Kia Motors Sustainability Magazine 2013

## A Better Way to Go

Special Feature: Our approach to CSR

## **Energy Efficiency**

Fuel efficiency equation: Economic car=green car

## Healing & Caring

The answer we sought and found in 2012

## From Supplier to Partner

Our definition of partnership

## China Report

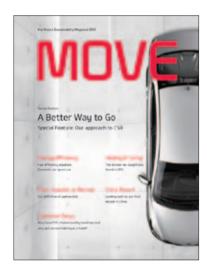
Looking back on our first decade in China

## **Customer Focus**

Why have CEO-chaired quality meetings and why get service training at a hotel?

Kia Motors Sustainability Magazine 2013

## MOVE



'MOVE,' the name of this sustainability report, stands for Kia Motors' movement toward bringing about positive changes in the world.



The report is printed in soy ink on FSC-certified paper.

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## Reader's quide

cons are used to indicate additional information. An interactive DF version of 2013 MOVE is also available. The interactive PDF ersion includes videos that could not be included in the print ersion as well as shortcuts and links to websites. The interactive DF version can be downloaded from the Kia Motors website.

This report (2013 MC

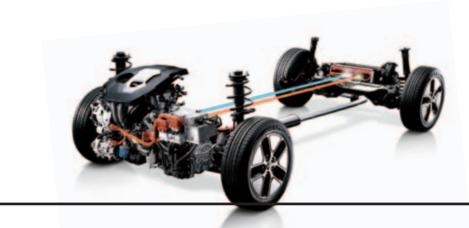




Yancheng, with an economic growth rate of 14% and a population of 850,000 as of 2012, is being touted an emerging industrial city. And at the center of Yancheng's reclaimed glory are Kia Motors and our 90 partner companies.

Review of Kia Motors' First Decade in China

20

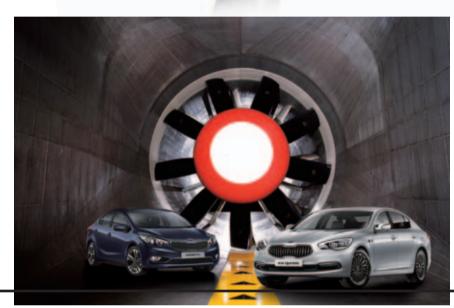




The Green Light Project is a community development endeavor through which we offer opportunities to become self-reliant to those with limited access to education, medical care, and cultural events and activities. We aim to be a steadfast presence and remain a long-term partner in the effort to resolve social challenges.

Special Feature: Our Approach to CSR

22





Winning Employees' Hearts & **34** Minds

With healing as our goal and theme in 2012, Kia Motors worked with our employees to seek solutions and put them into action.



In a business environment where innovation has become routine, the scope of business competitiveness extends across the entire business ecosystem. Some 95% of the parts that make up a car come from partner companies. In the auto industry, where technological competency is key to success, mutual growth with partners has become a prerequisite for survival and growth.

Mutual Growth: Defining Partnership



awareness.

Greater Safety

62

Future vehicles should either curb energy consumption or do away with CO<sub>2</sub> emissions altogether.

Future Vehicles: Progress & Plans



A discussion on climate change and practical vehicles leads to one conclusion: the need to improve fuel economy. Fuel economy and CO<sub>2</sub> emissions have a 99% correlation. That is, raising vehicle fuel economy and lowering CO2 emissions make up the equation of affordable and green mobility.

Technologies for Enhanced Fuel Economy

Cars are becoming safer with airbags and reinforced bodies, and smarter with cutting-edge accident prevention features. Cars now self-diagnose against hazards and automatically apply safety measures. Kia Motors uses technology to keep people safe while spreading motor safety





Safety & Environmental Assessments



In 2012, Kia vehicles have become safer and greener. We introduce our green lineup of vehicles with verified safety and environmental performance.

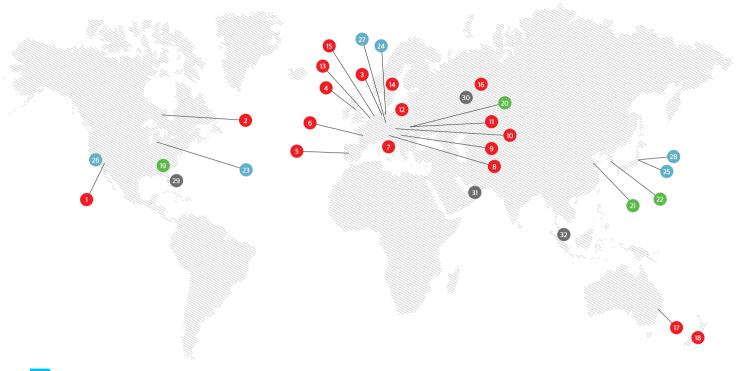
Smarter Vehicles for

## Kia around the World

Since our founding in 1944, Kia Motors has grown into a leading global automaker with annual sales of over 2.7 million vehicles in 166 countries. Through continuous R&D and investment, we have come to possess a full lineup of vehicles spanning all segments and types, including passenger cars, RVs, and commercial vehicles. With production facilities and R&D and design centers in the United States, China, Europe, and other major regional markets, we recently entered Interband's Top 100 Best Global Brands list, debuting in 87th place. Kia Motors will fulfill our corporate social responsibilities of sharing the fruits of our growth, maintaining stakeholder trust, and drawing on our research and technological competencies to realize sustainable mobility.

KIΛ





No. of vehicles produced based on annual production volume

## **Business Domain**

PASSENGER CAR Morning (Picanto), Ray, Venga, cee'd, Pride (Rio), K2, K3 (Forte/ Cerato), Forte Koup (Cerato Koup), K5 (Optima), K7 (Cadenza), K9 (Kia Quoris) RV Soul, Carens (Rondo), Carnival R (Carnival/Sedona), Sportage R (Sportage), Sorento R (Sorento), Mohave COMMERCIAL VEHICLE Bongo III (K-Series trucks), New Granbird (commercial bus)

HYBRID VEHICLE Forte LPi Hybrid, K5 (Optima) Hybrid ELECTRIC VEHICLE Ray EV CKD (Complete Knock Down) Automobile components (engines, etc.)

## **Global Network**

## SALES & SERVICE

Korea Sales 20 regional headquarters, 338 regional sales offices, 399 dealerships, 9 shipping offices Service 19 regional service centers, 239 comprehensive service providers,

562 partial service providers Overseas Sales 166 countries, 18 sales offices, 150 distributors, 4,485 dealers (service & sales)

Sales Offices Kia Motors America (1) | Kia Canada Inc. (2) | Kia Motors Deutschland 3 | Kia Motors UK 4 | Kia Motors Iberia 5 | Kia Motors France 6 | Kia Motors Italy 7 | Kia Motors Austria 8 | Kia Motors Hungary 9 | Kia Motors Czech 10 | Kia Motors Slovakia 🕦 | Kia Motors Polska 😥 | Kia Motors Belgium 🔞 | Kia Motors Sweden 似 | Kia Motors Netherlands 🚯 | Kia Motors Russia 🔞 | Kia Motors Australia 🔞 | Kia Motors New Zealand 18

## PRODUCTION

Korea Soha Plant (340,000 units), Hwaseong Plant (620,000 units), Gwangju Plant (450,000 units), Original equipment manufacturing (250,000 units) Overseas China Plant (440,000 units), Slovakia Plant (300,000 units), Georgia (USA) Plant (340,000 units)

Kia Motors Manufacturing Georgia (3,002 employees) 🔞 | Slovakia Plant/Kia Motors Slovakia in Žilina (3,696 employees) 👧 | China Plants 1 & 2 in Yancheng (4,941 employees) 21 | Corporate Headquarters in Seoul (Korea: 3 plants, 2 R&D centers, 19 regional service centers, 338 dealerships, 32,921 employees) 2

## R&D

Korea Hyundai Motor Group Technology Research Institute (Hwaseong, Gyeonggido), Eco-Technology Research Institute (Yongin, Gyeonggi-do) Overseas Technology research and design centers (United States, Europe, Japan) Technology research centers United States (Ann Arbor, Irvine) 23 | Europe (Rüsselsheim) 24 | Japan (Yokohama) 25 Design centers United States (Irvine) 👧 | Europe (Frankfurt) 👧 | Japan (Yokohama) 👧

<u>OTHER</u>

Central & South America Regional Headquarters (Miami, USA) 😰 | Eastern Europe/CIS Regional Headquarters (Kiev, Ukraine) 30 | Middle East & Africa Regional Headquarters (Dubai, UAE) 🛐 | Asia Regional Headquarters (Kuala Lumpur, Malaysia) 😥 🛛 🕅

## CEO Message

Despite the fast-changing business environment, Kia Motors has been realizing sustainable shared growth with local communities in order to move beyond 'customer satisfaction' and offer 'customer value innovation'. Kia shattered our own business performance highs once again for yet another record-breaking year in 2012. Nevertheless, Kia Motors puts the environment before business performance and continues our efforts at mutual growth with society at large.

On the environmental front, Kia Motors actively invests in and strives to realize safe, economical, and eco-friendly mobility in the form of hybrid, electric, and hydrogen fuel cell vehicles. In the meantime, we launched the Green Light Project and expanded the scope of sustainability management to do our part as a responsible corporate citizen. We continue to strive to realize sustainable mutual growth with all our stakeholders.



## **Customer Value Innovation**

Despite the global economic slowdown, strong Korean won, and domestic production challenges, Kia Motors posted the highest sales revenue and operating profit in our history. With the successful launch of the all-new premium full-size luxury K9 (Kia Quoris) and the compact K3 (Forte/Cerato) as well as facelift models, including Sorento R (Sorento) and K7 (Cadenza), Kia Motors' sales rose 7% year-on-year to 2.72 million vehicles. We not only met our sales target but we also joined the ranks of the world's top 10 automakers.

Moreover, Kia Motors' brand value grew 50% from the previous year to 4.1 billion dollars, securing a position among the global top 100 brands for the first time since our founding. All this was possible thanks to our employees' hard work and stakeholders' devotion and support. With 2013 projected to be yet another difficult year for the global economy, Kia Motors will endeavor to extend win-win value to all our stakeholders and practice sustainable management for continued enhancement of our brand value.

## **Practices for Global Environmental Protection**

Kia Motors is steadfast in practicing green management despite the growing challenges in the business environment. Reaffirming our commitment to tackling climate change, Kia Motors' Gwangju Plant became the first in the Korean auto industry to receive the ISO 50001 energy management systems certification, a comprehensive standard on business planning, practices, and implementation for curbing energy use. Coupled with the already-completed enterprise environmental management systems (ISO 14001), energy management systems are expected to enhance the operational efficiency and environmental performance of Kia Motors' worksites. We plan to expand the scope of the certification to the Soha and Hwaseong Plants as well service centers in 2013 while setting up energy management systems at all our overseas worksites. Kia Motors will spearhead efforts to creating a green society by minimizing energy consumption and maximizing energy efficiency.

## Green Light of Hope in Africa

The year 2012 was meaningful in terms of our CSR efforts as Kia Motors' social outreach projects in Tanzania and Malawi went into full swing. With the launch of the Green Light Project, Kia Motors is bringing hope to Africa where even basic human rights are forfeited due to limited mobility. Through the Green Light Project, local communities are provided with schools, modes of transport, medical facilities, and other infrastructure that improve their quality of life. Kia Motors aims to extend opportunities for a better life to local residents and ultimately build a basis for self-sufficient growth for local communities.

To Kia Motors, social outreach is not just about mere giving but rather social investment for long-term mutual growth. We want to contribute to building a sustainable society by working together to resolve social challenges. We especially value 'togetherness,' which is why we collaborate with NGOs and local agencies and work on creating a social outreach

**Hyoung-Keun (Hank) Lee** Vice Chairman & CEO May 2013

culture that encourages voluntary employee participation. We look forward to a 2013 in which our sincere efforts as a responsible corporate citizen reinforce customer trust.

By putting ourselves in our customers' shoes, Kia Motors provides true value that customers really want. We will also continue to practice socially responsible management, fulfilling our responsibilities toward customers, investors, business partners, local communities, and other stakeholders.

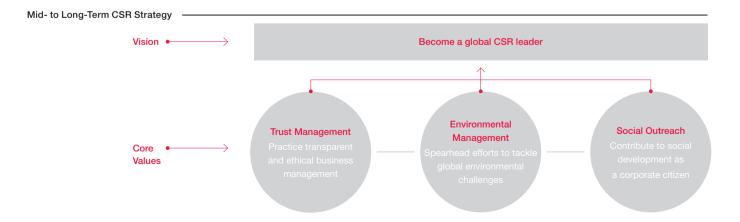
CSR Committee

## Corporate Social Responsibility

Kia Motors regards corporate social responsibility (CSR) as an overarching principle guiding all our business activities and strategic decisions. Following the creation of the CSR Committee in 2008, we spent the next three years devising and fine-tuning our CSR scheme. Our CSR initiatives went into full swing in 2011, and in 2012, we launched our flagship projects - Green Light and Green Trip. CSR is an essential tool for bringing our corporate philosophy and vision to life. Kia Motors will offer new value through the automobile, which has evolved into a lifestyle space, and share greater and more innovative value with stakeholders through socially responsible management.

## **CSR Scheme & Objectives**

Upon declaring our commitment to CSR in 2008, Kia Motors has promoted the widespread adoption of the core values of our CSR scheme-trust management, environmental management, and social outreach. We integrated our management paradigm, which had been separated into management policies and sustainability management, and organized the specific implementation measures into three core values with the following aims: carry out transparent and ethical business management (trust management), spearhead efforts to tackle global environmental challenges (environmental management), and contribute to social development as a corporate citizen (social outreach). The CSR Committee, headed by the CEO, is composed of the CSR Environmental Management Team and sector-specific teams spanning the full range of our business operations-human resources/procurement, accounting, and auditing (trust management); R&D, production, and service (environmental management); and administrative affairs and sales (social outreach). Our 2012 objective was to set up a global social outreach unit and formulate an implementation scheme. Based on the social outreach values scheme set up in the beginning of the year, Kia Motors launched our flagship social outreach projects, thereby starting the full-fledged implementation of enterprise-level social outreach initiatives. In 2013 and 2014, we will expand the size and scope of our social outreach projects and focus on raising internal and external commitment and participation.



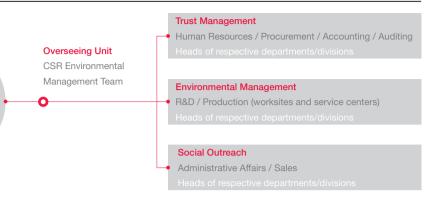
Chair

## **Green Light Project & Green Trip**

In 2011, Kia Motors embarked on our CSR mission of fulfilling our corporate social responsibility and embracing challenges to contribute to creating a better world. 'Mobility' and 'challenge' were designated as the common values for this mission. As per our principles of respecting diversity, supporting self-realization, and providing equal opportunity, Kia Motors strives to realize universal mobility, which is our duty as an automaker, and to provide opportunities to take on challenges, which is our corporate identity. To this end, we launched Green Light Project and Green Trip, our global and domestic flagship CSR projects, respectively. The Green Light Project builds schools and provides school buses to children without access to education and runs disease prevention programs and mobile clinics. Green Trip provides vehicles for travel to those with limited mobility. By ensuring universal access to mobility, Kia Motors endeavors to amplify the value of mutual growth by raising the quality of life and laying the basis for the self-sufficient growth of local communities. In 2013, we plan to expand the scope of our global CSR activities to new areas and strengthen the mobility aspect of our domestic CSR programs. We will also work on encouraging voluntary employee participation and reinforcing internal and external CSR communication to put our CSR slogan 'A Better Way to Go' in practice.



CSR Honors a	and Awards
Contribution	
	Overseeing Organization
	SAM
	Korea Standards Association
	Korea CSR Expert Committee
	Rolea Con Expert Committee
	ERISS (Economic Research Institute for Sustainable Society)
	Sustinvest (SRI consulting firm)
	Global Corporate Social Responsibility Forum: China
	Clobal Colporate Cocial Hesponsibility Forum. Onlina
	GRI & Korea Standards Organization
	LACP (League of American Communications Professionals) -
	Mercomm (awards organization for corporate reports)



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## 2013-14

2015-16

_	Honor/Award
_	DJSI Asia Pacific - Incorporated (3 years running) / DJSI Korea - Industry no. 1 (4 years running)
_	Sustainability Conference – Auto industry no. 1
_	2012 Korea CSR 30 – Incorporated (3 years running)
-	2012 Top 100 Listed Korean Businesses Sustainability Index – No. 10
	Korean business sustainability management assessment - Auto industry no. 1
	Most Socially Responsible Business in China – awarded (2 year running) [Hyundai Motor Group]
	Sustainability reports award (KRCA) – Manufacturing segment
	Vision/Spotlight Awards - Gold
-	Galaxy Awards - Silver

## **Corporate Governance**

Kia Motors strives for transparent and sound business operations through an institutional framework for evenhanded coordination and regulation of manager, shareholder, and employee interests. To this end, we guarantee the independence of the Board of Directors, under which there are three specialized committees. The Audit Committee and Board Nominating Committee convey outside stakeholder feedback and monitor the company's business activities. The Ethics Committee reviews the transparency of internal transactions and the progress in ethical management.

## **Board of Directors**

Appointed through the General Shareholders' Meeting, the Board of Directors is our top decision-making body. It promotes shareholder and stakeholder interests while also supervising and voting on key business issues with Kia's long-term growth in mind. As of the end of 2012, the Board was comprised of three standing directors, one special non-standing director, and five non-standing directors.

Regular meetings are held to vote on key issues and to make policy decisions in consideration of shareholder and employee feedback gathered at the General Shareholders' Meeting and via investor relations activities and channels such as the Q&A section found on the investor relations website.

Special meetings are convened when issues requiring the Board's deliberation arise. The Audit Committee, Board Nominating Committee, and Ethics Committee support the operations of the Board for enhanced professionalism and efficiency. The Board convened 12 times in 2012 with the non-standing directors' attendance rate at 98%. The directors were briefed on the status of the internal accounting management system and voluntary compliance with fair trade regulations and voted on the 2012 business and investment plans as well as the convening of the 68th General Shareholders' Meeting (2011) and its agenda. In 2011, the Board reviewed and voted on 41 items.

The CEO chairs the Board at Kia Motors as fast decision-making is crucial for an automaker given the short product cycle, need for large investments, and fast-changing business environment. To ensure the Board's independence, directors are briefed before board meetings so that non-standing directors can voice their respective opinions with a full understanding of the issues at hand after a thorough review. Standing and non-standing board directors receive annual base salaries according to respective position levels and performance-based bonuses within set wage ceilings authorized by the General Shareholders' Meeting. Not only financial but also social and environmental indicators are used to evaluate the Board members' performance. In 2012, the compensation cap was set at 10 billion won. The actual payout was 4.8 billion won.

## Committees

Audit Committee Three non-standing directors comprise the Audit Committee. It is stipulated that the Audit Committee be chaired by and composed entirely of non-standing directors to ensure transparency and independence. The Audit Committee monitors the transparency and fairness of Kia Motors' accounting and business practices. It has the authority to demand sales-related reports from the Board of Directors and examine the company's financial standing. Kia Motors has an internal system in place providing the Audit Committee with easy access to information pertaining to the company's business operations. The Audit Committee convened five times in 2012 to deliberate on seven items, including the 2011 settlement of accounts and the status of the accounting management system.

Board Nominating Committee Two standing directors and three non-standing directors make up the Board Nominating Committee as per the stipulation that at least one-half of this committee be comprised of nondeliberation.

Ethics Committee Composed of five non-standing directors, the Ethics Committee monitors transactions between affiliated persons as per the Monopoly Regulations and Fair Trade Law and the Capital Market and Financial Investment Business Act. It also reviews the company's program for voluntary compliance with fair trade regulations; executes major ethical management and CSR policies; and enacts, revises, and monitors the implementation of ethics codes and regulations. Kia Motors actively incorporates the committee's recommendations in our CSR and ethical management policies and activities. The Ethics Committee convened seven times in 2012 to be briefed and deliberate on 20 items, including CSR programs and donations and employee compliance with the 'Regulation of Workplace Ethics.'

