL NETWORK AUTHORITY

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