Major Shareholders		40 01 2001 01, 2012
Shareholder	No. of shares	Holdings ratio
Hyundai Motor	137,318,251	33.88%
Employee stock ownership	1,090,056	
Private investors (excluding employees)	68,011,853	
Foreign investors	143,449,423	
Other (e.g., financial institutions)	55,493,764	
Total	405,363,347	

Board of Directors		
	Name	Position
Standing directors (3 persons)	Hyoung-Keun Lee	CEO, Chairman of th
		Chairman of the Boa
	Sam-Ung Lee	CEO
Special non-standing director (1 person) -	Han-Woo Park	Head of the Finance
Non-standing directors (5 persons)	Euisun Chung	Member of the Board
	Hyeon-Guk Hong	Chair of the Audit Co
	Dong-Sung Cho	Member of the Audit Committee, Member
	Keon-Su Shin	Member of the Board
		Chair of the Ethics C
	Doo-Hee Lee	Member of the Audit
	Won-Joon Kim	Member of the Board the Ethics Committee

**Board of Directors & Its Committees** 

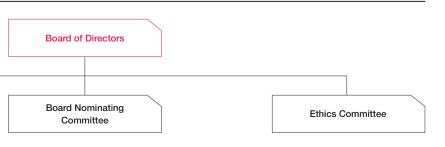
Audit Committee

standing directors. The Board Nominating Committee has the authority to recommend candidates for non-standing directors to the General Shareholders' Meeting, and in 2012, it exercised this authority upon fair and careful

## as of Dec. 31, 2012

## as of Dec. 31, 2012

	Background
e Board of Directors,	
rd Nominating Committee	
Division	
d Nominating Committee	
ommittee, Member of the Ethics Committee	(current) Vice Chairman, Gaduk Tax Consulting Associates
	(former) Auditor, National Tax Services
Committee, Member of the Board Nominating	(current) Professor of Business Administration, Seoul National University;
r of the Ethics Committee	Director, The Hope Institute
	(former) Chairman, Korean Academic Society of Business Administration
d Nominating Committee,	(current) Of Counsel, KCL (Kim, Choi & Lim)
ommittee	(former) Chief Prosecutor, Supreme Prosecutors' Office
Committee, Member of the Ethics Committee	(current) Professor of Business, Korea University
	(former) President, Korea Advertising Society
d Nominating Committee, Member of	(current) Of Counsel, Kim & Chang
e	(former)Director of Competition Policy Bureau, Fair Trade Commission



## **Communication Channels** & Issues

For Kia Motors, sustainability management is not merely one area of business management but a means of fostering dialogue and engagement with stakeholders. Communicating and trust-building with stakeholders give us the power to navigate our way into an uncertain future. This sustainability report is yet another means of engaging stakeholders in dialogue. In MOVE 2013, we identify the issues of interest to stakeholders and present our answers. We also discuss our point of view and areas of focus. We hope this report serves as a means of sharing our views and responses to narrow the differences and expand cooperation between Kia Motors and our stakeholders.

## **Channels for Stakeholder Feedback**

Kia Motors has put in place multiple communication channels to identify and respond to stakeholder needs of ever-growing diversity and to offer our thoughts and progress on the relevant actions we take. We have consistently operated channels for face-to-face contact to gather feedback and inform stakeholders of our progress and plans. We sponsor various events and publish reports to reach a wider audience. Stakeholders can now communicate with us online and offline anytime and anywhere as we have expanded our communication channels to social network and mobile platforms. We meet our stakeholders online via our official blog, Facebook (around 2.4 million 'Likes'), Twitter (around 22,000 followers, and Youtube (around 20,000 subscribers). Stakeholders can also connect with us on their smart devices through our mobile applications KIA Launcher, Mobile KIA, and KIA Ecodrive Tumble.

## Stakeholder Communication Channels

Stakeholder	Communication Channel
Customers	- Motor shows and new model launch events, test drives, sport sponsorships, customer service, customer satisfaction surveys, clubs, corporate
	website, online communication channels (Kia BUZZ, Funkia, SNS, mobile apps), SNS interactive movie, K-Lounge, reports (annual report/
	sustainability report/community relations white paper)
Shareholders & Investors	- General Shareholder's Meeting, investment road shows, website, SNS, reports
Employees	- Labor-Management Council, Employment Stability Committee, Next Generation Committee, company magazine, newsletter, online communication
	channels (intranet, knowledge community, New KIA in), Employee Counseling Center, reports
Partner Companies	- Dealer programs (seminars, dealer contests, dealer invitational events), dealership contests, seminars and training programs, win-win web portal
	(VAATZ), procurement headquarters' suggestion box, reports
Local Communities	- Social outreach activities and campaigns, corporate website, exchanges with local communities (regular meetings, public access to Kia plants),
	corporate information channels (website, SNS, reports)

## Materiality Test Results

HIGH

EXTERNAL INTEREST

MEDIUM

IPS Materiality Test™: Multilevel assessment scheme developed by the Institute for Industrial Policy Studies (IPS) in 2006 for identifying issues material to a given company's characteristics and situation for the formulation of sustainability management strategies and sustainability reports

## **Materiality Test**

INTERNAL INTEREST

Economy	Brand/design management (pp. 16-19) Competitiveness enhancement (pp. 16-19)
Customers	Product/service accountability (pp. 32-33, 62-65, 74)
General	Sustainability management strategy (pp. 6-7) Ethical management and regulatory compliance (pp. 38-41, 78-79) Risk management (pp. 16-19)
Employees	Employee health and worksite safety (pp. 35, 77) Fair performance evaluation (p. 36) Labor relations (pp. 34-36, 77) Anti-discrimination and equal opportunity (pp. 36-37, 75-77)
Local Comm	unities CSR activities (pp. 22-31, 79) Road traffic safety activities (p. 65) : Eco-friendly products (pp. 52-55, 56-61)
 LIVIOIIIIeii	r Eco-mondry products (pp. 32-33, 30-01)

The results of the materiality test undertaken in 2013 show that the focus of our management activities coincides in large part with the issues of interest to stakeholders. By organizing and reviewing the findings of the test, we were able to look back on our activities from our stakeholders' perspective. The relevant pages in the main report linked to each issue in the table above detail our standpoint on the given issue, the pertinent activities we have carried out, and our performance relative to set objectives.

The materiality test was conducted as per the following six assessment categories comprising the IPS Materiality Test<sup>TM</sup>: company policies, direct and indirect economic impact, regulations and laws, stakeholder survey, performance and issues of the respective industry, and media reports.

## Challenges & Opportunities

The global economic slowdown is dragging on, and the gap between the haves and have-nots is widening. We are experiencing climate change firsthand in the form of natural disasters and extreme weather conditions, which are growing ever more potent and frequent. Through sustainability management, we seek and practice measures to resolve these challenges. Kia Motors believes that if each of us fulfills our duties and responsibilities, such combined efforts will lead to a sustainable future. MOVE 2013 details the efforts and progress we have made over the past year based on that belief. This section outlines the global challenges of special interest to us and the measures we have taken to address them with relevant links to the main stories of this report that detail how these measures were implemented. Global challenges affect not only Kia Motors; they affect everyone. We look forward to your enthusiastic interest and participation.

## Protracted Economic Downturn & Growing Uncertainty

The global economic downturn that started in 2008 is lingering on. With advanced economies failing to rebound and emerging economies posting slower growth, the World Bank projected that global economic growth in 2013 will be a mere 2.4%. Experts are saying that sovereign debt and austerity measures taken by governments around the world have reached a tipping point. Uncertainty has further intensified with regime changes in key nations, growing tension over trade protectionism and exchange rates, regional instability in the Middle East, and North Korea's nuclear brinksmanship.





## Economic

Economic value created and shared in 2012: pp. 16-19 Quality and customer satisfaction: pp. 32-33 Safety: pp. 62-65 In early 2012, Kia Motors laid out Vision 2016 and designated quality and brand as the key objectives. Our stellar performance over the past five years owes itself to our commitment to quality. We will stay true to the basics and expand our qualitative growth for another five years. In 2012, Kia Motors made it onto Interbrand's Global Top 100 Brands list, and our vehicles received high marks in American, European, and Chinese quality assessments. Our competitive edge is spread over a regionally diversified portfolio and an impressive lineup of subcompacts whose popularity is growing in the current economic downturn. This year, Kia Motors will expand R&D investment and employee training and education programs to reinforce our foundation for the future. Profit generation is a business' foremost duty and prerequisite for survival. The economic ecosystem functions properly when a business pays its suppliers; shares the profit generated with employees, shareholders, and investors; pays taxes; and shares value with local communities. Kia Motors will always keep in mind the power of our growth as we do our very best today to create a better tomorrow.

2012-2013 Global economic growth

## Intensifying Income Inequality & Social Polarization

The World Economic Forum pointed to severe income inequality as one of the greatest challenges facing the world. Income inequality intensifies social polarization by widening class gaps and limiting equal access to opportunities. The Gini coefficient points to greater inequality the closer it is to 1, with 0.4 or greater signifying a high level of inequality. In 2010, the Gini coefficient was 0.44 for the world at large and a whopping 0.6 for Africa, attesting to just how serious a challenge income inequality has become. The global youth jobless rate is more than double that of the overall jobless rate. Korea, in the meantime, has the following urgent issue to tackle: suicide and poverty among the elderly, whose rates are the highest among OECD nations.



According to the World Meteorological Organization, climate change is no longer what 'will be' but 'what is' very much a part of our everyday lives. Heavy rain and drought, heat waves and cold spells, typhoons and hurricanes, and other extreme weather conditions are growing increasingly more potent and frequent. During the 20th century, the earth's average temperature rose  $0.74^{\circ}$ C. If greenhouse gas emissions continues to grow at the current rate, the earth will be  $2^{\circ}$ C warmer in 30 years and  $4^{\circ}$ C warmer by 2060, with 50% of living organisms projected to become extinct. The world is cooperating to ensure that the earth does not grow warmer than by  $2^{\circ}$ C—a point beyond which experts say our ecosystem may not be able to withstand. There are also continued concerns that the demand for natural resources will soon outstrip supply. Unless these concerns are unfounded or we can develop an unlimited alternative energy source, the only solution is to curb consumption.





Employees: pp. 34-37, 75-77 Partners: pp. 38-41, 78-79 Local Communities: pp. 22-31, 79 How can a business contribute to alleviating inequality and expanding access to opportunities? By creating new, stable, long-term jobs; supporting its business partners; and helping resolve challenges facing local communities. Kia Motors strives to continue expanding hiring while creating an enjoyable work environment conducive to enhancing employee competencies. We support our business partners and local communities not through simple donations but through measures that lead to self-sufficient growth. We transfer technologies to our partners, run training and education programs, and enter overseas markets with them. We create jobs for local residents and senior citizens to build a system wherein the profit we generate is distributed to low-income households. We also provide opportunities to persons with disabilities to enjoy a life of quality and dignity. In Africa, where poverty has endangered the survival of vast regions, we build schools, supply vaccines, and run education programs aimed at self-reliance.

## M

Vehicle life cycle (excluding on-the-road phase): pp. 42-51, 80-89 Vehicles on the road (status on and plans for improving fuel economy): pp. 58-61 Status on and plans for developing future-oriented vehicles: pp. 52-55 Direct emissions from industrial sectors and emissions from the transportation sector combined account for more than 40% of total CO<sub>2</sub> emissions, which is regarded as the main culprit of climate change. Automobiles, which run on oil, are made from iron ore and other natural resources as well as petroleum-based materials. With sustainable mobility as our goal, Kia Motors is striving for a green and clean automotive life cycle—from vehicle design and materials production to manufacturing, use, and disposal. To this end, we enter into green partnerships with our suppliers, minimize resource input during the manufacturing phase, and recycle waste. We also invest in innovative technologies to realize our ultimate goal of zero emissions. And we streamline our distribution system for greater efficiency and carry out research to retrieve and recover resources in the vehicle disposal phase.



Projected average temperature increase considered critical point for climate change **CREATION & DISTRIBUTION** 

## **Creation &** Distribution

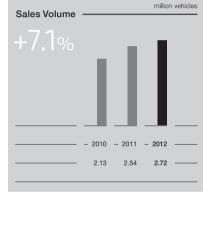
The global auto market grew 21.1% between 2008 and 2012. During the same period, Kia Motors grew 94.3%, joining the ranks of the global top 10 automakers. Our brand value also grew 273%, putting us on the list of the world's top 100 brands in 2012. Over the past five years, while a series of financial crises hit the world economy, long-time automotive leaders struggled and the global auto industry experienced a seismic shift. Kia Motors, in the meantime, made an astounding comeback following a period of difficulty that lasted until 2007. So how were we able to bring the slogan 'The Power to Surprise<sup>TM</sup>, to life? When the going got tough, we focused on strengthening our core competencies and moved forward with agility and determination to turn a crisis into opportunity. That is, we simply worked hard to bolster our skills and expertise and always stayed true to set principles. In 2013, we will look back on our past to reaffirm our commitment to the basics.

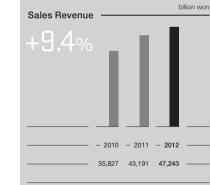




## Brand, Brand!

Kia Motors also worked hard to be viewed as an appealing brand by customers around the world, carrying out a wide range of marketing activities tailored to the specific needs and preferences of respective regional markets. In 2012, we defined our brand essence as 'A Different Beat,' signifying our hope of sharing the kind of pulsating and joyful energy found in music. The three specific keywords we chose to spread our brand vision are 'vibrant,' 'distinctive,' and 'reliable.' The year 2012 brought us domestic and international accolades for our efforts to raise brand value. The brand consultancy Interbrand ranked Kia Motors in 87th place on its annual Top Global 100 Brands list, setting Kia Motors' 2012 brand value at 4.1 billion dollars, a 50% year-on-year increase. We were also honored for the second consecutive year in the German Design Council's Automotive Brand Contest; this year, new cee'd and GT were declared winners in the interior/ exterior design and concept car categories, respectively. We also continued our winning streak at the world's top three design awards. Morning (Picanto) and Pride (Rio) won red dot awards in early 2012, resulting in a combined total of six Kia models on the winners' list four years running. In the meantime, pro\_cee'd became the fifth Kia model to be recognized with an iF design award over the past four years while Pride (Rio) was named a 2012 IDEA Award winner. Moreover, the mobile applications for Pride (Rio) and K5 (Optima) received red dot and iF awards, respectively, proving that we strive for excellence not only in product design but also in our efforts aimed at customer communication.







Sales revenue, operating profit, and net profit were tabulated as per K-IFRS. Refer to pp. 72-73 for more on 2012 sales and financial performance

We met our target in 2012 with sales volume of 2.72 million units, a 7.1% yearon-year increase. Our sales revenue posted at 47 trillion won for 9.4% growth from the previous year, while our operating profit grew 0.7% from 2011 to 3.5 trillion won. In the United States, Europe, and China, our double-digit growth in sales outpaced the growth rate of each respective market. In Russia and Africa, whose growth potential is under the global spotlight, Kia Motors sales grew a whopping 38% and 26%, respectively. Although the global economy did not rebound in 2012. Kia Motors continued to grow, It is anticipated that low growth will set in and uncertainty will intensify for the global economy in 2013. Against this backdrop. Kia Motors will focus on enhancing our core competiveness rather than extrinsic growth while continuing our efforts aimed at creating a tomorrow that is better than today.

## Three Points: Market, Product, Customer

Kia Motors has been able to come up with diversified market-specific strategies and products because of our focus on customers. Upon designating customer value innovation as our midto long-term management strategy in early 2012, Kia Motors has been working on building a management system for customer-centered policies and practices.

The release of K9 (Kia Quoris) and K3 (Forte/Cerato) has completed the K-Series lineup. In just a month of the localized K3's launch in China in October, 10,000 units were sold. In China, where the K-Series account for about half of total sales, Kia Motors grew 11% in 2012, far surpassing the growth in industry demand (6.6%). Based on Hyundai Motor Group's total sales, we have the third largest market share in China (eighth largest based on Kia Motors' sales alone). Despite the 8.1% year-on-year economic contraction in Europe where the all-new cee'd was released, Kia Motors' sales volume increased 14.5%. In the United States, where there were signs of recovery with 13.4% growth in industry demand, Kia Motors' market share and sales volume grew 3.8% and 14.9%, respectively. Our sales fell 2.2% in Korea where there was negative industry growth (2.4% year-on-year) for the first time in four years. Our domestic market share, however, stayed the same as in 2011 at 31.2%.

## DISTRIBUTING VALUE

was 30.3%. revenue).



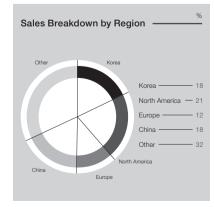
## • 2011 figure revised after official announcement

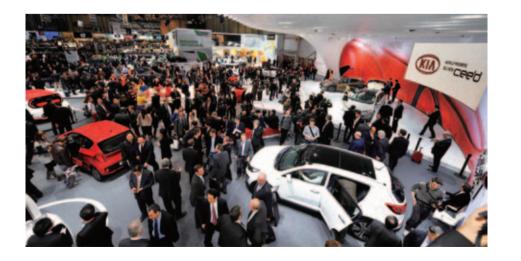


## 2013 Outlook & Strategy

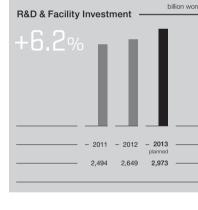
Yet another gloomy year is forecasted for the global economy, and in turn, the auto industry. Emerging markets like China, which had maintained an impressive rate of growth, are expected to fare not much better than their advanced counterparts in 2013. As such, the contraction of the Korean auto market is expected to continue, and the global auto market is projected to grow a meager 3.1%. The Middle East, North Korea, and other sources of geopolitical instability coupled with extreme weather conditions come with the potential for dramatic fluctuations in oil and commodities prices. Successive crises have intensified competition and emerging signs of trade protectionism are fueling stronger regulatory control and growing tension over exchange rates. Kia Motors has put in place a risk management system to keep abreast of the changes in the business environment and to devise timely response strategies. The system is overseen by the Chief Risk Office (CRO) comprised of eight enterprise-level bureaus and some 30 working groups that are responsible for identifying, classifying, and monitoring key risks. The CRO's findings are used in upper management's decision-making considerations. The CRO also develops and distributes standardized emergency response protocols by business area. We continue to make improvements to the system for effective risk management.

In 2013, Kia Motors will reinforce our global competitiveness through gualitative growth while systematizing customer-oriented management and strengthening core competencies. We will work toward the enterprise-wide adoption of a system aimed at enhancing customer value and implement multi-pronged strategies to effectively respond to external changes. We will diversify settlement currencies and increase overseas production to hedge against currency fluctuations. We aim to reinforce our core competitiveness by cutting costs through the use of common, standardized parts and by expanding the number of integrated-platform vehicles. We will also continue to seek new markets while gradually increasing investment for next-generation vehicles and an expert workforce.





Employment - 2010 - 2011 - 2012 ----44,098 45,312 47,104 ------



EVG is sales revenue and other profits minus other costs and depreciation costs. Refer to p. 72 for a detailed breakdown of other profits and depreciation costs.



## to local communities only includes charitable contributions as per tax regulations.



Kia Motors 41.8 (4,092,104 milli

Growth is prerequisite to corporate sustainability because the more value a company creates, the more it can share with stakeholders. With the profit generated, a business pays its employees, buys the products and services of partner companies, makes dividend and interest payments to shareholders and creditors, and pays taxes to the government. A business also helps create a virtuous cycle for the society at large through investments and job creation as well as for sustainability through its products featuring advanced technologies made possible by R&D investments.

## Investments for a Shared Future

Kia Motors continues to create new jobs, build or refurbish production facilities, and expand R&D investment. In 2012, Kia Motors' workforce grew 4% from the previous year to some 47,000 persons, with 33,000 working in Korea and some 14,000, overseas. We hired 1,580 new employees in 2012, a 97% year-on-year increase. We also continue to expand our training and education programs for employee competency enhancement and self-development. We invested 18.2 billion dollars in our employee education in 2012, a 21.3% increase from 2011. The average annual increase in employee education investment over the five-year period from 2008 to 2012

While technology innovation is important for any industry, for automakers, their very survival rides on it. Population growth, environmental changes, and other social and global challenges also demand the ongoing evolution of the automobile. Kia Motors operates seven technical and design centers in Korea, the United States, Europe, and Japan, Under the Hyundai Motor Group R&D Division is a workforce of around 9,300 specialists. R&D specialists accounted for some 30% of the Group's new hires over the past three years. In 2012, 1.5 trillion won was allocated to R&D investment, which was 58% of the total investment budget of 2.6 trillion won (5.5% of sales

Of the 1.1 trillion-won budget for ongoing investments, 71.9 billion won went to efforts aimed at mutual growth with partner companies and to domestic and overseas production facilities. We expanded the Gwangu Plant (Korea), raising the annual capacity from 460,000 to 620,000 vehicles. We are also building China Plant 3 (annual capacity of 300,000 vehicles), planned for completion in 2014. The investments a business makes impacts the larger society. The Gwangju Plant is responsible for 30% of the region's total exports. As for Yancheng, home to our China Plants, 60% of the city's tax revenue comes from Kia Motors and our partner companies. In the United States and Slovakia, Kia Motors and our partner firms along with related businesses are estimated to have created 10,000 jobs. Kia Motors' 2013 budget is 2.9 trillion won, or 6.2% of sales revenue. Our R&D budget of 1.7 trillion won for 2013 is 14% greater than that of 2012. We also plan to continue expanding our production facility investments. Kia Motors will continue to devise and execute plans toward balanced growth with society and increase the value we share with stakeholders.

## Economic Value Generated & Distributed (EVG&D)

			79.E	i% 20.4%
Partner Companies				Added-value Generated
8,197,219 million won				9,802,575 million won
2				
Kia Motors 41.8%	Employees 43.3%	Government 10.4%	Local Communities 0.2%	Shareholders & Investors 4.3%
(4,092,104 million won)	(4.245.509 million won)	(1,022,822 million won)	(22.092 million won)	(420.048 million won)

## From Salt City to the Detroit of China

While the city's salty air is a reminder of its past, heavy-duty vehicles can be found on the newly-payed roads, headed to and from countless building and plant construction sites.

In 2002, Kia Motors built a plant on Yancheng's swampland and made our inroad into the Chinese market. A decade later. our two plants have raised our local annual production capacity to 430,000 from 130,000 vehicles. Our third plant in Yancheng, with an annual capacity of 300,000 vehicles, is under construction and set to be completed in 2014. Our annual sales volume, which started at 50,000 vehicles, has skyrocketed to 480,000

2012 Sales Volume

vehicles as of 2012, a 28.6% average annual increase. In the meantime, Yancheng has experienced remarkable economic growth driven by the auto industry. There are currently some 100 Korean auto parts and servicerelated businesses in Yancheng. In addition to the 6,000 direct hires by Kia Motors, Kia Motors and our partner companies have created over 10,000 jobs. Kia Motors and our partners are also responsible for around 60% of the city's tax revenue. With the goal of becoming one of China's top five automotive hubs, Yancheng is gifting the land for China Plant 3 and offering Kia Motors lower tax rates and other incentives.

8.62

2012

50,000 481.000

## **Review of Kia Motors' First Decade in China**

## China Report

Yancheng, literally "Salt City," is a small city located on China's eastern coast. While it used to be a hub of the salt trade as recorded in Sima Qian's Record of the Grand Historian, the city's decline came as the economic significance of salt started to wane with industrialization. By the early 2000s, it was but a small rundown rural community of 300,000 residents, most of whom were either salt or cotton farmers. Some 10 years later, Yancheng, with an annual economic growth rate of 14% and a population of 850,000, is touted as an emerging industrial city. And at the center of Yancheng's reclaimed glory are Kia Motors and our 90 partner companies.

## From Global Manufacturing Hub to Global Consumer Market

China's 2012 automotive sales volume was 14.68 million vehicles, and the country has not relinguished its title as the world's largest auto market since overtaking the United States in 2009. In 2013, China is projected to claim the top spot on the production front as well. Be that as it may, China's vehicle ownership rate is still only 5%. Given that the average vehicle ownership in advanced economies stands at 70%, the average annual growth in China's automotive sales volume is expected to be at least 6% until 2020.

The power of China as a global production hub has long been palpable in all corners of the world. Now, the world's leading brands are in cutthroat competition for a piece of the world's largest consumer market which consists of a middle class population of 300 million. For the auto industry, the competition is expected to intensify further as oil prices are projected to rise and the Chinese government is planning to cut the number of new car registrations and actively promote Chinese auto brands.

Against this backdrop, Kia Motors aims to strengthen our foothold in the Chinese market as the eighth largest automotive brand and sustain our growth momentum.

As a latecomer, we managed to overtake our competitors through localization and differentiation. We have continued to increase the annual production volume at our China Plants, enhanced quality through strict quality control, and released models customized to local tastes and preferences. We have raised the Kia brand value by proactively reinforcing the dealer network through a thorough analysis of local economic growth and industrial demand and rolled out tailored region-specific marketing campaigns.

## Principled Responsibility

Another driving force of Kia Motors' growth in China has been our commitment to social responsibility. We believe that a business is socially responsible for helping resolve community challenges and contributing to economic growth to create a virtuous cycle of value through which we can grow alongside society. When Kia Motors' local offices and plants hire new employees, priority is given to local residents. At the plants in Yancheng, for instance, only 1% of the workforce is dispatched from Korea while 99% is comprised of local hires. Kia Motors builds schools to expand access to education and builds homes in lower-income or disasterstricken areas. In 2011 and 2012. Kia Motors and Hyundai Motor Group were named the

Most Socially Responsible Business in China by the Chinese press and government in recognition of our local CSR efforts.

## 2013: Another Decade in the Making

In 2013. Kia Motors plans for another decade of growth in China. We will plan for the future and continue our investments from a longterm perspective while staying true to the basics to bolster our core competencies and lay the foundation for sustained growth. Kia Motors' 2013 sales target in China is 500.000 vehicles, a 4% increase from 2012. This year, our focus will be on achieving stable growth. We will reinforce our production capabilities in preparation for a rise in demand anticipated in 2014. We will expand the dealer network in central-west China, a region expected to drive the growth of the larger Chinese market. We are also running a dealer development program to enhance our sales competency in anticipation of the growing demand for compact and premium vehicles. We will work to operate our plants at over 100% capacity as we did in 2012 for production competitiveness, strengthen employee competency, and raise quality and brand value for palpable customer value enhancement.

2012 Market Positio

10 spots 🛆

Our approach to CSR

**KIA MOTORS** 



Why do businesses have to give back? A successful business is built not only on its own painstaking efforts but also on the support from society at large. Kia Motors' growth is the result of a collaborative effort made possible by our technological competencies and purchasing power along with employee expertise as well as social institutions and infrastructure. Today's society demands that a business takes into consideration the interests not only of shareholders but those of all stakeholders in the value chain. Consumers, too, consider a business' CSR track record an important factor in their buying decision. Against this backdrop, Kia Motors puts our commitment to CSR in action, moving beyond simple giving to making investments for mutual growth.

Kia Motors systematized our CSR value scheme in 2011 and put it into full-fledged action in 2012. The Green Light Project is a community development endeavor through which we offer opportunities to become self-reliant to those with limited access to education, medical care, and cultural events and activities. We aim to be a steadfast presence and remain a long-term partner in the effort to resolve social challenges. In the process, we hope to boost company pride and strengthen customer trust, enabling all of us to work together toward sustained . mutual growth and a virtuous cycle of ever-growing value.

SPECIAL FEATURE

Despair

While Africa is often associated with conflict and famine, it is a vast continent of endless Africa's Tears of possibilities. The continent's population growth rate is twice that of the world average, with the youth (under 24 years old) accounting for some 60% of the total population of 1 billion. Moreover, the economy is expected to grow at an average annual rate of 5.8% until 2020, and the continent is rich with natural resources.

> In Sub-Saharan Africa, however, chronic poverty prevails. Children, whose immune systems are still weak, suffer from starvation and die of easily preventable diseases. If they manage to stave off diseases, they are forced to work long and grueling hours for their family's survival, stripped of their right to education; poverty is thus passed down from one generation to the next. In some areas, entire villages find themselves in this vicious cycle of poverty. Coupled with lacking infrastructure and a deficient healthcare system, there is no room for hope to take root.



Surface area: 20.4% of world's land surface Population: 14.3% of world's population Nations: 54 countries Desertification: Sahara Desert expanding by 20,000 km<sup>2</sup> annually from chronic drought since 1986 Biodiversity: Continent with largest number, type, and concentration of wildlife

Africa, home to 15% of the world's population, has a mere 3% of the world's doctors, nurses, and midwives.



Malaria is the number one cause of child mortality in Africa, killing one child every 60 seconds and 60 children every hour.





Time it takes for 60 children to die of malaria

Africa's rural villages lack schools, health clinics, markets, and other basic infrastructure. Access to transportation is often limited too. People walk an average of four hours a day to get to and from schools, seek medical attention, or buy daily necessities.





Time spent walking every day

poverty.

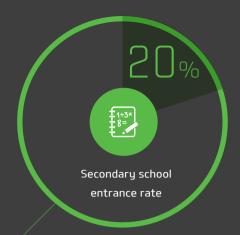
Percentage of population living

on less than 1.25 dollars a day

Some 14% of the world's population still subsists

on less than 1.25 dollars a day, and 50% of the

nations that comprise Africa suffer from abject



Only 20% of children who manage to go to primary school go on to secondary school.

Africa's daily water consumption relative to advanced nations

We consume around 395 *l* of water a day while children in Africa have to forgo education as they have walk barefoot for hours every day to find 1 lof water. Moreover, the water they do find is often polluted, and waterborne diseases strike countless children every year.

Primary school education

Half of the world's children who are denied access to primary education due to poverty, parents' death, or lack of schools live in Africa.



In 2012, Kia Motors headed to Tanzania, located in the Horn of Africa, so named for the East Africa's peninsula's likeness to a rhino's horn. The region was reeling from a famine that struck in 2011, the worst to hit in 60 years. Tanzania's Nagashanqui area is home to the urban poor, whose dreams of making it big in the city have been thwarted and are eking by on less than 2 dollars a day as day laborers or food vendors.

## **Ending Despair and Bringing Hope**



## 40% illiteracy rate, 10% secondary school entrance rate

Among the 15,000 residents, around 7,000 are children, but the town only has one primary school. There are 100 students to a class. They sit on dirt floors as the school lacks chairs and desks. To get to the nearest secondary school, children walk for two hours. Basic infrastructure such as running water, electricity, roads, and public transportation is nonexistent, and hardly any NGOs operate in this poverty-stricken town. But what the town's residents want most is education for their children.



Here, Kia Motors built the Kia Green Light School and donated four vehicles.



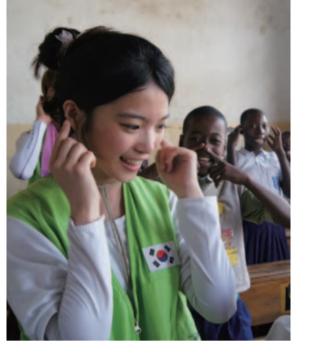
Babies are left unattended due to dire poverty, and children walk for hours to fetch muddy water.



## Jun.-Dec. 2012

## $10\% \rightarrow 30\%$





Aiming to raise secondary school entrance rate to 30% by 2017

Kia Motors donated four specially outfitted Bongo (K-Series trucks) to the community. The vehicles are serving as school buses as well as shuttles to markets and hospitals, which would take the residents several hours to get to on foot. Most low-income settlements in Tanzania lack sewerage systems and restrooms, so after the biannual rainy season, the fetid water that pools breeds carriers of infectious diseases. The donated vehicles go around town to provide fumigation and disinfection services as well as health and hygiene education programs.



Aiming for 50% malaria infection rate by 2017

Kia Green Light School offers secondary education to 250 children and also serves as a daycare center for infants who would otherwise be left unattended.

Kia Green Light School also acts as a community center and health clinic. Malaria, one of the deadliest diseases afflicting Africa, has an infection rate of 89%. However, 90% of malaria infections can be prevented by the use of simple mosquito nets. Green Light School gives out insecticide-treated mosquito nets to residents, offers vaccinations and medical supplies, and provides prenatal care to expectant mothers. We also run awareness programs on health and hygiene awareness, education, and children and women's rights so that people can lead healthier, higher-quality lives.



We now have a well, soup kitchen, library, and clean restrooms.

Kia Motors supports the Millennium Development Goals (MDGs) of the United Nations Development Programme (UNDP). The eight MDGs and corresponding icons are listed below. The MDG goals of relevance to the Green Light Project are marked in green. We have marked our social outreach activities detailed in the following pages with the relevant icons to indicate which MDGs they are helping to realize.

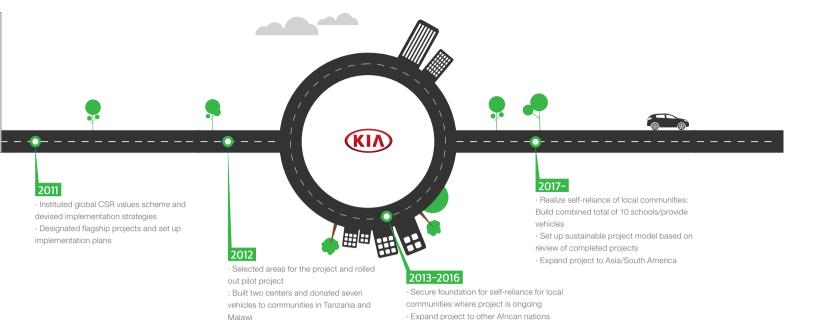




## Jul. 2012 -Feb. 2013.

In July 2012, Kia Motors launched our second Green Light Project in Salima, Malawi. With 72% of the nation's population living on less than 2 dollars a day, Malawi is one of the world's poorest countries. It also has the world's tenth highest AIDS mortality rate. In Salima, comprised of five villages whose combined population is 6,000, there is only one hospital bed to every 1,000 people. The Kia Green Light Center built here is designed primarily to serve as a community center. The vehicles Kia Motors donated will each serve as a mobile library, mobile clinic, and mobile theater. The services-on-wheel offered include afterschool programs for children and health education programs for area residents. We also plan to work with the Salima Health Center to offer children health checkups and meals.

1 Eradiate abject poverty and hunger 2 Achieve universal primary education 3 Promote gender equality and empower women 4 Reduce child mortality 5 Improve maternal health 6 Combat HIV/AIDS, malaria, and other diseases 7 Ensure environmental stability 8 Build global partnership for development



## What We Do Best & What We Must Do

In 2011, Kia Motors instituted a CSR values scheme to integrate the social outreach activities that had been undertaken separately by individual worksites or areas. We set up the CSR Environmental Management Team and a specialized body compromised of outside experts. Our global CSR values scheme imbues our CSR efforts with a sense of purpose and brings together our once-diffused CSR competencies. Our two core CSR values are mobility-the realization of universal mobility-and challenge-the internalization of a can-do attitude toward challenges. Ultimately, we strive to nurture individual growth and enable self-reliant growth of local communities.

The following section deals primarily with social outreach activities undertaken as per our CSR values scheme. Those activities that correspond with the principle of mobility or challenge have been marked accordingly with the relevant icon(s).

## Green Light Project

Malawi

## Mobility Challenge



In 2012, we named our flagship CSR endeavor 'Green Light Project' and put our values into action in Tanzania and Malawi. We built a school in Nagashanqui, Tanzania and a community center is Salima, Malawi. We donated vehicles to undertake education and public health programs and enhance the mobility of area residents. Kia Motors is providing food, water, and medical supplies to children and other local inhabitants suffering from

malnutrition and disease. We are also running educational programs designed to promote selfreliance. The Green Light Project, Kia Motors' collaborative effort with Good Neighbors, Food for the Hungry, and SBS' Africa Schools of Hope Project, will continue to expand its scope, helping a growing number of African communities stand on their own feet.



'Green Light Project' is the name of Kia Motors' global CSR endeavor that aims to extinguish the 'red light' of limitations and despair and illuminate the 'green light' of hope. To officially declare our commitment to this goal to ourselves and our stakeholders around the world, we came up with the Green Light Project logo. The logo will act as a traffic light indicating our steadfast dedication to and continued expansion of the project.

## Green Trip



Kia Motors' CSR efforts focus on realizing the shared values of 'mobility' and 'challenge.' Launched in June 2012 with the goal of putting our commitment to mobility (universal right to mobility) in action, Green Trip helps people with disability go on family trips. As of 2011, persons with disability accounted for 5.4% (2.68 million persons) of the Korean population, but only 0.12% of the welfare budget was earmarked for this sizeable group. This is one of the lowest among OECD nations. Given the lack of public awareness, social infrastructure, and institutional support, a simple family trip is often an unthinkable luxury to a person with disability in Korea.

Green Trip is not a group travel program that could be construed as a publicity stunt of photo-friendly outings of large groups of persons with disabilities. This joint effort with Able Welfare Foundation helps people with disabilities go on family trips when they want and with whom they want. Selected applicants are provided with an Easy Move vehicle (Grand Carnival [Carnival/Sedona]) equipped with a hand controller for driving assistance and a wheelchair lift. The program also offers chauffeur service and gas or travel allowance. Applicants and respective program packages are selected based on the type or level of disability and income level. In 2012, 310 families (1,341 persons) took advantage of the Green Trip program and enjoyed meaningful getaways. In 2013, Kia Motors plans to expand the scope and target of the program and add field trips, pioneering trips, and other special travel packages to the two-day family trip, holiday homecoming, and other existing packages.

## Programs to Expand Access — Challenge to Education



Kia Motors undertakes CSR projects to address challenges facing local communities in Korea and overseas where our worksites are located. In the United States, we donated 1 million dollars to Donorschoose.

org, an online charity for classroom projects, to help public schools struggling from budget cuts with the growing US budget deficit. Our decision to contribute to an education charity was based on a survey of 219 US dealers and

## Mobilitu

employee feedback. Kia Motors will continue donating to Donorschoose.org to support the advancement of public education in the United States. Halfway across the globe in China, where social polarization is intensifying, we are building Hope Primary Schools through Project Hope, a Chinese state-run public service project for children in poverty-stricken communities. We joined the project in 2010, and work is currently underway with the goal of building or refurbishing 30 Hope Primary Schools, 14 of which have been completed. And through the ongoing Kia Village Construction Project launched in 2009, we have built 90 homes in Sichuan and Guangdong.

## Social Enterprise -

## Easy Move



Founded with the goal of contributing to ensuring unfettered mobility for people with disabilities, Easy Move is Korea's first social enterprise that manufactures assistive and rehabilitation equipment. Easy Move

Mobility

aspires to be a competitive export-oriented business specializing in driving aids and other advanced assistive products and technologies for persons with disabilities and the elderly population. It reinvests over 2/3 of operating profit in technology R&D and employment expansion for a marginalized segment of society. In so doing, Easy Move realizes the mutual advancement of the economy and social welfare.

Kia Motors, along with the Hyundai Motor Group, founded Easy Move and provided 2.9 billion won over a three-year period. In January 2012, Shinhan Bank invested 1.2 billion won in the venture. Currently an independent operation, Easy Move posted 5 billion won in sales in 2012. Kia Motors will share business management know-how, set up joint procurement arrangements, and offer other indirect support for Easy Move to grow into a self-reliant and competitive enterprise.

CUSTOMER SATISFACTION

M

Refer to p. 74 for more on customer satisfaction assessments and results.

**Quality & Service: Twin Engines of Customer Satisfaction** 

## Customer

CERATO

## Focus

On the first floor of Kia Motors' Corporate Headquarters is a room that has been used exclusively for our monthly product quality meeting since 1999. After each meeting, attended by upper management and the heads of product development and manufacturing, every effort is made to address the issues raised within one month. In 2011, Kia Motors entered into a customer service agreement with the Ritz-Carlton to receive regular feedback and advice on our service quality. So why do we hold product quality meetings presided by the CEO and turn to a hotel to learn about service? While it is important for us to sell more cars, it is even more important that our customers are satisfied with our products and services. That is why we continue to make improvements and seek verification.  $\overline{}$ 

## Four Secrets to Quality

First is the product quality meeting, now in its 15th year. The meeting has developed into a unique feature of our product management system, playing a pivotal role in promoting inter-departmental cooperation on guality-related issues. Second is the Pilot Center at the Group's Technology Research Institute. At the center, established in 2003, newly-developed vehicles are put through the exact same manufacturing process as that of an actual Kia production facility. Vehicle blueprints are revised if problems are detected. Third is the Development Product Center, which has been overseeing all quality-control issues pertaining to the powertrain, chassis, steering system, A/C unit, electrical system, trim, and other functionally independent units. The center inspects vehicles in development, analyzes past problems, and develops technical standards. It also looks at the causes of competitors' recalls to see whether the same problems can be found in our cars and studies used vehicles to seek improvement measures. Fourth is the Global Quality Situation Room, which operates around the clock to handle reported problems. The relevant technical team is informed of a given problem within 24 hours of receipt, and the technical team works with pertinent organizational unit(s) for solutions that are shared through our global network.

## **Quality Recognition & Commitment**

In the 2012 Initial Quality Study (IQS) conducted by the automotive assessment company J.D. Power & Associates, Soul and Pride (Rio) came in first place in the United States and China, respectively, in their respective vehicle segments. In the China Quality Association's China Automobile Customer Satisfaction Index, Pride (Rio), K5 (Optima), and Sportage topped their respective segments. Sportage also received the highest score among 118 vehicles in J.D. Power's UK Vehicle Ownership Satisfaction Study (VOSS) and was named Auto Bild's '2012 4WD SUV of the Year' in Germany. Moreover, Kia Motors was honored as the 'Best Car Manufacturer' in the 2012 Which? Awards in the UK. Quality has been our steadfast priority and principle. We consider the accolades we received in 2012 as both recognition of our efforts and reminders for continued improvements. We will work even harder in 2013 for recognition not only from expert assessment agencies but for palpable customer satisfaction enhancement.

## Service with Greater Expertise & Convenience

Kia Motors' smart services went into full-blown operation in 2012. We offer SMART Q, a remote automotive diagnostics service, and Touch Call, wherein a phone call for real-time consultation or emergency dispatch is connected directly to the Smart Consulting Center using near field communication technology.

Through Kia Motors' One-stop Service, customers can receive both consultation and repair services from automotive specialists. While the repair or maintenance work is in progress, customers can enjoy beverages and music in a customer lounge while monitoring the realtime status of their vehicles. We also offer compensation for unnecessary maintenance work. Customers can file a complaint to the Smart Consulting Center if they suspect unnecessary maintenance work has been done and demand an investigation. If the claim is proven true, Kia Motors offers compensation of up to 300% of the amount billed for the unnecessary work.

If in-warranty repair takes one day or longer, we provide a free rental car. In 2012, customers at 8,654 locations received free visiting inspections through Q Service for around 220,000 vehicles.

## **Evolving & Advancing Service**

In 2012, Kia Motors expanded the partnership agreement for customer service we signed with the Ritz-Carlton in 2011 to also include sales promotion and marketing. The Ritz-Carlton, a global chain of 81 hotels, is the only two-time American hotel brand winner of the prestigious Malcolm Baldrige National Quality Award. The Ritz-Carlton Seoul evaluates Kia Motors' customer service and develops customized customer service manual and educational contents. Among the 721 domestic Kia sales offices evaluated in 2012, 87 were certified as Customer Contact Points of Excellence. We plan to continue the pertinent assessments and training in 2013 for greater customer satisfaction.

Kia Motors operates a portal site (DM Mate) for customer management support. We also have a database of customer information with which we can extend services tailored to customer needs and preferences. Every month, we reward 20 employees based on positive customer feedback, and we run CS training programs not only for sales but also nonsales staff to enhance our overall CS competencies. In 2012, 19,407 Kia sales staffers and 102 employees from service partners at 1,797 locations as well as 9,642 new recruits (184 training sessions) at Kia Corporate Headquarters and domestic plants received CS training.



## Winning Employees' Hearts & Minds

Korea has the highest suicide rate among OECD nations, its happiness index ranks 32nd among 34 nations assessed, 87% of Korean workers complain of work-related stress, and work satisfaction stands at a mere 69%. These figures indicate an unhappy society, and social discontent has put the notion of 'healing' in the spotlight. In the early 2000s, a sense of optimism and determination prevailed in Korea as demonstrated by the 'well-being' trend. A decade later, Korea is determined to find a remedy that will heal a society languishing in pessimism and despair. Have we been too focused on moving forward, neglecting the various problems that have required our attention? In 2012, Kia Motors and our employees mulled over this question and found a solution. With our newfound insight, we plan to heal from within and then work on long-term solutions to heal society at large.

## System for Psychological Well-being

Maeum Sanchaek (literally, 'Soul Stroll') counseling center opened its doors in 2012. Employees' stress level and work satisfaction not only determine their quality of life but also impact job performance. Maueum Sanchaek is where employees can openly discuss and seek advice on causes of psychological distress ranging from workrelated issues and children's education to marital problems. The center is run by an outside organization (Korean Counseling Psychological Association) so that employees can use it with greater peace of mind. Employees are also free to drop in during work hours, enhancing accessibility and convenience of use. There are counseling centers at all our domestic plants, and employees at sales and service points have access to 250 local counseling clinics nationwide. Maeum Sanchaek was launched in August 2012 based on an agreement reached earlier in the year

between labor and management. The center is getting more use than anticipated, with some employees even bringing their children to resolve parent-child conflicts. Kia Motors plans to make Maeum Sanchaek accessible to contract workers and the local community with the long-term goal of spreading a culture of open dialogue and positive thinking to address rather than avoid the problems that weigh us down. Kia Motors also continues to expand the scope of the New Kia campaign which was launched in 2008 to build a unique and distinctive corporate culture. With the goal of fostering a new creative organizational culture, the campaign is comprised of a wide array of programs aimed at encouraging dialogue among employees and promoting family participation. New Kia is one of our many efforts aimed at realizing employee happiness and satisfaction at work and at home

## Institutions to Ensure Health & Safety

Kia Motors strives to create a healthy, safe, and pleasant work environment. Our worksites feature gyms and industrial clinics that offer not only general treatment and care but also physical therapy for musculoskeletal disorders. These facilities are free of charge and are also open to employees of our partner firms. We provide health screening allowance to ensure that employees receive regular checkups and stay healthy. For general physicals, we subsidize physicals at oriental medicine clinics and screening for adult diseases in addition to the basic tests and examinations that are legally stipulated. For employees who have provided 10 or more year of continued service and one family member for every qualifying employee, we offer subsidies for customizable comprehensive physicals as well as 50% of the cost associated with additional physician-recommended tests. In 2012, we provided around 3.2 billion won to 18,656





Refer to pp. 75-77 for more on the composition of the workforce as well as data and figures on wages, employee education and training, and workplace injuries and accidents

persons (12,135 employees, 6,521 family members) who took advantage of the full physical subsidy program. As per the collective bargaining agreement, we subsidize one dental implant and up to three cosmetic surgery procedures for work-related injuries. Medical fees are subsidized through a group accident insurance policy. We also provide our employees' immediate family members with medical allowance, contribute to their National Health Insurance premium, and offer discounts and other benefits at select healthcare providers. Related expenditures amounted to 20.3 billion won in 2012.

## Pledge for Equal Opportunity & Compensation

Kia Motors strives to provide employees with equal opportunities and an environment free of discrimination. Employees are recruited through open hiring, and we do not discriminate on the basis of gender, nationality, religion, or social status. In evaluating a job application, we focus mostly on the cover letter to ensure that applicants are assessed based on their competencies and enthusiasm rather than quantifiable credentials. Interviewers conduct interviews without knowledge of the applicants' educational background or standardized foreign language test scores. In 2012, we hired 598 new employees, an 82% year-onvear increase. The total number of employees in 2012 grew 1.1% from the previous year to 32,921 persons (Korean worksites). Persons with disabilities accounted for around 3.2% of the workforce. Some 84.3% (27,746 persons) of Kia employees in 2012 were union members eligible for collective bargaining. Kia Motors upholds the three labor rights stipulated in the Constitution of the Republic of Korea and guarantees the right to fair and free union activities as per the Collective Agreement. The Labor-Management Council meets guarterly to discuss and resolve pertinent issues.

Kia Motors provides employees with equal opportunities and fair compensation regardless of nationality or gender in accordance with company regulations (Collective Agreement Article 25, Employment Regulation Article 4). The same pay scales apply to both genders, and wages are determined as per a standardized compensation scheme based on the duration of service. We are working on adopting an objective performance assessment process involving quantifiable data analyses, identification of assessment patterns, and assurance of potential errors.

## Supporting Diversity

Kia Motors' HR policy gives preference to local applicants in the hiring process both in Korea and abroad. As of 2012, non-Koreans accounted for 30.1% (14,183) of our total workforce (47,104), and 97.9% of the workforce at overseas worksites were local hires. The 1,116 local employees in managerial positions (20.4% year-on-year increase) accounted for 78.6% the total managerial-level employees. To compete in the global market, a business' products and services must be tailored to local needs and inclinations. With our preference for localized recruitment and operations, Kia Motors releases products and services optimized for the local market, boosting our business performance and contributing to local economic growth.

To instill a sense of corporate unity and identity among employees at locations scattered across the globe, we run a work exchange program for staffers from our overseas offices. In 2012, 11 qualifying employees were given the opportunity to work at Corporate Headquarters and a domestic production facility as well as experience Korean culture. We also run regional and global specialist programs wherein employees in Korea get to experience working at our overseas offices. To reinforce the competitiveness of our overseas offices, we will run a program in 2013 for team heads and executives aimed at fostering exceptional talent. In 2012, Kia Motors set out to implement consistent HR policies and practices worldwide and promote steadfast enhancement of employee competencies under the slogan



Female consumers were responsible for over 40% of Morning (Picanto) sales and 29% of total sales across the entire Kia lineup. Women's labor force participation and job opportunities traditionally have been limited in the automotive sector, a machinery-based manufacturing industry. Based on women's growing purchasing power and their work competencies. Kia Motors is striving to expand the percentage of women in our workforce and their participation in management activities and decision-making. With the majority of our workforce comprised of production workers (65%), women employees only accounted for 2.7% (880 persons) of our total workforce in Korea in 2012. However, the number women managers grew 11.5 times from only 2 in 2008 to 23 in 2012. Also, for the first time in Kia's history, a woman was appointed as a senior vice president in 2010. While we still have a long way to go, Kia Motors is endeavoring to offer women greater opportunities and to build a corporate culture that embraces diversity and creates synergy.

## Strengthening Competencies

Retaining and fostering talented employees is just as important as recruiting them. We run a mentoring program to help new recruits adapt to the Kia workflow and work environment. In 2011, we designated our direction for HR HR development system and a mid- to long-term HR strategy. Employee education and training is comprised of the Common Global Program as per the Global Human Resource Development Standards (GHRDS) and self-run programs at each office. The Common Global Program, which is for domestic and overseas employees alike, is made up of courses to enhance professional expertise and leadership skills, internalize Kia's core values, and improve communication skills through a greater understanding of diverse cultures. Global e-Campus, Hyundai Motor Group's standardized education and training system, allows domestic and overseas employees to set individualized self-development goals to strengthen their competencies. The system also serves to share not only official but also unofficial study plans and methodologies. Since 2004, we have been providing life planning or job consulting services for retiring or resigning employees. We also have in place a website for former Kia Motors' employees to receive necessary administrative assistance. In 2012, 74 retirees took advantage of our retirement planning program. The turnover rate in 2012 was around 0.4%.

**Mutual Growth: Defining Partnership** 

## From Supplier to Partner

In a business environment where innovation has become routine, the scope of business competitiveness extends to the business ecosystem. Some 95% of the parts that make up a car come from partner companies. In the auto industry, where technological competency is key to success, mutual growth with partners has become a prerequisite for survival and growth. In Korea, Kia Motors' direct hires total around 30,000 persons, but our direct and indirect hires in auto-related industries amount to 1,750,000 persons (as of 2010). That is to say, our support for partners is not merely a larger company helping its smaller counterparts but rather a means for Kia Motors, our partner companies, and the society at large to grow together.





KIS)

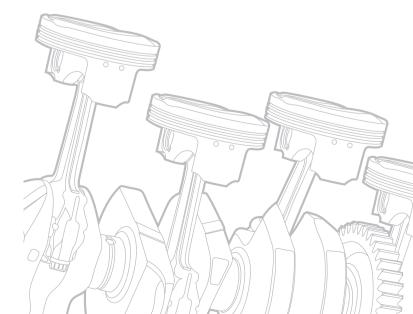
Refer to p. 78 for more on partner assistance programs. Visit the Hyundai-Kia Mutual Growth Portal for our partner assistance policies and related progress and information.

## **Three Mutual Growth Strategies**

Kia Motors has adopted three strategies for mutual growth and set up overseeing units for effective implementation. The three strategies are as follows: 1) Promote partners' global competitiveness; 2) Reinforce foundation for mutual growth; 3) Set up system for mutual growth. We continue to expand partner assistance and training programs and work on extending the same benefits to our secondary partners. Internally, we have the Committee for Promoting Win-Win Cooperation and R&D Partner Technology Support Team, and externally, there is the Foundation of Korea Automotive Parts Industry Promotion (KAP). The Committee for Promoting Win-Win Cooperation oversees Kia Motors and Hyundai Motor's mutual growth policies while the R&D Partner Technology Support Team is in charge of technological support to partner businesses. KAP, cofounded in 2002 by Kia Motors, Hyundai Motor, Hyundai Mobis and 165 partner companies to promote the advancement of the automotive parts industry, operates on an annual budget of some 5 billion won (4 billion won cash, 1 billion won investment in kind) provided by the Hyundai Motor Group.

## Strategy 1. Promoting Global Competitiveness

Based on our belief that today's competitiveness is determined by quality and tomorrow's by technology, Kia Motors is working to boost our partners' competitiveness. The Quality/Technology Volunteer Corps and the Partner Support Corps, organized under KAP, are composed of expert members from diverse fields and advisors who were former automotive executives. They extend technical training and management consulting. Kia Motors also runs quality and technical schools that provide partner SMEs with management, quality, and technical training. In 2012, 3,967 persons took the 9 courses offered at the quality school, while 1,132 persons enrolled in the 7 courses by sector offered at the technical school. The R&D Partner Technology Support Corps of the R&D Partner Technology Support Team





shares Kia Motors' technology development know-how and extends other support tailored to a given firm's needs. We also have in place the Five Star Scheme for primary partners and the SQ Mark Certification Program for secondary partners for standardized quantitative assessment of our partners and for extending incentives to high-performing partners.

In April and May 2012, Kia Motors hosted our first-ever job fair for partner firms with the twin goal of helping our partners find talented workers and contributing to alleviating the problem of youth joblessness. Some 250 partners took part in the fair and carried out over 60,000 job consultations. We also have in place programs for mutual competency enhancement. Through the Value Engineering (VE) System, we work with our partners for the domestic production of imported parts to lower costs without compromising quality. We also run the Guest Engineer Program for collaborative research in new car development. The average monthly participation in 2012 was 310 engineers from 45 partner companies.

## Strategy 2. Reinforcing Foundation for Mutual Growth

Cash flow is crucial to stable business operations, and for sustained growth, a business must be able to take advantage of today's opportunities to invest in the future. Kia Motors makes cash payments for the goods and service provided by our small and medium partners and organizes bulk purchases to help our partners cut procurement costs. Partners can apply for funding assistance as per their needs, whether it is for general business operations, improving quality or productivity, or facilities investment. The 300 billion won Family Network Loan Program is designed to



help primary partners make cash payments to secondary and tertiary partners. We currently have in place nine funding programs whose combined funds amount to around 900 billion won.

We also help our partners set up shop near our overseas production facilities. This arrangement minimizes the risks associated with overseas expansion for partners as there is established demand. In return, we secure a stable supply of high-quality parts. Kia Motors Manufacturing Georgia (KMMG) went into operation in 2009, and 29 partners expanded their operations to the US state of Georgia. These 29 firms directly and indirectly created 2.7 times the number of jobs Kia created directly. In China too, our partner firms created twice as many more jobs than us. Currently, there are 594 partner firms that have set up shop overseas with the Hyundai Motor Group, including Kia Motors. Since 2004, Kia Motors has been a part of the HR Development Consortium with the Hyundai Motor Group, Ministry of Labor, and our partners. Through this consortium, we offer expert technical training and future executive leader seminars to partner company employees. We also set up Venture Plaza to help venture firms that need funding or want to jointly develop Kia partners' ideas. Kia Motors and our partners share all rights and returns from a jointly developed technology, from patent rights to profits generated from the developed technology's application or commercialization. In 2008, Kia Motors joined forces with the National IT Industry Promotion Agency and Microsoft to found the Automotive IT Innovation Center (AIIC), spearheading efforts to develop new business ventures and promote the advancement of SMFs.

Strategy 3. Setting up System for Mutual Growth Since 2009, Kia Motors, as part of the Hyundai Motor Group, has been faithfully observing the terms of the Agreement on Mutual Growth and Fair Trade. Some 203 partners signed the fourth Agreement in 2012 and reaffirmed our shared commitment to mutual growth.

Kia Motors has in place an indirect assistance scheme for secondary and tertiary partners. We reward and provide incentives for best practice cases of win-win cooperation between primary and secondary partners. We also run joint task force teams with primary partners to extend quality and technical support to secondary partners. A mutual growth point system is in place to encourage primary partner to extend support for win-win advancement to secondary and tertiary partners. We have also joined forces with the government to run an assistance program aimed at inducing partners to curb energy use and cut costs for enhanced competitiveness by setting up pertinent management systems.

Meanwhile. Kia Motors continues to improve our own policies and schemes. We established the Procurement Headquarters' Code of Ethics and Outsourcing Guidelines to ensure ethical work processing at departments that work with partner firms. We also have in place a system for resolving grievances from partner company employees. In 2012, 25 grievances were filed, and we are investigating the cases to resolve the matters and prevent recurrence. To ensure the efficiency and transparency of the procurement process, we set up the Value Advanced Automotive Trade Zone (VAATZ), an open online bidding system for domestic and overseas partners. Bids are objectively assessed in terms of the bidders' service/product quality, supply, and technologies as per the Five Star Scheme. To encourage ethics management and CSR management at partner firms, we have been offering code of conduct guidelines and taking pledges for ethical management from partner companies since 2009. We plan to expand the scope of our ethical management training, which we currently only offer to primary partners, to secondary and tertiary partners as well. In 2011, Kia Motors and our partners adopted the joint CSR Charter, pledging mutual cooperation on setting up CSR management systems and carrying out CSR programs.

VAATZ (Value Advanced Automotive Trade Zone) Open bidding e-procurement system



## Mutual Growth: Decade of Progress

(Hyundai Motor-Kia Motors combined total, primary partners)

Duration of Partnership (as of 20



Partners included in survey Partners whose partnership has las

Business Size Growth



Large enterprises SMEs with sales of 100 billion won

Financial Soundness





2001 2011

11)	Sales Growth
	Partners' average sales revenue growth
S	<b>2.9</b> x

	289
ted 20 years or more	214

2001	73.3 billion won
2011	211.3 billion won

Market Capitalization Growth -



	2001	2011
	46	133
or more	23	35

50.9 billion wo

163.0 billion wo

2001	46 partners	1.5 trillion won
2011	62 partners	15.6 trillion won



'n	2001	152%
n	2011	112%

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Efforts to Curb Use & Waste

## Green & Clean

There are some 1 billion vehicles on the roads across the globe today. That is one for every seven people. Around 80 million cars were sold worldwide in 2012, and Kia Motors alone sold 2.72 million. A single car is made up of around 20,000 components, and large amounts of raw materials and natural resources are needed to manufacture these components and assemble them to make a car. And resources inputted inevitably generate waste. The sheer size of this process and the volume of resource input and waste output remind us of the weight of our responsibility. Kia Motors develops and applies means of cutting consumption and waste across the entire automotive life cycle. We continually monitor our results and make improvements to realize our goal of being green and clean.

## (M) (B)

Action Plan

Environmental

Management

Visit the Kia Motors' website for more on our environmental management philosophy and framework. Refer to p. 80 for more on environmental performance and p. 85 for environmental management systems at worksites.

## Green Growth •Develop and supply green vehicles •Out energy consumption and greenhouse gas emissions

## Design Phase —

The programs applied to the design phase affect the rest of the vehicle's life cycle. We limit the use of hazardous chemicals and use green substitutes while creating designs that minimize resource input and optimize the disposal process. Kia vehicles, which are the products of rigorous green design considerations, continue to receive recognition for their impressive environmental performance.

In 2012, we set up GrEEN, a network of environmental experts at Kia worksites across the globe, and organized a workshop for 68 employees specializing in environmental fields from Corporate Headquarters, R&D centers, and worksites. GrEEN is a consultative body for sharing the latest in environmental regulations and environmental performance at Kia worksites and for discussing regulatory response measures and means for making our worksites greener. In 2013, we plan to delineate the details of these proposed measures and means and apply them to our work processes.



Green Design System Kia Motors applies Design for Environment (DfE) standards to improve our vehicles' environmental performance and enhance recyclability. Developers follow set guidelines to determine the environmental impact of raw materials and make green design

## Environment Management Framework & Objectives -

Since declaring our commitment to a global environmental management framework in 2003, environment has been Kia Motors' foremost consideration in all our business strategies. Our cars are designed to facilitate resource circulation, and we have entered partnership agreements with suppliers for the green production of the materials we use to build our cars. Meanwhile, we endeavor to create a clean production environment, raise the transport efficiency of raw materials and manufactured cars, and disclose environmental details of our products to customers. And we set environmental management objectives and assess our progress against key performance indicators (KPI) while drawing on enterprise-wide competencies to continue improving our environmental performance.

## Risk Management

·Strengthen comprehensive risk management competencies

•Expand communication with internal and external stakeholders

## Green Production

Reduce pollution and raise efficiency

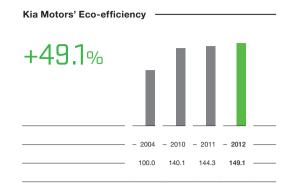
## Resource Circulation

Reduce waste and raise recycling rate

choices. We use digital blueprints to assess recyclability. Components with low recyclability are enhanced or replaced, and we subject vehicle prototypes to the actual dismantling process and compare their recyclability to existing vehicles. The assessment results are used as reference materials in developing follow-up models.

## **Chemical Management System**

Regulatory restrictions on hazardous chemicals are growing tougher worldwide. The EU instituted the Registration, Evaluation and Authorization of Chemicals (REACH) in 2007, while the United States passed the Green Chemistry Initiative, banning ozonedepleting substances and regulating hazardous chemicals. China, in the meantime, has put into



effect regulatory restrictions on the use of hazardous automotive chemicals (four major heavy metals, methyl bromides, and flame retardants). The use of four major heavy metals (lead, mercury, cadmium, and hexavalent chromium) is banned in Korea, while in Canada, reporting controlled chemicals is required by law.

Since 2002, Kia Motors has banned the use of the four major heavy metals and developed safer substitutes. Kia Motors' self-developed e-CMS (e-Chemical Management System) is a database comprised of information on chemical substances collected from the International Material Data System (IMDS). From the vehicle design phase, Kia Motors uses e-CMS information on chemicals and hazardous substances used in vehicle components.

In 2010, we developed ProdTect, which makes use of IMDS data for the assessment of the recyclability of a vehicle in the design phase through an analysis of the composition and weight of the raw materials. In 2012,

new cee'd. Sorento R (Sorento) and K3 (Forte/Cerato). which were designed using this system, received regional certifications. All newly released models meet recyclability and reusability certification standards and relevant regulations in Korea, Europe, and China. The data managed via ProdTect is not only used to satisfy regulatory requirements but also serves as a standard for various environmental assessments.

## Eco-efficiency

Since 2007, Kia Motors has been tabulating the ecoefficiency of our company at large by comparing the economic value (sales revenue) generated against resource consumption and CO<sub>2</sub> emissions. Ecoefficiency is an umbrella concept encompassing both economic efficiency and ecological efficiency. With the eco-efficiency of the base year of 2004 set at 100%, our eco-efficiency in 2005 came in at 103%, a marked enhancement. In 2012, our ecoefficiency shot up 49.1% from 2004 and increased 4.8 percentage points from 2011.

In addition to assessing our enterprise-wide ecoefficiency, Kia Motors discloses certified information on the environmental impact of each of our products to help consumers make green and smart choices. Life Cycle Assessment (LCA) is a method of assessing the environmental impact of every stage of the automotive life cycle. A newly-developed Kia vehicle is subjected to the LCA, the findings of which are compared to those of the previous model. Moreover, we get outside assurance of our findings for ISO 14040s certification. So far, 10 Kia vehicles

For more environmental information on our products, visit Kia Motors' website 'Experience Kia' and Korean Environmental Industry & Technology Institute's EDP website.

Hyundai Motor and Kia Motors' environmental standards specify requirements and relevant regulations pertaining to parts manufacturing. Visit the VAATZ website (http:// www.vaatz.com/supplier/) for the full text of 'Hyundai Motor Group Environmental Standards' and 'Agreement on the Supply of Eco-Friendly Automotive Parts.'

· SCEM: Supply Chain Environmental Management · SCEP: Supply Chain Eco Partnership

have been certified by TÜV NORD in Europe and UL in the United States, both of which are authorized certification service providers. Among them, cee'd and the all-new cee'd were also given ISO 14062's Design for Environment (DfE) certification by TÜV NORD.

In Korea, we are part of the Carbon Footprint Labeling certification program overseen by the Ministry of Environment, Starting with K7 (Cadenza) in 2009. all new Kia models have received carbon footprint

## Parts Procurement Phase

Since 2003, Kia Motors has being helping our partner companies set up environmental management systems (EnMS) through the SCEM program. Until 2010, we assisted our partner firms in building integrated EnMS for determining and managing the carbon footprint of their products and production processes. Moreover, we also advised our partner firms for ISO 14001 certification, and as of the end of 2012, all our primary partners are ISO 14001-certified. Since 2006, we have been expanding the scope of our environmental management support to include secondary and tertiary partners, co-operating with our primary partners in the SCEP program. In 2013, we plan to sign an agreement with the government on an integrated energy/greenhouse management pilot system for large, medium, and small enterprises. With the aim of enhancing energy efficiency, Kia Motors will share energy-related data with 10 partners and supply them with instrumentation and computer

models

International Material Data

System (IMDS): Parts and

operated jointly by auto

materials management system

manufacturers around the world

to meet regulatory standards on

hazardous substances. Through

manufacturers share information

composition of automotive parts.

IMDS, raw materials suppliers.

parts suppliers, and auto

on the weight and chemical

ISO 14040s-certified models (TÜV NORD)	
Year	Model
2008	cee'd
2010	Soul, Venga, Sportage R (Sportage)
2011	K5 (Optima), Pride (Rio), Morning (Picanto)
2012	Sorento R (Sorento), K5 (Optima) Hybrid, new cee'd
	Sorento R (Sorento), K5 (Optima) [certified by UL]



2011

2012

istry of Environment's Carbon Labeling-certified models		
	Model	
	K7 (Cadenza)	
	K5 (Optima), Sportage R (Sportage)	
	Morning (Picanto), K5 (Optima) Hybrid, Pride (Rio), Ray	
	K9 (Kia Quoris), Sorento, K3 (Forte/Cerato), Ray EV	
	K5 (Optima) Hybrid [certified low-carbon product]	

labels. The amount of direct and indirect greenhouse gas emissions at each stage of a product's life cycle is measured, converted into equivalent CO<sub>2</sub> emissions amount, and affixed on the product in the form of a certified label. Our new product releases were assessed to emit less CO<sub>2</sub> than previous models. K5 (Optima) Hybrid, whose CO<sub>2</sub> emissions are around 27% lower than its gasoline counterpart, was certified as a low-carbon product in 2012.

The parts (materials) manufacturing phase generates the most CO<sub>2</sub> emissions (10-15% of CO<sub>2</sub> total emissions during a vehicle's life cycle) after the usage phase. Kia Motors and our partners have entered into green partnerships whose terms are in accordance with Kia Motors' self-developed environmental standards that are tougher than global regulatory standards. We regularly monitor the level of compliance at our partner companies and provide support for the establishment of environmental management systems at partners that need assistance keeping up with the latest green trends in the automotive industry.



Support for Environmental Management

processing infrastructure needed to set up EnMS.

## Support for Regulatory Compliance

Through IMDS and the self-developed e-CMS, Kia Motors shares information on controlled chemicals with our partners. We not only regularly organize education and training programs on the latest environmental regulations and industry trends but also undertake random inspections of our partners' production facilities and request corrective measures if controlled substances exceeding permissible levels are detected. Furthermore, we assist with the analysis of controlled substances around the world and work with our partners to eliminate the use of hazardous substances and opt for substitutes. And in addition to signing the Agreement on the Supply of Eco-Friendly Automotive Parts in 2007 with our primary partners, setting forth standards for environmental management practices, we regularly update and distribute environmental guidelines for proactive response to global environmental regulations pertaining to automotive parts manufacturing. With the goal of expanding the scope of our environmental management support, which is currently focused predominantly on our domestic partners, Kia Motors runs environmental education and training programs, provides support for environmental certifications, and builds environmental monitoring systems for our partners overseas.

## **Production Phase**

Kia Motors strives to put in place a clean production system that minimizes resource input, cuts waste and emissions, and raises the recycling rate. Raising resource input efficiency and the recycling rate in auto manufacturing can make a huge difference as the process requires large amounts of steel and other raw materials as well as energy. Kia Motors consistently makes improvements to our facilities and work processes to enhance our environmental performance. In 2012, we built a pilot carbon capture and storage (CCS) plant at the Namyang R&D Center. We are currently testing the technological applicability of the plant, whose annual CO<sub>2</sub> processing capacity is 18 tons. In 2015, we plan to commercialize CCS and resource regeneration technologies as a means of curbing the Hyundai Automotive Group and subsidiaries' greenhouse gas emissions while undertaking research to apply bio material regeneration technology to automotive parts.

Emission figures based on Scope 1 (direct) and Scope 2 (indirect) emissions of three Korean worksites (Soha, Gwangju, Hwaseong Plants)

M

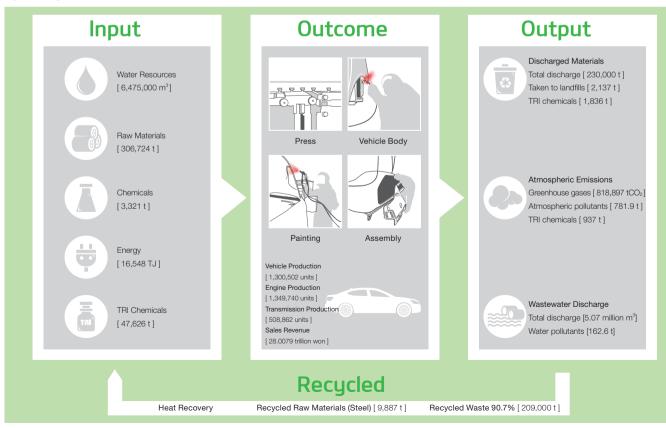
Vehicle production volume does not include OEM units. Refer to pp. 80-84 for more on our efforts aimed at reducing energy usage and greenhouse gas emissions.



## Material Balance of the Auto Manufacturing Process

Kia Motors strives to reduce the input of energy and natural resources and other raw materials while curbing the output of waste materials, greenhouse gases, and environmental pollutants. We are also concurrently enhancing the efficiency of the manufacturing process for greater production volume. We tabulate our yearly resource input (resources used), output (waste and emissions), and outcome

Input & Output Flow



123kg

reduction since 2008

25.8%

Decrease in water resource

consumption since 2003

23%

from 2003

Per-unit waste reduction



## Raw Materials

Raw materials that go into manufacturing a car include steel, paint, thinner, and plastics. Raw materials consumption grows with the increase in production operations and volume. Kia Motors focuses on cutting per-unit resource input to raise the number of products manufactured for the resource inputted. We also make improvements to our production processes to curb the rate of increase of total resource consumption and work to raise the recycling rate to cut the amount of disposed waste. We tabulate our resource consumption and track our progress annually, focusing on steel, paint, thinners, and Wrap-Guard film. In 2012, we recycled 9,887 tons of steel. We will continue our efforts to raise the recycling rates of all resources that go into our production process.

## Water Resources

Although 70% of the earth's surface is covered by water, only 0.5% is accessible for consumption. According to the World Health Organization (WHO), half of the world's population suffers from diseases stemming from limited access to clean water supplies. The UN found that some 0.9 billion people worldwide do not have access to clean water and that water shortage will affect half of the world's population by 2025. With annual per-capita precipitation that is only 1/10 of the global average, Korea is classified as a country with potential water shortage problems. Kia Motors strives to protect the world's valuable water resources by encouraging employees to make water conservation a part of the Kia lifestyle and by making ongoing capital investments and upgrades. Kia Motors' water resource consumption in 2012 decreased 25.8% from the base year of 2003, with total consumption of 6.475 thousand m<sup>3</sup> and per-unit consumption of 5.0 m<sup>3</sup>.

## Waste

Waste materials that are not reused or recycled are buried or incinerated, so they have a direct impact on the environment. Kia Motors has put in place a streamlined waste management system while we consistently improve our waste recycling rate and work to curb per-unit waste generation. As a result of our efforts, Kia Motors' Gwangju Plant

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## (value generated) to monitor our performance and make improvements. The diagram below provides an overview of the resource input, output, and outcome

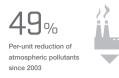
received the Minister of Environment Award for Resource Circulation for doing its part to protect the environment and cut costs by recycling and curbing waste. In 2012. 90.7% of the 230.336 tons of waste generated at our three Korean plants was recycled. The waste generated per vehicle manufactured was 177 kg, a 23% decrease from 2003 levels. The waste materials from our Korean plants taken to landfills or incineration facilities in 2012 stood at below 1% of the total waste generated. Of note, the Soha Plant has been maintaining its zero (0%) landfill waste record for several years now. With the ultimate goal of generating zero waste for incineration, we plan to lower the share of incinerated waste, which currently stands at 8.4%, to less than 3% of total waste generated by 2016 through recycling, improved packing methods, and heat recovery.

## Energy & Greenhouse Gases

The global population continues to grow, and consumption is growing at an even faster pace due to economic growth and urbanization. This is why Kia Motors makes a concerted effort to minimize environmental pollution by curbing emissions, waste, and natural resource consumption. Based on our belief that tomorrow is not predetermined but made, we continue to seek measures for improvement. Energy consumption is responsible for more than 80% of total CO<sub>2</sub> emissions, the culprit of climate change. Kia Motors is undertaking multi-pronged efforts to cut CO<sub>2</sub> emissions and we are fully committed to the government's greenhouse/energy target management initiative launched in March 2011. In 2012, the Gwangju Plant adopted the ISO 50001 global energy management standard and set up a plant-wide energy reduction scheme. We plan to expand the scope of this effort to all domestic plants in 2013. In 2012, our Korean worksites generated 819,000 tons of CO<sub>2</sub>, which marks a 123 kg per-unit reduction (753 kg  $\rightarrow$  630 kg) since the base year of 2008. The per-unit reduction is equivalent to the annual carbon intake of 22 30-year-old pine trees, and the total CO<sub>2</sub> emissions reduction for 2012 amount to the annual carbon intake of around 28.36 million pine trees.

## **Environmental Pollutants**

Through our emissions monitoring system, Kia Motors manages atmospheric and water pollutants generated in the automotive manufacturing process against self-developed standards that are more stringent than government standards. We use raw materials with low toxicity, optimize work processes,



·BOD/COD: Amount

of oxygen needed for

pollution.

microorganisms to break

down organic matters in the

water. Used as a measure of

water pollution. The lower the

value is, the lower the level of

·SS: Concentration of solids

suspended in water

recycle and reuse byproducts, and efficiently process waste materials to curb per-unit emissions and minimize the impact on local communities.

Atmospheric Pollutants Atmospheric pollutants generated during the automotive production process include paint particles and volatile organic compounds (VOC) from painting and coating, dust particles from materials processing, and gases from combustion. Kia Motors continues to reduce the emission of atmospheric pollutants by replacing existing raw materials with those of lower toxicity, installing equipment that blocks the emission of pollutants, improving work processes, and adopting clean production technologies. In 2012, our Korean worksites generated 781.9 tons of atmospheric pollutants, a 49% per-unit decline since 2003, and 7,577 tons of VOCs, whose recovery rate was 58%.

Water Pollutants Kia Motors minimizes the discharge of water pollutants by treating our wastewater and applying rigorous self-developed standards for wastewater management. To maintain an optimized wastewater treatment process, we undertake ongoing repairs, maintenance, and upgrades. The concentration of pollutants in the discharged water is monitored around the clock to prevent environmental

accidents. In 2012, the per-unit biological oxygen demand (BOD), suspended solids (SS), and chemical oxygen demand (COD) declined between 25.4% and 33.5% from 2003 levels.

Hazardous Chemicals Hazardous chemicals require careful management as they damage the environment and human health. Registration, Evaluation and Authorization of Chemicals (REACH), launched by the EU in 2007, is aimed at minimizing the impact of chemicals and strengthening accountability over their management. In Korea, hazardous chemicals are regulated by the Toxic Chemicals Control Act. Kia Motors has completed the early REACH reporting process and continues to monitor the use of REACHcontrolled chemicals. We are also committed to the Ministry of Environment's Toxic Release Inventory (TRI) program, a voluntary reporting scheme for the volume and types of controlled chemicals used. In 2012, our Korean worksites used 3,321 tons of chemicals, a 10.1% per-unit decline since 2003, and handled 47.626 tons of TRI-controlled substances.



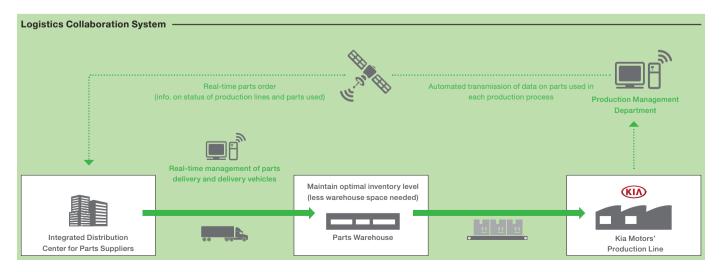
## **Distribution Phase** -

In 2012, some 1.3 million Kia cars produced in Korea were transported to reach our customers in Korea and abroad. These cars were made from the parts and materials our partners transported to our plants. And even at the plants, the parts and materials were moved around as per production schedules. A single car is comprised of tens of thousands of parts, and transporting these parts costs money, consumes energy, and generates CO<sub>2</sub> emissions. Given that our annual production volume is over a million vehicles, a streamlined distribution system is a must. Kia Motors has a team dedicated to making ongoing improvements to the efficiency of our distribution system, and we set annual cost targets to track our performance. We met our 2012 target of cutting distribution costs by 15.1 billion won (actual reduction: 14.5 billion won). Our 2013 reduction target is 15.5 billion won.



Supply Logistics: Streamlining Procurement

Supply logistics involves the transport of parts and materials to Kia Motors from our partners. We operate integrated distribution centers for enhanced transport and loading/unloading convenience. We also have in place a real-time delivery order system at all our domestic plants for the efficient supply of parts on a timely, as-needed basis. Kia plants and 310 primary partners currently share logistics information pertaining to parts and materials through the Win-



Win Collaboration Portal System. In 2013, the system will also be made available to our secondary and tertiary partners. We plan to set up a pilot parts tracking system at the Gwangju Plant 2 in 2013, and later, at Hwaseong Plant 1 and Soha Plant 1 as well. When quality issues arise over a given automotive component, the system will allow us to track the relevant cargo and transport vehicle.

## Production Logistics: Streamlining Inventory Management

Production logistics involves the movement of parts within a plant to make them available in accordance with the production schedule. We have three main systems in place for efficient inventory management. First is the One-kit System, which completed a pilot run on a sub-line in 2012, will be applied to the main production line in 2013. This system, which enables the production of up to three vehicle models per line, was adopted to effectively respond to the lack of

storage space and installation errors stemming from the increasingly diversifying inventory of components. Through the system, the parts for a single vehicle are put in a box (kit) and automatically fed to the relevant assembly line. We also set up a conveyer system for the automatic supply of heavier parts for more efficient use of logistics equipment and human resources.

A parts shortage forecasting system, which was put into pilot operation in 2012 at the Soha Plant's engine line, will be expanded to the said plant's engine transmission line this year.

In 2013, we plan to build a system for forecasting customer demand and determining the short-term production plans of individual vehicle models to more effectively manage the inventory of unused imported parts.

## Sales Logistics: Streamlining Cargo Transport

Sales logistics involves the transport of assembled

vehicles to shipping centers and the storage of these vehicles at production facilities or regional shipping centers. The key is cutting travel distance. To this end, we are replacing existing transporters with models of greater cargo capacity and rerouting outbound cargo to export ports closer to our plants.



rate target



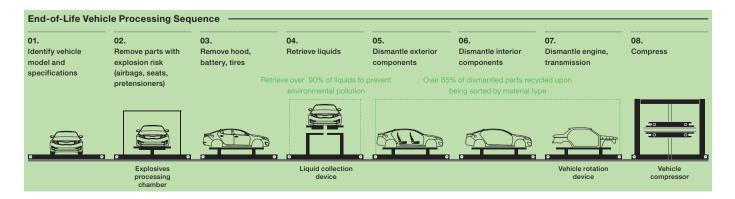


Automobile Resource Regeneration Center Founded in 2005. Kia Motors' Automobile Resource Regeneration Center develops diverse dismantling and recycling technologies and features an ecofriendly dismantling system comprised of eight continuous-flow processes, from ELV registration to the compression process. With the goal of raising the ELV recycling rate to 95%, we dismantle some 1,000 test vehicles every year and share the technologies we develop with ELV service providers.

## **ELV Recycling Technologies**

Disposal Phase

An auto industry-wide consensus has been reached on ISO 26021, an international standard on the removal airbags using on-board diagnostics (OBD). In 2012, Kia Motors developed our own OBD-based airbag removal device as well as a technology to retrieve and recycle the nylon bag from air bag





Refrigerants and heavy metals are used to manufacture cars. Unless properly processed in the vehicle disposal phase, these substances pollute the environment, Furthermore, it is estimated that the optimized reuse and recycling of the parts and materials from around 700,000 vehicles that are decommissioned every year can generate an economic value of 11.5 trillion won, including some 1.8 trillion won from rare metals. In February 2013. Kia Motors signed an agreement with the Ministry of Environment on the Advanced End-of-Life Vehicle Resource Regeneration Pilot Program, whose goal is a 95% recycling rate for 168,000 end-of-life vehicles (ELV) by 2015. As part of this effort, we plan to supply ELV service partners with free equipment to retrieve and process 100% of disposed refrigerants as well as guidelines on recycling steel, non-steel metals, and airbags.

modules. We have also developed specially designed parts connectors that are easy to dismantle. Based on our current progress, we expect to cut waste residue generated per unit (midsize car) from the current 19% to 13% by 2015. Our ultimate goal is to raise the ELV recycling rate to 95% by recycling 85% of ELV residue into automotive components or building materials and recovering the rest as heat or steam energy.

## **Recycling Green Vehicles**

To facilitate the recycling of electric and hybrid vehicles, we have developed a manual on the safe disposal of high-voltage lithium-polymer batteries and distributed it throughout the automotive dismantling and recycling industry. We also developed a discharge system to retrieve residual electric power from these batteries. We will continue developing and sharing processing technologies that will ensure the safe and efficient recycling of end-of-life green vehicles.

## **EcoDynamics** Roadmap

**Future Vehicles: Progress & Plans** 

# **EcoDynamics**!

Energy consumption and the transportation sector are responsible for 84% and 23%, respectively, of CO<sub>2</sub> emissions, the culprit of climate change. These figures point to the goals toward which automakers should strive: curbing energy consumption or doing away with CO<sub>2</sub> emissions altogether. Enhancing motor vehicle fuel economy leads to lower energy consumption and CO<sub>2</sub> emissions relative to the distance traveled. This is what hybrid electric vehicles (HEVs) are designed to do. As for the goal of zero emissions, electric vehicles (EVs) and hydrogen fuel cell electric vehicles (FCEVs) hold the key. Kia Motors is laying the groundwork for cars to coevolve with the changing planet as we believe the opportunity to shape a positive future still remains open. We are investing in a brighter future for humankind by enhancing the eco-friendliness of our vehicle lineup and contributing to the realization of sustainable mobility.

## 

Stage 1: -2005 Develop prototype (HEV), Research platform technology (FCEV)

## Launch pilot fleet (FCEV)

Li-poly Battery 30% lighter than Ni-MH battery but with 63% greater output density

combustion engine.

Hybrid in 2011.

Nu 2.0 HEV Engine High fuel economy and low CO<sub>2</sub> emissions (100 g/km)

16.8 km/2

K5 HEV

**Electric Motor** 30% lighter and 18% smaller than competitors'

## EcoDynamics: Technologies for the Future

Kia Motors launched EcoDynamics in 2009 and released the Forte LPi Hybrid under this green sub-brand. The name EcoDynamics is comprised of the terms eco from ecology (nature and environment), economy (efficiency), and dynamics (energy and vitality). It embodies our commitment to contributing to the betterment of humanity and the earth by adding sustainable mobility to the existing value of cars. The K5 (Optima) Hybrid and Ray EV, both released in 2011, are following in the footsteps of the Forte LPi Hybrid. We have also been running a Mohave hydrogen FCEV pilot program since 2008.





## Stage 2: 2005-2009

Build mass production system (HEV),

Stage 3: 2010-

Diversify lineup (expand exports), Start mass production (EV)

## Hybrid Electric Vehicle (HEV)

HEVs are powered by an internal combustion engine and an electric motor. Compared to existing internal combustion engine cars, HEVs boast higher power and fuel economy as well as lower CO2 emissions. The electric motor supplies the power (EV mode) when the vehicle starts or is traveling at low speeds. The electric motor assists the engine during acceleration, and either the engine or motor powers the vehicle when it is traveling at a constant speed. Electricity consumed at starts and during acceleration is recharged by the braking energy generated during deceleration. The engine shuts down to cut unnecessary fuel consumption when an HEV comes to a stop, thus raising fuel economy during stop-and-go city driving, while EV mode driving and enhanced efficiency reduce CO<sub>2</sub> emissions. However, unless an alternative fuel source free of CO<sub>2</sub> emissions is commercialized, HEVs will never realize zero emissions because they still rely on the internal

## K5 (Optima) Hybrid

Harnessing the technologies secured through the Pride (Rio) pilot fleet program we launched in collaboration with the Ministry of Environment in 2005, Kia Motors released the Forte LPi Hybrid in 2009 and the K5 (Optima)

The K5 (Optima) HEV features Kia's proprietary parallel hard-type hybrid system. A hardtype HEV is only powered by the motor when traveling at low speeds while a soft-type HEV is powered by both the engine and the motor at all times. The motor is what sets the K5 (Optima) Hybrid apart from existing HEVs. The power-split system of existing HEVs features two motors, one to recharge the battery and the other to power the vehicle. However, a single motor does both in the parallel configuration Kia Motors has adopted, and this motor is smaller and lighter than those of the power-split drivetrain, thereby raising fuel economy. The secret behind Kia's success with the parallel system is the engine clutch technology, which other automakers had given up on due to technical difficulties. When a vehicle needs more power to accelerate or go uphill, the engine clutch connects to the engine to make the motor and the engine work

simultaneously. The key to this technology is the speed of the connection. After extensive trial and error, Kia Motors managed to lower the connection speed from over 1 second to 0.6 second or less, thus enabling the successful commercialization of the powersplit electric hybrid drivetrain.

The battery determines an HEV's performance as the energy stored powers the motor. Like the Forte LPi Hybrid, the K5 (Optima) HEV is equipped with a lithium-ion polymer (Li-poly) battery pack, which is lighter than its nickelmetal hydride (Ni-MH) counterpart but has higher output and energy density. The K5 (Optima) HEV is the world's first hard-type HEV employing Li-poly battery technology. The battery system has a quadripartite safety feature extending from the battery cells to the vehicle control mechanism. The K5 (Optima) HEV also provides a more comfortable driving experience and higher fuel economy with its HEV-specific six-speed transmission. We have succeeded in producing all the electric power components in Korea, thereby laying the foundation for sustained technological advances and enhancing the competitiveness of our partners.

## Electric Vehicle (EV)

EVs run solely on electric energy supplied by a high-voltage battery. It takes around six hours to charge the battery at a general charging station and 25 minutes at a high-speed charging station. As they run only on electric power, EVs are zero-emission vehicles. However, given that most electric power is currently generated through fossil fuel-based systems, EVs are responsible for indirect CO<sub>2</sub> emissions. Other drawbacks include the lack of charging stations and the charging time, which is longer than what it takes to refuel internal combustion engine vehicles



## Mohave FCEV Specs

Motor | 110 kW induction motor Temperature | -20°C startup Storage | 700-bar hydrogen storage system Speed | Max. 160 km/h Distance | 690 km per charge

## Ray EV

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Kia Motors released the Besta EV in 1986 and the Sportage EV in 1999. Kia Motors has thus spent over 20 years researching and developing EVs and EV batteries. Drawing on this accumulated knowledge and know-how, we launched the Ray Electric Vehicle (EV) in 2011.

The Ray EV is a multi-purpose compact CUV well-suited for urban driving and cargo transport. It comes with a built-in GPS navigation system that indicates nearby charging stations and the remaining distance the vehicle can cover as well as the status of energy flow and usage. The Ray EV features wheels with low rolling resistance tires that minimize air resistance. A sophisticated safety system lowers the risks posed by high-voltage components. By producing all the key parts in Korea. Kia Motors has laid the basis for the advancement of homegrown EV technologies. Kia Motors is working with government ministries and agencies to expand opportunities for the public to experience the Ray EV. With the Ministry of Knowledge Economy, we joined a pilot program run by a consortium led by the Korea Electric Power Corporation in August 2012 through which we provided a fleet of 20 Ray EVs for free public trial rentals. 86% of users said they were satisfied with the Ray EV's quiet driving experience, driving performance, and ecofriendliness. Since February 2013, we have been part of Seoul City's Car-sharing Service program. Car-sharing is an effort to move away from the existing paradigm of private

full-time car ownership to communal asneeded usage. Service users can rent a car at a charging station nearby and then return the car to the station they designate at pickup. The Car-sharing Service is currently being operated as a pilot program at eight charging stations in the Seoul Metropolitan Area. The Ray EV was named Top 10 Technology of Excellence in the green energy segment at the Top 10 Green Awards co-hosted by the Korea Institute of Energy Technology Evaluation and Planning and the Ministry of Knowledge Economy in June 2012. It also received the Green Innovation Award (Environmental Minister's Award) in January 2013 at The Asia Economy Daily's 3rd Green Car Awards. We are operating a pilot fleet of 2.500 Ray EVs to test performance and lay the groundwork for an EV market with the goal of mass-producing a compact EV model for the general public by 2014.



**Ray EV Specs** 

Motor | 50 kW max. output Battery | 16.4 kWh Speed | Max. 130 km/h Distance | 139 km per charge Efficiency | 5.0 km/kWh energy efficiency





## Stack: Fuel cells stacked on

top of one another to obtain desired power output

Kia Motors started R&D on fuel cell technology in 1988. With the successful certification of our low-temperature (-20°C) startup technology, we managed to overcome what was considered a major hurdle in FCEV commercialization. In 2009, we succeeded in developing the Mohave FCEV, a second-generation FCEV featuring a 115 kW fuel cell stack and a supercapacitor, a next-generation energy storage unit. The fuel cell stack is built into the underfloor for even weight distribution. enabling more dynamic driving performance and more stable maneuverability. With its 700bar hydrogen storage system, the Mohave FCEV can travel up to 690 km on a single charge and has a maximum speed of 160 km/h. The vehicle is designed to minimize damage to the hydrogen tank and pipes in rear-end collisions and is equipped with a sensor to detect hydrogen leaks caused by impact, thus fulfilling U.S. collision safety requirements.

## Mohave's Fuel Cell Technology

The Mohave FCEV's durability and technological superiority were proven with the successful completion of the 2.655 km U.S. Hydrogen Road Tour 2009. We have succeeded in the local production of 99% of hydrogen fuel cell technologies. With some 120 partner companies, we are working to reduce the size of the fuel stack, enable startup at -30°C, and raise the system's efficiency.



## Fuel Cell Electric Vehicle (FCEV)

FCEVs run on the electricity generated by the chemical reaction between hydrogen and oxygen. Since the only by-product is water, FCEVs can tackle the twin challenges of environmental degradation and energy depletion. Moreover, the FCEV system is twice as efficient as that of the existing internal combustion engine drivetrains. For FCEV commercialization, however, the hydrogen-generation process has to become more energyefficient and a network of hydrogen fueling stations must be set up. Korean and global automakers are working toward the goal of commercializing FCEVs and putting a network of charging stations in place by 2015. There are also discussions on turning to wind power as a means of making the hydrogen production process less costly and more eco-friendly.

**Technologies for Enhanced Fuel Economy** 

Fuel economy has taken center stage amidst the global economic crisis and the global consensus on the need to tackle climate change. Fuel economy and CO2 emissions have a 99.9% correlation. That is, raising vehicle fuel economy and lowering CO<sub>2</sub> emissions make up the equation of affordable and gr n mobility. Enhancing fuel economy requires advanced and complex techn s to make the engine smaller, enhance transmission performance,

CERATO

Energy

improve on present developments for an even better future.

KIA QUORIS

Efficiencu

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lower the friction coefficient of automobile components, and reduce the weight of the vehicle body. Aerodynamic design considerations must also be made, and a system limiting idle revolutions has to be put in place. Kia Motors focuses on technologies for greater efficiency and seeks continued market verification to

## **Global Fuel Economy Regulations & Kia Motors**

Tougher government regulations on fuel economy went into effect in 2012 around the world. In Korea, 30% of cars sold must meet average fuel economy or CO<sub>2</sub> emissions standard of 17 km/*l* or 140 g/km, respectively. By 2015, this will apply to all cars sold in Korea. In Europe, 65% of cars sold must have average CO<sub>2</sub> emissions of 130 g/km or less. By 2015, 100% of cars sold in the region will have to fulfill this standard. Japan and China have set their target average fuel economy for 2015 at 17.0 km/l and 16.9 km/l, respectively. The United States, in the meantime, set its Corporate Average Fuel Economy (CAFE) target at 34.1 mpg (14.5 km/l) for 2016 and will be raising the current minimum by 5% annually. Government regulations worldwide will continue to strengthen as per respective roadmaps that extend out as far as 2025.

In the October 2012 corporate average fuel economy report issued by the U.S. National Highway Traffic Safety Administration (NHTSA), Kia Motors posted an average fuel economy of 36.2 mpg (15.4 km/l), thereby surpassing both the business-specific target (33.1 mpg) and the 2016 target. Meanwhile in Europe, newlyregistered Kia vehicles in 2011 had average CO2 emissions of 137 g/km, an 18% decline from 167 g/km in 2004. Our improved performance is the result of meticulous technological innovations applied to even the smallest details of our cars as described in the following pages.

## GDI + TURBO

## Engines: Downsizing & Diesel

Engine downsizing involves either decreasing the engine's size (engine displacement or number of cylinders) or maintaining the size but raising fuel economy and performance while cutting emissions. Reducing engine displacement by 30% and 50% raises fuel economy by 15% and 25%, respectively, but it also decreases engine output and torgue performance. Decreasing the number of cylinders increases noise. vibration, and harshness (NVH). Kia Motors applies direct injection and turbo technologies to raise performance while strengthening stiffeners and modifying component structures to minimize NVH. In 2012, we developed a proprietary CVVL technology that enhances engine efficiency while maintaining displacement size. We are working to expand and enhance the performance of our diesel lineup with the growing interest in diesel engines in the green car market.

Gasoline Engines: Turbo, GDI, CVVL The 2012 Ray turbo model employing the Kappa 1.0 turbo engine has 36%, 46%, and 5% greater maximum output, torque, and fuel economy (based on new fuel economy standards), respectively, than its predecessor. The three-cylinder Kappa engine for city and subcompact cars has higher fuel economy and emits less CO2 but boasts higher output than the existing four-cylinder engine. We made the components lighter for less NVH while improving their durability for a quiet driving experience. Turbo technology has also been employed for enhanced performance.

With turbocharger technology, the engine exhaust powers the turbine, which compresses the air that gets sucked in and injects it into the engine to raise performance and efficiency. When turbochargers meet gasoline direct injection (GDI) technology which injects fuel directly into the cylinders for greater engine absorption efficiency, engine downsizing

is realized as displacement is lowered while performance is enhanced. Kia Motors has developed a full lineup of GDI engines for all vehicle classes ranging from the Lamda engine for full-sized vehicles (K9 [Kia Quoris], K7 [Cadenza]) and the Theta engine for mid-sized vehicles (K5 [Optima], Sorento R [Sorento], Sportage R [Sportage]) to the Gamma engine for compacts (K3 [Forte/Cerato], Soul). We will continue to expand the application of turbo GDI engines for complete engine downsizing across our entire vehicle lineup. A car is powered by the force of the combustion generated when fuel and air meet. Therefore, we have conducted

continuous R&D on technologies to more effectively control the fuel and air to boost performance and efficiency. Direct injection and decreasing the number of cylinders are means

Atmospheric pollutants generated from fuel combustion had of enhancing the efficiency of fuel injection while continuous posed an obstacle that diesels had to overcome to become variable valve lift (CVVL) is a means of raising the efficiency a dominant market player. In Europe, emissions of particulate matters (PM) and nitrogen oxides (NOx) are regulated by the of air injection into the combustion chambers. In 2012, we Euro-V standards, while Euro-VI, with 56% tougher restrictions, succeeded in developing the Nu CVVL engine by optimizing air intake to raise performance and efficiency. The Nu CVVL will go into effect in 2014. Korea has in place strict emission engine has been applied to the 2013 K5 (Optima). regulations modeled after those in Europe while the U.S. state of California is gradually raising the mandatory sales quota of Diesel Engines: CRDi, DPF, LP EGR Diesel cars, which had super ultra-low emission vehicles relative to total sales through accounted for only 4% of imported automobiles to Korea in the SULEV standards. Diesel vehicles emit carbon monoxide (CO), hydrocarbon (HC), PM, and NOx, 90% of which are 2005, made up a whopping 50% of imports last year. In the United States and Europe, diesel cars accounted for close removed by diesel oxidation catalysts (DOCs) and the diesel to 30% and 50% of all new cars sold, respectively. The particulate filter (DPF). For NOx, which DPF is unable to filter, Kia Motors developed the Low Pressure EGR system (LP EGR) market, which had once turned its back on diesel cars for their noisiness and exhaust, is showing newfound interest in and the Lean NOx Trap (LNT) in 2012. LP EGR reprocesses exhaust that has not been fully combusted, cutting NOx them as green vehicles. The new generation of diesel carsalso known as 'clean diesels'-maintains the classic diesel emissions by over 60% and raising engine combustion efficiency to enhance fuel economy. In July 2012, we released advantage of high fuel economy but generates significantly less exhaust than their predecessors. Kia Motors' U2 diesel the LP EGR-equipped Sorento R (Sorento) which meets Euroengine for city cars and R and S2 diesel engines for RVs VI standards, and we plan to expand the application of EGR to employ common rail direct injection (CRDi) technology, which Sportage R (Sportage) and other models.

## DIESEL



involves precision, high-pressure fuel injection via an electronic control system. Vehicles powered by these diesel engines have 20-30% higher fuel economy and around 20% lower CO2 emissions than their gasoline counterparts. Drawing on our accumulated technological competencies, we are focusing our R&D efforts on developing a diesel engine for mid-sized sedans.

## LIGHTWEIGHT

In 2012, we instituted a plan to expand the application of ultra-high-strength steel to over 50% of our mid-size lineup (currently, 20%) by 2015 and reduce vehicle weight by over 10 kg.



## **Driving Performance: Limiting Resistance & Idle Revolution**

Air resistance and surface friction raise a vehicle's fuel consumption. Kia Motors applies aerodynamic designs, controls the amount and direction of air inflow, and uses tires with low rolling resistance. Lowering drag resistance by 10% increases fuel economy by 2%, while reducing the tires' rolling resistance results in a 1.5% fuel economy enhancement. The 2012 K3 (Forte/Cerato) boasts a drag resistance of only 0.27 cd thanks to its streamlined design and undercover and wheel deflector optimized for smooth air flow. It also features ultra low-rolling resistance tires with 10% lower rolling resistance than the tires on the previous model.

## **()**

Drag coefficient: Measure of an object's air resistance on a scale of 0 to 1. A figure closer to 0 means lower resistance. Most passenger cars and RVs have drag resistance of around 0.3 and 0.35, respectively.

## Transmissions: Multi-stepping & CVT

The transmission, which delivers the force generated by the engine to the wheels, plays an important role in determining fuel economy. The more gears there are, the better optimized a vehicle becomes for more specific driving conditions. This, in turn, raises not only fuel economy but also enhances acceleration performance and driving experience. While a gear-free continuously variable transmission (CVT) results in a decline in transmission performance and driving experience, CVT boasts higher fuel economy and allows for smoother transitions between gears.

Kia Motors completed the development of our own CVT in 2012. We are selectively applying multi-step transmissions and CVTs in consideration of their respective advantages and drawbacks. We are using the CVT for city cars and subcompacts whose foremost consideration is fuel economy. We applied the Kappa CVT developed in 2012 to the Morning (Picanto) and Ray, thereby enhancing fuel economy by around 7-8% from that of the previous models.

## Vehicle Body: Going Lightweight

A lighter car travels farther than a heavier one with the same amount of power. That is, the lighter the vehicle body is, the greater the fuel economy becomes. A 10% reduction in weight results in a 3.2% fuel economy enhancement, 8.5% boost in acceleration performance, and 3.2% decrease in  $CO_2$  emissions. Kia Motors is working on a mid- to longterm roadmap for vehicle body weight reduction through collaborative research among our materials, powertrain, and vehicle research departments. We are thus making continued and diverse efforts to go lightweight, applying lighter yet durable materials, developing new fabrication methods, and optimizing component structures.

In 2012, we instituted a plan to expand the application of ultra-high-strength steel to over 50% of our mid-size lineup (currently, 20%) by 2015 and reduce vehicle weight by over 10 kg. While regular automotive steel can withstand a force of around 35 kg (tensile strength), ultra-high strength steel can bear over 60 kg. Ultra-high strength steel is twice as strong but 10% lighter than regular steel, so increasing its share of the vehicle body makes the vehicle lighter but over 20% more durable. To this end, there are two key tasks to be undertaken: increasing the formability of ultra-high strength steel, whose cosmetic alterations are difficult due to its firmness, and increasing its tensile strength while reducing weight using the hot stamping method to quickly cool the steel after processing it at high temperatures. Kia Motors and a Hyundai Motor Group subsidiary specializing in steel production have set a common goal of reducing vehicle body weight and are cooperating on that front.



Idle Stop & Go (ISG) is an idle-revolution control system that automatically shuts down the engine when the car comes to a stop and restarts the engine when the car begins to move. ISG is especially effective for stop-and-go city driving, raising fuel economy by around 10%. Kia Motors has been applying manual transmission ISG in cee'd and Venga—our flagship models in Europe—as well as in Morning (Picanto) and Sportage R (Sportage). For the Korean market, automatic transmission ISG or CVT ISG can be found in Morning (Picanto), Ray, Pride (Rio), Soul, K3 (Forte/Cerato), and K5 (Optima).

## AERODYNAMIC DESIGN

Lowering drag resistance by 10% increases the fuel economy by 2%, while reducing the tires' rolling resistance results in a 1.5% fuel economy enhancement.

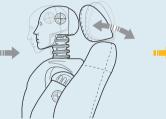


## **Smarter Vehicles for Greater Safety**

## Safety First

It is estimated that 50 million people around the world sustain injuries and 5 million lose their lives from motor vehicle accidents every year. Korea's traffic fatalities are twice that of the OECD average. Around 1 million motor accidents occur in Korea every year, and 70% of these accidents occur because drivers fail to observe safe driving habits. That is why it is important to take a multi-pronged approach to automotive safety. We install airbags and enhance the durability of the vehicle body to protect passengers. We apply technologies to safely control the vehicle and keep the driver alert and aware to prevent traffic accidents. We install systems to make driving less demanding and carry out campaigns to promote safe driving habits and pedestrian safety. Kia Motors enhances the safety of our products and contributes to the spread of motor safety awareness to make our roads safer.

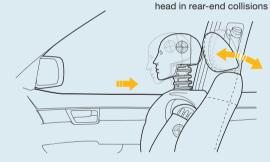




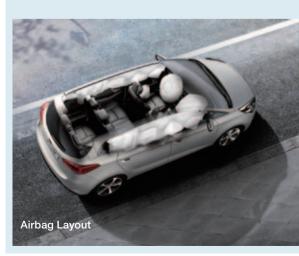


1. The active headrest

2. folds toward the occupant's



3. to prevent the neck from bending backward.



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## Crash Tests: Process & Results

High performance in crash tests is the foremost factor determining the safety of a vehicle. At the crash test laboratories of Kia Motors' Hwaseong Plant and Namyang R&D Center, we undertake tests for a wide range of motor accident scenarios. From the early phase of development, we create computer simulations to predict a vehicle's safety and raise passenger and pedestrian safety in collision situations. Around 100 crash tests of the actual vehicle are performed prior to its release as a new model. In a crash test, a vehicle with a test dummy inside is crashed into a wall. After the impact, researchers check the extent of the damage, including whether or not the doors can open and close as well as the state of the dummy and the fuel tank. The entire process is captured by high speed cameras attached to either ends of the wall. We then analyze this footage along with the impact data collected by the 80 sensors on the dummy. We take into

consideration occupants' possible responses upon impact as well their weight, height, and other physical traits. We focus especially on women and children as they are more susceptible to severe injuries than men. The results of these detailed and specialized crash tests are then applied to our vehicles.

Every year, Kia Motors releases new or updated models with strengthened safety features that we subject to outside assessments for verification. Soul, Sportage R (Sportage), and Sorento R (Sorento) passed four safety tests and were named 2012 Top Safety Picks by the U.S. Insurance Institute for Highway Safety (IIHS). K5 (Optima) was designated as a Top Safety Pick-Plus by also passing the fifth test that simulates collision situations with a tree and a telephone pole and that applies standards tougher than U.S. government standards. Meanwhile, Ray, Pride (Rio), and K9 (Kia Quoris) were classified as first-grade safety vehicles by K-NCAP (Korea), which is comprised of five crash test categories. In the meantime, new cee'd was put in the highest rating class in Euro NCAP, which consists of four assessment categories: adult passenger safety, child passenger safety, pedestrian safety, and safety features.

## Airbags

The airbag is one of the most basic automotive safety features. Front airbags protect the driver and front-seat passenger in headon collisions while the side and curtain airbags minimize injuries in side-impact collisions. The curtain airbags wrap over the sides of the windows, protecting the occupants' heads in side-impact collisions and rollovers. Occupant safety in collisions is higher when there is a greater distance between the occupant and the body of the car, so airbags are especially important in smaller cars. All new Kia releases since 2011 have six or more airbags as a standard feature. K7 (Cadenza) is equipped with eight airbags while K9 (Kia Quoris), released in 2012, has nine airbags, including a knee airbag for the driver.

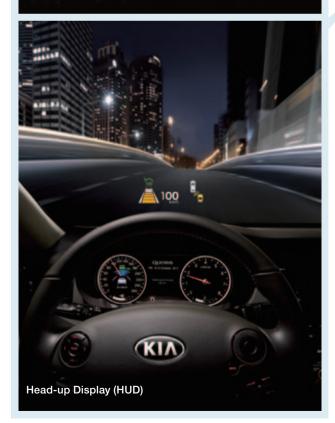
## **Smarter Safety Technologies**

Along with strong vehicle bodies and airbags, advanced safety technologies for motor accident prevention are making cars smarter and safer. Kia Motors develops and applies technologies to our production vehicles so that drivers can focus solely on the road and avoid motor accidents even if they are not experienced drivers. Cars now self-diagnose against hazards and automatically apply safety measures. The following is an introduction to Kia Motors' progress in automotive safety through the diverse safety features found in K9 (Kia Quoris).





Advanced Vehicle Safety Management (AVSM)



## Advanced Vehicle Safety Management (AVSM)

AVSM is a safety system that detects hazards and controls the vehicle accordingly. The embedded radar monitors the road situation. When collision risk is detected, the driver is alerted and the system automatically reduces vehicle speed and retracts the seatbelts for occupant safety. When the vehicle shakes as it negotiates a sharp curve, the electronic steering mechanism is automatically activated to readjust the vehicle to a safe, upright position.

## Head-up Display (HUD)

HUD projects key dashboard data onto the windshield so that the driver does not have to look away from the road to check current speed, alerts and warnings, GPS navigation data, rear and side hazard alerts, and Advanced Smart Cruise Control (ASCC) and Lane Departure Warning System (LDWS) information. ASCC is a radarbased system that automatically brings the car to a stop or returns it to cruise-control mode depending on where the car in front is positioned. LDWS alerts the driver when the vehicle veers off or changes lanes without the turn signal on.

## Blind Spot Assist (BSA)

BSA calls the driver's attention to potential hazards in blind spots. A radar sensor system detects vehicles approaching at high speeds to the rear and side blind spots. When risk is first detected, the warning lamps on the rearview mirror and HUD are activated. When a collision is anticipated, audible alert signals are activated and the seat starts to vibrate. The Around View Monitoring (AVM) system, which comes with the BSA system, can be activated when the vehicle is traveling at 20 km/h or less, providing a 360-degree all-around view in eight different viewing modes from videos captured from the four cameras installed on the vehicle's exterior.

## **UVO Telematics System**

Telematics is a combination of the words *telecommunications* and *informatics*, and its automotive application brings together cars and wireless communication for automotive IT services. UVO is linked to the GPS navigation system, driver's smart phone, and UVO





## e

Visit the S.L.O.W. website for more details on Kia Motors' child motor safety campaign.



The School Zone Safety Campaign (S.L.O.W.), launched in 2005, was expanded in 2010 into a child motor safety campaign. Some 33.3% of child traffic fatalities occur when children are crossing the road, and running is to blame for 81% of child motor accidents. Kia Motors runs education programs, holds poster contests, and produces and distributes ads and manuals for heightened motor safety awareness among children. In 2012, we entered into a service agreement with SAFIA and expanded our child motor safety efforts to all primary schools in Gwangmyeong. In addition to educational programs, we also offer a safety consulting service wherein safety experts identify hazards and risk factors around schools and work with local governments to make improvements or apply corrective measures. In 2013, we plan to institute the program in the cities of Hwaseong and Gwangju, where our production facilities are located, and gradually expand the program to other areas thereafter. In 2011, the scholarship program for children who have lost their parents in motor accidents went into full-fledged implementation. As agreed upon between Kia Motors and the Kia Motors Labor Union, 5 billion won in scholarships will be extended over a ten-year period (2012-2021) to low-income households with children of motor accident victims. Since 2009, we have also been running the Kids Auto Park in the Seoul Children's Grand Park. Kids Auto Park is an experiential motor safety learning center featuring a simulation center and driving and pedestrian learning centers. Children learn about traffic and everyday safety from a fun puppet show, put themselves in the driver's seat of specially designed cars, and practice pedestrian safety tips in simulated environments.

Center for remote vehicle control and assistance. Through UVO, the driver can start the engine, turn on the heater, or check where the vehicle is parked via his/her smart phone. The UVO Center offers road direction, remote diagnostic, and maintenance alert services. Moreover, when airbags are deployed in an accident situation, the UVO Center is automatically alerted and dispatches emergency road-side assistance.

## Adaptive Front Lighting System (AFLS)

AFLS adjusts the headlamps left-right and up-down according to vehicle speed, angle of the steering wheel, tilt of the vehicle body, and road conditions to secure a greater field of vision for the driver. High Beam Assist (HBA), in the meantime, dims the headlamps when a vehicle approaches from the front to prevent the headlamps from blinding the driver in the approaching vehicle.



## **Motor Safety Campaigns**

## **Green Lineup**

Kia Motors boasts a full lineup of passenger cars, RVs, and commercial vehicles whose eco-friendliness and safety are verified through domestic and international assessments.

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Fuel economy and CO2 emissions are based on the Ministry of Knowledge Economy's New Energy Efficiency Standards while for European models, only CO<sub>2</sub> emissions are indicated as per local market standards

Composite fuel economy: 13.4 km/l (City: 12.1 km/l, Highway: 15.5 km/l) Composite CO2 emissions 148 g/km (R2.0 diesel 2WD A/T) Received European certifications (LCA, DfE) and Korea's Carbon Footprint Labeling Named IIHS 'Top Safety Pick' in 2012



CO2 emissions: 97 g/km Energy efficiency grade: A+ (1.6 DIESEL 2wd M/T) 2012 cee'd, Kia's localized European model, received LCA and DfE certifications and Euro NCAP's top rating

Visit the Kia Motors officia website (www.kia.com/ worldwide) and the Kia Motors Deutschland website (www.kia. com/de) for more on the fuel economy and CO2 emissions of individual Kia vehicles.



Green-certified models are based on accumulated performance/findings. Safetycertified models are based on 2012 performance/findings.

## K5 (Optima) Hybrid 🖙 😁

Composite fuel economy: 16.8 km/l (City: 16.2 km/l, Highway: 17.5 km/l)

Composite CO<sub>2</sub> emissions: 100 g/km

## (2.0 HEV)

ceed

Certified 'Low-emissions Product' in 2012 with 27% lower CO<sub>2</sub> emissions compared to gasoline counterpart

## Sportage R < LCA < CO2 < EUTO (115)

Composite fuel economy: 14.4 km/l (City: 12.9 km/l, Highway: 16.7 km/l) Composite CO<sub>2</sub> emissions: 137 g/km (R2.0 diesel 2WD A/T) LCA-certified in Europe and the United States in 2012 Released model with 60% lower NOx emissions, which meets Euro-VI standards set to go into effect in 2014



## Highway: 15.1 km/l) Composite CO2 emissions: 147 g/km (Nu 2.0 A/T)

LCA-certified not only in Europe but also in the United States (2012) Passed strengthened IIHS safety test and named 'Top Safety Pick-Plus'

LINEUP

LCA (Life Cycle Assessment) evaluates a product's potential environmental impact throughout its life cycle, from production and use to disposal. LCA has been adopted as an ISO 14040s standard, and Kia Motors received our LCA assessment from Germany's TÜV NORD and the United States' Underwriters Laboratories (UL). (Related information: pp. 44-45)



DfE (Design for Environment) is an international standard (ISO 14062) used to verify the environmental friendliness of a product's design. (Related information: pp. 44-45)

Carbon Footprint Labeling is a Korean certification program based on CO<sub>2</sub> emissions from all stages of a product's life cycle. Products that have further reduced CO2 emissions or whose CO2 emissions are lower than the average emissions of the relevant product segment are given the 'Low-emissions Product' certification. (Related information: pp. 44-45)

Euro is an EU emission standard. Euro-V is currently in effect, and Euro-VI, with more rigorous restrictions, will go into effect in 2014. (Related information: p. 59)

IIHS (Insurance Institute for Highway Safety) conducts crash tests / of newly released vehicles and publishes the findings. A vehicle that passes four crash test assessments is named a 'Top Safety Pick.' As of 2012, a vehicle that passes the newly-adopted fifth test is given the 'Top Safety Pick-Plus' rating. (Related information: p. 63)

NCAP (New Car Assessment Program) evaluates the safety performance of new vehicles through crash tests. The Korean version is K-NCAP, while in Europe, there is Euro NCAP. A five-star rating is the highest assessment grade. (Related information: p. 63)



Composite fuel economy: 11.9 km/l (City: 10.2 km/l,



Composite fuel economy 15.2 km/l (City: 14.3 km/l, Highway: 16.6 km/l) Composite CO₂ emissions 112 g/km (1.0 A/T)



Pride (Rio)



Composite fuel economy 14.0 km/l (City: 12.6 km/l, Highway: 16.2 km/l) Composite CO<sub>2</sub> emissions 123 g/km (1.6 GDI A/T)



## Forte (Cerato) Koup

Composite fuel economy 13.0 km/l (City: 11.7 km/l, Highway: 15.0 km/l) Composite CO<sub>2</sub> emissions 134 g/km (1.6 GDI A/T)



## K3 (Forte/Cerato)

Composite fuel economy 14.0 km/l (City: 12.7 km/l, Highway: 16.1 km/l) Composite CO₂ emissions 122 g/km (1.6 GDI ISG A/T)



**CO**<sub>2</sub> emissions 140 g/km (1.4 M/T)



## Forte (Cerato) Hatchback

Composite fuel economy 13.0 km/l (City: 11.7 km/l, Highway: 15.0 km/l) Composite CO<sub>2</sub> emissions 133 g/km (1.6 GDI A/T)



## Forte LPi Hybrid

Composite fuel economy 14.0 km/l (City: 12.8 km/l, Highway: 15.9 km/l) Composite CO<sub>2</sub> emissions 93 g/km (1.6 LPi)



K7 (Cadenza)

Composite fuel economy 10.4 km/l (City: 8.7 km/l, Highway: 13.5 km/l) Composite CO₂ emissions 170 g/km (Based on 3.0 GDI A/T model)



## K9 (Kia Quoris)

Composite fuel economy 9.3 km/l (City: 7.8 km/l, Highway: 12.0 km/l) Composite CO<sub>2</sub> emissions 192 g/km (3.8 GDI A/T)



## Soul

Composite fuel economy 12.3 km/l (City: 11.2 km/l, Highway: 13.8 km/l) Composite CO<sub>2</sub> emissions 141 g/km (1.6 GDI ISG A/T)



## Carnival R (Carnival/Sedona)

Composite fuel economy 10.9 km/l (City: 9.7 km/l, Highway: 12.9 km/l) Composite CO₂ emissions 185 g/km (R2.2 diesel A/T)



New Granbird













## Ray

Composite fuel economy 13.5 km/l (City: 12.9 km/l, Highway: 14.4 km/l) Composite CO<sub>2</sub> emissions 126 g/km (1.0 A/T)



## Carens (Rondo)

Composite fuel economy 13.2 km/l (City: 12.1 km/l, Highway: 14.9 km/l) Composite CO₂ emissions 150 g/km (1.7 diesel A/T)



## Mohave

Composite fuel economy 10.7 km/l (City: 9.5 km/l, Highway: 12.7 km/l) Composite CO₂ emissions 189 g/km (3.0 diesel 2WD A/T)



## Bongo (K Series Truck)

Composite fuel economy 10.0 km/l (City: 9.9 km/l, Highway: 10.2 km/l) Composite CO₂ emissions 201 g/km (2.5 2WD M/T standard 1.0 ton cab) M

## **Sustainability Management**

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#### **UN Global Compact**

Kia Motors is committed to upholding the principles of human rights, labor, environment, and anti-corruption of the UN Global Compact (UNGC), which we joined in July 2008. Our progress and commitment are detailed in the pages listed in the table below. We also designated CSR management as a core strategy for Kia Motors' mutual growth with society at large and set specific tasks based on the ten UNGC principles.

# UNGC Index —

on do maox		
Area	Ten Principles	Relevant Page(s)
Human Rights ——	Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights; and ——	34-41, 75-79
	Principle 2: make sure they are not complicit in human rights abuses.	34-41, 75-79
Labor ———	Principle 3: Businesses should uphold the freedom of association and the effective recognition of	34-36, 75-77
	the right to collective bargaining;	
	Principle 4: the elimination of all forms of forced and compulsory labour;	77
	Principle 5: the effective abolition of child labour; and	77
	Principle 6: the elimination of discrimination in respect of employment and occupation.	36-37, 75-77
Environment ——	Principle 7: Businesses are asked to support a precautionary approach to environmental challenges;	43, 85
	Principle 8: undertake initiatives to promote greater environmental responsibility; and	43-50, 80-89
	Principle 9: encourage the development and diffusion of environmentally friendly technologies.	51-61
Anti-corruption	Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.	78-79

#### Membership to Associations & Organizations -

Association/Organization
Federation of Korean Industries (FKI)
Korea Automobile Manufacturers Association (KAMA)
Korea Chamber of Commerce & Industry
(Seoul, Gwangmyeong, Hwaseong, Gwangju)
Korea Auto Industries Coop. Association (KAICA)
Korea Management Association (KMA)
Fair Competition Federation (KFCF)
BEST Forum: Business Ethics and Sustainability
management for Top performance
Global Compact Network Korea
The Korean Association for Industrial Security (kaitS)
Korea Economic Research Institute (KERI)

## Sustainable Society & Kia Motors' CSR Indicators

A sustainable society Kia Motors envisions is one in which there are balanced discussions on social responsibility in all sectors of society as well as shared efforts to raise the level of responsibility in a fair and practical manner. Kia Motors is especially aware of the responsibilities a business has toward society and believes that stakeholder interest and participation help us fulfill these responsibilities. The greatest task at hand for businesses and other organizations prescribing to the principles of CSR is moving beyond a passive commitment to ISO 26000 (international CSR standard) or merely using it as a PR tool and embrace it as a means of not only improving the respective businesses and organizations but also contributing to sustainable development and social welfare. In 2011, Kia Motors developed our own CSR indicators based on the seven core subjects of ISO 26000. Drawing on the progress we have made thus far, we are promoting enterprise-wide CSR initiatives. We also made CSR involvement a key performance indicator to heighten employee awareness and encourage participation.

Purpose of Membership
exchange information on management activities; cooperate on CSR activities
Promote the auto industry; pursue intersectoral joint projects (serve as KAMA president)
Andatory membership as per the Chamber of Commerce & Industry Act
Cooperate with relevant businesses to advance the auto industry
cquire business information
hare information and opinions with government and businesses to observe fair trade regulations
ingage in ethical management and CSR work exchanges
Jphold the 10 UNGC principles
Promote efforts aimed at protecting industrial technologies
Conduct comprehensive research on long- and short-term development issues pertaining to Korean —
usinesses and economy

## Economy

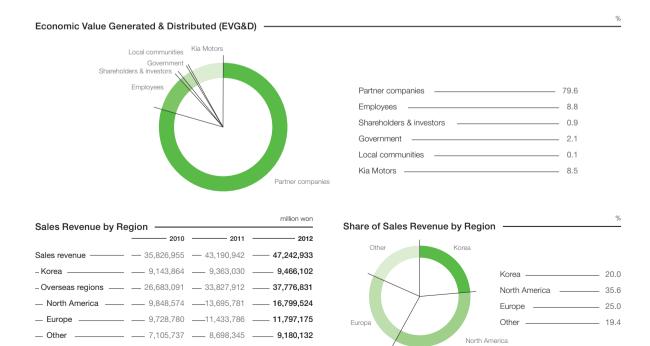
· As of the 2011 fiscal year, consolidated financial statements for corporate headquarters and overseas subsidiaries were drafted as per the International Financial Reporting Standards (IFRS).

Business Performance			million won
Business renormance			2012
Production volume $\ensuremath{(vehicles)}\xspace$ –	2,138,802	2,542,181	2,723,915
Sales Volume (vehicles)	2,129,948	2,538,020	2,719,500
Sales revenue	— 35,826,955	43,190,942	47,242,933
Operating profit	2,490,028	3,499,088	3,522,251
Cash flow	5,272,537	4,745,189	4,345,425
Ordinary income	3,323,047	4,721,650	5,164,056
Net profit	2,698,330	3,519,236	3,864,704

Financial Standing -		million won
i mancial standing	2010 2011	2012
Assets	— — 26,275,144 — 30,255,179	
Current assets	— — 9,763,671 — 11,075,187	11,139,430
Fixed assets	— — 16,511,473 — 19,179,992	21,258,884
Liabilities	— — 16,027,027 — 16,745,469	
Current liabilities	— — 11,627,539 — 11,421,924	10,000,239
Fixed liabilities	4,399,488 5,323,545	5,550,013
Equity	— — 10,248,117 — 13,509,710	16,848,062
Equity ratio (capital/assets)	39.00% 44.65%	52.00%
Debt ratio (liabilities/capital)	156.39% 123.95%	92.30%

Value Distributed to Stakeholders				
	down			2012
Total value generated		36,154,980	43,636,261	47,999,794
- Sales revenue		35,826,955	43,190,942	47,242,933
- Other income Other income	e-(other costs+depreciation costs)	328,025	445,319	756,861
Partner companies Product & se	rvice costs	29,184,591	34,935,073	38,197,219
Value-added generated —		6,970,389	8,701,188	9,802,575
— Employees ——— Wages and b	enefits	3,335,577	3,764,447	4,245,509
- Shareholders - Dividends -		198,738	242,167	263,240
- Investors Interest costs	3 ·	289,752	192,494	156,808
— Government — Tax payment	s (corporate tax+other taxes)	296,639	561,682	1,022,822
- Local communities Donations		13,485	21,063	22,092
— Kia Motors — Retained value	ie	2,836,198	3,919,335	4,092,104

• Other income = (Other operating income+income from investment in affiliated companies+financial income) - Other costs (other operating costs+financial costs minus interest costs and donations) - Depreciation costs (depreciation cost+depreciation cost of intangible assets)



Production Volume by Worksite		vehic		
			2012	
Soha	247,659	258,087	304,056	
Hwaseong	547,894	584,407	553,137	
Gwangju	411,285	488,032	443,389	
OEM	209,928	253,136	285,183	
Georgia (USA)	153,665	273,751	358,520	
Slovakia	229,505	252,252	292,050	
China	338,866	432,516	487,580	
Total	2,138,802	2,542,181	2,723,915	

Share of Production Volume by Worksite







#### Share of Sales by Vehicle Type -

## **Society / Customers**

# **Society / Employees**

#### **Customer Satisfaction Assessments**

KSQI 'Excellent Call Center' Nine Years Running Call Center KSQI, overseen by the Korea Management Association. rates 203 domestic call centers in 33 industries in 16 categories, including accessibility, attitude, and professionalism. The Kia Customer Service Center designated 2012 as the year of 'Smart Customer Service Center' and strove to make our service improvements palpable to customers. The CEO and executives from Corporate Headquarters took part in the Voice of Customers Experiential Training program, listening to customer feedback and sharing their commitment to quality customer service with the rest of the staff. We have in place a 3-step follow system for expedited handling and prevention of customer grievances, and plan to set up a new customer service system to further strengthen our customer-oriented services.

No. 1 in KS-SQI Nine Years Running Our continuous customer service improvements have been recognized by the Korean Standards Association, having maintained the number one position in the Korea Standard-Quality Index (KS-SQI) for nine consecutive years. In 2012, we further enhanced customer convenience with the launch of SMART Q, a vehicle repair and maintenance service accessible via smart phone or telematics. We also run the Smart Consulting Center, which is linked to a network of around 800 service centers nationwide. The center provides real-time maintenance and repair consultation as well as emergency dispatch services.

Internal & External Customer Satisfaction Surveys In 2012, Kia Motors came in first place in the city car, subcompact car, and mid- and full-sized car segments of the Korean Productivity Center's National Customer Service Index (NCSI). We were also the first in the industry to receive the Customer-Centered Management certification from the Fair Trade Commission. We review our annual progress through customer service index (CSI) surveys commissioned to an outside agency. We also run a mystery shopper program to identify issues at our sales and service centers from the customers' point of view. Every month, we survey customers who have just bought our vehicles (monthly avg. 3,013) and collect voice-of-customer feedback on the telephone service of all customer contact points. We analyze the feedback to identify areas for improvement, and the findings are relayed to the relevant departments for corrective measures.

#### **Customer Privacy Protection**

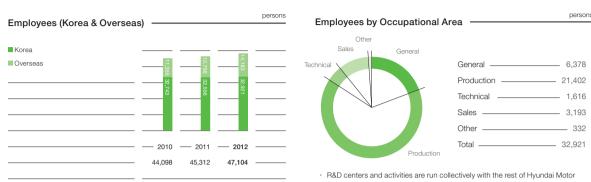
In 2011, Kia Motors established the Personal Information Protection Council to lay the necessary management foundation for customer privacy protection. The council's sector-specific subcommittees, each overseen by a chief privacy officer (CPO), went into full-fledged operation in 2012. The council reinforced the company's internal privacy management plan and set up contingency plans for personal information leaks. It is working on an integrated management system and regularly monitors privacy protection issues and progress. In 2012, we deleted around 830,000 potential customers' personal information files without consent forms and are setting up a system for regulatory compliance management. We also plan to complete a web-based personal information search solution in April 2013 and are working on an integrated monitoring system. Kia Motors did not receive any complaints or grievances for violating the duty to protect our customers' personal information in 2012.

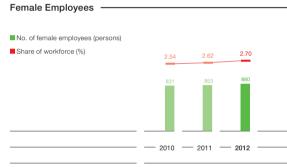
#### **Product Labeling**

All Kia Motors' product labels come with CO<sub>2</sub> emissions (g/km) and fuel economy data so that customers are well informed and can take CO<sub>2</sub> emissions and fuel economy into consideration in their purchasing decisions. As of January 2013, all newly released vehicles will come with a label indicating the weighted composite fuel economy (55% city fuel economy, 45% highway fuel economy) as per changes to fuel economy calculation standards.

#### **Customer Marketing Communication**

In carrying out diverse marketing events and other marketing communication activities, Kia Motors strives not to infringe upon customer privacy, apply double standards, or exercise undue influence on children. We also endeavor to conform to generally-accepted cultural and ethical norms. Kia Motors undertakes prior research and canvasses local opinions so that our marketing activities overseas conform to local sensibilities. Kia Motors did not violate any regulations or receive any fines in regards to our marketing communication activities in 2012.







Job Creation by Loca	al Area ——		persons	Retirement & Resign	ation ——		persons
	2010	2011	2012		2010	2011	2012
Corporate Headquarters			312	Corporate Headquarters			29
Soha	9	41		Soha	48	87	77
Hwaseong	23	115	39	Hwaseong	27	318	43
Gwangju	12	30	92	Gwangju	39	54	52
R&D centers				R&D centers		16	7
Other		39	55	Other		70	59
Total	180	328	598	Total	240	583	267

 With the exception of the total number of employees and data specific to overseas employees, all data pertains to Korean worksites (Corporate Headquarters/R&D centers/Sohari, Hwaseong, Gwangju Plants/ service centers) as of December 31, 2012.

> Group, so most B&D employees are classified as Hyundai Motor Group employees. R&D employees classified as Kia Motors employees are included under 'General'.



Other: Asia-Pacific (excluding China), Middle East, Africa

Wages			million won
	2010	2011	2012
Avg. period of continuous	16.5	17.3	17.8
service (year)			
Annual wage	2,846,650	2,971,414	3,179,579
Per-person wage	87.3	91.3	97.6
Entry-level wage	54.0	57.8	61.6

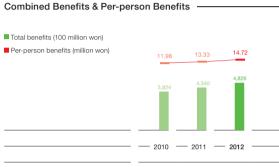
Wages includes retirement allowance. The average per-person wage for entry-level employees is 3.98 times higher than that of the legal minimum wage.

## **Society / Employees**

#### Benefits

Kia Motors provides the same benefits package to full-time and temporary (or part-time) employees. In addition to the legally mandated welfare benefits, we offer a wide range of other benefits in order to raise the quality and security of employees' lives and boost morale for labor-management trust building. In 2012, 71 employees took maternity leave, a legally stipulated benefit. We offer a mid-term severance payout program to assist with living costs and enhance convenience. In 2012, 12,305 employees took advantage of the program, and the combined total payout was 406.6 billion won. We also provided holiday transportation and holiday allowances of 52.2 billion won and 9.9 billion won, respectively.

Itemized Benefits	million won
	Amount
National Pension	67,114
National Health Insurance	93,199
Industrial accident insurance	39,641
Employment insurance	36,167
Long-term group accident insurance	1,102
Assistance & convenience measures	—— 177,815
Other	67,583
Total	482,620



Other: Safety/health/hygiene: 30,140 million won, Culture/recreation: 3,210 million won, Incentives: 27,260 million won, Other: 6,973 million won

#### 2012 Education & Training

With our mid- to long-term global HR development strategy as the basis, Kia Motors developed and implemented a new HR development system in 2011. The system is comprised of the Leadership Curriculum, Professional Curriculum, Value Curriculum, and Global Curriculum. The Leadership Curriculum is made up of a program to enhance leadership skills at each position level and a program for leadership position candidates to prepare themselves for their new role and responsibilities. The Professional Curriculum is comprised of a program to enhance work expertise by job area and the InnoBiz School program for heads of teams to hone problem-solving skills. The Value Curriculum is designed for employees who have just received promotions to reinforce executive competencies as regards the company's core values. The Global Curriculum is made up of programs for the internalization of the company's core values, developing global leaders, embracing cultural diversity, and boosting global communication skills. To effectively assist overseas offices in their efforts to develop local talent, part of the common global education and training program is offered online. We have also expanded language training for employees in Korea. Kia Motors strives to provide systematic and tailored human resources development programs (HRDs).

Education/Training					
	2010	2011	2012		
Total education/training expenditure (100 million won)	99	150	182		
Per-person education/training expenditure (10,000 won)	30	46	55		
Per-person education/training hours	41	42	40		

#### **Protection of Employee Human Rights**

Kia Motors strives to protect employees' basic human rights. We run a grievance processing system via the company intranet for convenient tracking of the progress and outcomes. We hold a semi-annual sexual harassment class for the entire workforce on relevant laws and company regulations. The Sexual Harassment Counseling Center within the Employee Counseling Center works to prevent and resolve sexual harassment incidents at the workplace. The Committee for Female Employee Counseling is also dedicated to resolving problems and challenges unique to female employees.

#### Ban on Child Labor & Forced Labor

Kia Motors only hires employees aged 18 and above as stipulated in the company's employment regulations. As per Article 65 of the Collective Agreement, Kia Motors does not force employees to take holidays or work overtime nor do we unfairly treat our employees for not taking holidays or not working overtime.

## **Society / Employees**

#### Announcement of Management Changes

Article 17 of the Collective Agreement provides that Kia Motors must announce management changes in writing. Changes requiring disclosure include changes to the company name or the articles of association; revisions to, enactment of, or annulment of employment and human resource policies and other company regulations that affect the condition or status of employees; appointment, dismissal, or change in position or status of executives; business performance; and the decisions of the Board of Directors. We also disclose our business performance (monthly/quarterly/every two quarters) to the labor union to strengthen mutual understanding and cooperation.

#### **Industrial Accident Prevention & Response**

Kia Motors' foremost priority is the prevention of industrial accidents to ensure the safety, health, and welfare of our employees as stipulated in Article 78 of the Collective Agreement. Every plant has an Industrial Safety and Health Committee composed of seven representatives each from labor and management to promote a safe and pleasant work environment. In the meantime, the Comprehensive Industrial Safety and Health Committee, comprised of one labor representative and one management representative from each plant, decides on major health and safety issues based on labor-management consultation. Kia Motors also has in place industrial health and safety systems at our worksites (Soha and Gwangju Plants: KOSHA18001-certified; Hwaseong Plant: OHSAS18001- & KOSHA18001-certified) for the systematic and effective prevention of industrial accidents. Production managers and musculoskeletal specialists in charge of employee safety and health receive regular training. Every three years, worksite inspections are undertaken to identify and improve work processes that may cause musculoskeletal disorders. We consult with medical specialists to rearrange and improve the work environment. We also operate programs to prevent hearing loss from worksite noises and respiratory damage from hazardous airborne substances. In accordance with the Industrial Health and Safety Act, we require regular, special, random, and pre-employment health checkups. We also provide customized rehabilitation care for employees returning to the workplace after receiving treatment for injuries sustained in industrial accidents.

#### Industrial Accidents & Leave

At Kia Motors' domestic worksites (including Corporate Headquarters, sales offices, and service centers), there were 463 industrial accidents in 2012, 1 fewer than in 2011. A total of 61,244 days of leave resulted from the industrial accidents, 3,762 days fewer than in 2011. Kia Motors is enrolled in a group insurance plan that provides employees with medical expenses for injuries sustained from accidents in non-working situations. We have in place a system to manage follow-up measures taken after health examinations. When we reorganize production lines, we install equipment and machinery designed to prevent musculoskeletal disorders.

There was a mistake in the tabulation of 2011 figures regarding industrial accidents and leave. The corrected figures are as follows: 464 industrial accidents and 65,006 days of leave.

Industrial Accident Rate	
Kia Motors	-
Manufacturing industry average	 
Transport machinery & equipment industry average	 

Industrial accidents are tabulated by industry for the relevant reporting period based on data analyzed by the Korea Occupational Safety and Health Agency (KOSHA). Data on 2012 averages not yet compiled for general manufacturing and transport machinery & equipment industries will be reported next year.

Industrial accident rate = Total no. of industrial accident victims / Total no. of employees x 100 (as of Dec. 31, 2012)

#### System for Environment, Safety, & Health

Kia Motors developed the Integrated System on the Environment, Safety, and Health (i-ESH) for the effective management of information, work processes, and inspections related to the environment, safety, and health at our worksites. Employees can use i-EHS to access relevant information and reference materials. The Kia Safety Academy (KSA) offers courses on the legal aspects of worksite health and safety as well as a program designed to foster internal health and safety inspectors.

%		
2012	2011	2010
1.42	1.42	1.67
(Unavailable)	0.97	1.07
(Unavailable)	1.00	1.23

## **Society / Partner Companies**

# Society / Partner Companies-Local Communities

Support & Assistance through the Founda	tion for	Payments for Goods & Services -		
Korea Parts Industry Promotion			Payment Method	Payment Cycle
	Beneficiaries	Parts for domestic use - Small & medium partners	Cash	Weekly
Technical assistance (Quality/ Technology Volunteer Corps)	<ul> <li>— 111 companies</li> </ul>	Large partners	e-promissory note	Weekly
Business management instruction (Partner Support Corps)	44 companies		(60 days)	
Level-up education for secondary partners	302 companies	Parts for export	Cash	Monthly
Academic seminars	25 times		0ash	Working
Bulk Buying by Year				100 million won
Large Partners 2010		Small & Medium Partners 2010	2011	2012
·	- 800 <b>1,036</b>	Amount 1,036	1,166	1,849

Key Education Programs for Partner Companies (including overseas plants, 155,863 partner company employees)				
		Program Details		
Manager/staff programs	Quality education	Quality seminars & education for quality enhancement of parts		
		- 158 courses / 41,918 persons		
	Job training	Job performance enhancement & assistance education		
		- 186 courses / 85,048 persons		
	Values & vision education	Transparency/ethics education		
		- 26 courses / 28,897 persons		

#### **Anti-corruption Programs**

Kia Motors enacted the Code of Ethics and Regulation of Workplace Ethics in 2001 and has been working to promote employee compliance. We conduct classes on the Fair Trade Act to raise enterprise-wide awareness of ethical management. We adopted the fair competition Compliance Program (CP) in 2002 for the proper implementation and oversight of ethical management practices. CP is an internal corporate regulatory system designed to ensure voluntary compliance with fair competition regulations. With full and unwavering support from upper management, Kia Motors has in place the Voluntary Compliance Council comprised of executives and key departments heads. The Board of Directors receives regular reports on CP-related progress. CP operational regulations are part of Kia Motors' official work standards. Through regular internal oversight and education, we strive to do away with unfair business practices and promote a culture of fair competition.

The CEO's message of commitment to voluntary compliance was delivered eight times in 2012 via the company groupware. We also shared relevant news on fair competition on the intranet voluntary compliance board and reinforced the internal oversight system, carrying out CP education and training for 71 pertinent departments and inspecting 42 pertinent departments. To encourage voluntary participation and initiative, we awarded departments with exemplary voluntary compliance performance. We also expanded the company fair competition education program for the employees of sales and procurement departments and provided a wide range of outside education and training opportunities on latest fair competition trends applicable to everyday business operations.

Based on these efforts, Kia Motors' CP received an A-rating from the Korea Fair Trade Commission (KFTC) in 2009 and 2011 and an AA-rating in 2012. The 2012 AA-rating is not only a means of sharing our progress on voluntary compliance with outside stakeholders and the public but also comes with the benefit of a 15% reduction in fines and a 1.5-year waiver on misfeasance investigations. In 2012, Kia Motors was cleared of all charges in one case involving contractual terms and conditions and in four general complaint cases. Employees found guilty by the Cyber Audit Office and other internal anti-corruption mechanisms were subjected to disciplinary action as per the severity of the offenses. Kia Motors will continue to undertake thorough preemptive and preventive measures to advance fair competition and ensure transparent work processes and business transactions.

Education on Fair Trade & Voluntary Compliance		
	Торіс	Date
In-house	– Fair Trade Act –	JanDec. (12 sess
(4,392 hours)		Feb
		May
		Oct
		Nov
	- Mutual growth	Feb
	Fair Franchise Transactions Act	Feb
	- Fair Subcontract Transactions Act	Mar., May, Jun. –
		Nov
	<ul> <li>Fair Labeling and Advertising Act</li> </ul>	May
	Cyber education for entry-levels with college	May —
	degree	Nov

	Organization	Topic
		10010
External (118 hours)	Seoul National University	Specialized Fair Trade Act re
	Korean Fair Competition Federation	Fair competition, education
		2012 CP rating and standar
		Disclosure regulation on larg
		Fair competition, education
		CP Forum
	Korea Fair Trade Commission	Fair competition, education
		International cartel prevention

CSR Expenditure				won
•	2010 -	2011	2012	Accumulated Total
Social welfare ———————————————————————	4,899,769,073 -	10,309,212,172	11,257,313,358	26,466,294,603
Medical care, public health	228,700,000	164,665,814	214,220,000	607,585,814
Education, schools, academic research — —	4,195,156,046 -	2,838,311,290	4,015,090,540	11,048,557,876
Arts, culture, sports	3,220,006,000 -	3,019,797,600	3,454,705,045	9,694,508,645
Environment	146,523,092 _	281,460,930	439,267,000	867,251,022
Emergency & disaster relief	859,000,000 -	1,142,000,000	730,000,000	2,731,000,000
International programs & activities	1,834,761,346 _	2,217,676,599	4,296,958,843	
Other	739,383,250 -	1,247,238,306	64,218,000	2,050,839,556
Total	16,123,298,807 _	21,220,362,711	24,471,772,786	61,815,434,304

Only expenditures qualifying as donations as per tax laws and expenditures for public campaigns and sponsorships of academic, arts and culture, and sporting events were tabulated (domestic worksites).

CSR Program Participation —————	
Soft Togram Farticipation	
Annual participation (persons)	
Total service hours	
Per-person service hours	

Annual participation and total service hours do not include global campaign participation and service hours. Per-person service hours are total number of service hours divided by total number of employees for each respective year.

	Target
sions) –	Guest speaker from KFTC, CP staff and execs
	Guest speaker Kim Won-jun (non-satdning director), Hyundai Motor Group staff and execs
	Guest speaker from KFTC's Cartel Investigation Bureau, members of Voluntary Compliance
	Council and 200 staff and execs
	Guest speaker, 79 members of Voluntary Compliance Council
	Regular in-house training, 150 domestic sales staff and execs
	200 team heads and managerial staff of Procurement Division
	86 team heads and execs of Customer Service Division
	680 Soha, Hwaseong, Gwangju plant managerial staff
	Information session on amendments to the Act, 304 staff and execs of Procurement Division
	140 managers of Domestic Sales Division branches
	151 persons
	90 persons

	Date & Target
	Date & larget
earch study program	MarJun., staff (1 person)
nd information session	Feb./Apr., CP officer
s, information and conference	Mar., CP officer
-scale insider trading and on status of business groups, training	Apr., staff (2 persons)
nd seminar	Oct./Nov., staff
	Nov., CP officer
nd information session	Mar./Jun./Oct., CP officer
, overseas local training	Oct., 5 staff and execs of U.S. office

2012	2011	2010
13,169	13,091	8,044
48,612	47,993	29,971
1.5	1.5	1.8

 Data pertains to three Korean worksites (Soha, Hwaseong, Gwangiu Plants), Refer to pp. 86-89 for more on environmental data for each domestic and overseas worksit Unit: Used as a basic unit as regards the materials or fuel needed to manufacture one vehicle. The lower the value is, the higher the productivity is. It is also used to calculate unit cost.

## **Environmental Targets & Performance**

Kia Motors sets targets for key indicators based on the core tasks of environmental management and monitors our performance.

2012 Performa	ince & 2013 Target	s ———		100% of target	■85% or higher of target	Lower than	85% of target
Category	Subcategory		Basis of Measure	- 2012			2013
				Target	-Performance (%)	- Result -	- Target (%)
Green growth	Energy (GHGs)	tCO2eq	Unit reduction from 2008 level —	20.0%	16.0	_	20.0
Green production -	Air —	- PM	Unit reduction from 2003 level —	- — 60.0% or higher	70.3	_	70.0
		- SOx		- — 20.0% or higher	17.5		20.0
		- NOx		- — 20.0% or higher	17.6		20.0
	Water	- BOD		- — 25.0% or higher	33.5	_	30.0
		- COD		- — 25.0% or higher	25.4	_	25.0
		- SS		- — 30.0% or higher	29.3		30.0
	Controlled chemicals -	- Usage		- — 15.0% or higher	10.1		15.0
Resource	Waste	- Recycled	Share of total waste generated —	- — 94.0% or higher	90.7		94.0
regeneration		- Taken to landfill –		0.8% or lower	0.9		0.8
	·	- Incinerated		5.2% or lower	8.4		5.2
	VOCs	- Emissions	Unit reduction from 2005 level —	- — 40.0% or higher	46.3	_	48.0
	·	- Thinner recovery -	Improvement from 2005 level	– _ 25.0% or higher	20.9		25.0

## **Raw Materials**

In 2012, Kia Motors used 226,000 tons of steel (not including partner companies' steel usage), a 10.6% increase and a 27.5% unit (based on the number of units produced; same applies to the figures that follow) decrease from the base year of 2003. While paint and thinner consumption grew 41.2% and 40.3%, respectively, compared to 2003, unit consumption dropped 7.5% and 8.0%, respectively. We track the usage of aluminum, sealer, deadener, and Wrap-Guard film under 'Other.' The total 2012 consumption under 'Other' was 57,000 tons, and 89% of it was aluminum consumption at the light alloy plant in Hwaseong. Leftover zinc-coated steel is sent to iron manufacturers while uncoated steel is recycled at the foundry in Gwangju. In 2012, 9,887 tons of steel were recycled. As for thinners, they are recovered and taken to recycling service providers.



· Other: Aluminum, sealer (adhesive), deadener (soundproof laminate), Wrap-Guard film, etc.

## Environment

## Waste Reduction & Recycling

The total amount of waste generated at the three domestic worksites (Soha, Hwaseong, Gwangju Plants) in 2012 was 230,000 tons, 90.7% (209,000 tons) of which was recycled to make cement and other materials while 8.4% (19,000 tons) was incinerated. While the total amount of recycled waste increased 2,000 tons given the increase in the amount of waste generated, the recycling rate dropped 2.6% from the previous year because of the limited processing capacity of recycling service providers. The amount of waste generated per vehicle decreased 23% to 177 kg in 2012 from the base year of 2003.



unit water consumption 25.8% from 2003 levels.

#### **Energy & Greenhouse Gases**

In 2006, Kia Motors became the first Korean business to undertake a third-party assurance of greenhouse gas (GHG) emissions of our service and production facilities and set up a GHG inventory for emissions management. In accordance with the Basic Law on Low Carbon Green Growth, which went into effect in 2011, GHG emissions and energy consumption (from 2007 onward) are calculated per regulatory standards and reported to the government. The total GHG emissions in 2012 of all domestic plants, service centers, sales offices, shipping offices, and training centers amounted to 834,337 tons, 98% (818,897 tons) of which came from Soha, Hwaseong, and Gwangju Plants. We have been getting third-party assurance of Scope 1, 2 GHG emissions of the Slovakia Plant and China Plants 1 & 2 since 2007. With the completion of the assurance of GHG emissions of the Georgia Plant (USA) in 2010, all our domestic and overseas worksites are now independently assured. The total GHG emissions of our overseas worksites in 2012 stood at 378,593 tons.

Curbing Energy Consumption & GHG Emissions Upon joining the Voluntary Agreement (VA) for Energy Conservation in 2000, Kia Motors has been steadfast in our efforts to cut energy consumption and GHG emissions, regularly reporting our progress to the Korea Energy Management Corporation (KEMCO). We also joined the Greenhouse Gas and Energy Target initiative in 2011, reporting our annual GHG emissions and energy consumption to the government and negotiating annual emissions caps. Our GHG emissions in 2012 amounted to 821,385 tCO<sub>2</sub>, outperforming the agreed-upon target of 871,366 tCO<sub>2</sub> by 6%. The 2012 emissions cap included emissions from the three domestic plants, Siheung Service Center, Apgujeong Office, and Nam-Suwon Office. The government will be readjusting the reporting scope as per new regulatory standards. The government-authorized 2013 emissions ceiling for Kia Motors is 895,000

Environment

tCO<sub>2</sub>. The government's mid- to long-term goals for the automotive industry include a 7.8% reduction of GHG emissions from BAU levels by 2020. To this end, Kia Motors set a 30% reduction from 2008 levels by 2020 as our own target. Kia Motors will continue with our efforts to meet both the government and self-set targets.

In 2012, we cut 11,125 tCO<sub>2</sub> of GHG emissions by carrying out 46 repair and improvement measures, including replacing old boilers, installing heat recovery systems, enhancing the efficiency of compressors, and adopting temperature control systems. We are doing away with unnecessary energy consumption at our worksites by turning on only alternating interior and exterior lights and minimizing the unnecessary operation of equipment and machinery. We have in place systems and practices to minimize greenhouse gas emissions from employee commutes and business trips. We operate shuttle buses, restrict parking pass issuance, and run a rotating parking system. We have also set up videoconferencing systems at all domestic and overseas worksites to encourage videoconferencing over business trips. Based on Korea's average CO<sub>2</sub> emissions (170 g/km, 2011, KEMCO) of a passenger car in Korea, getting from one worksite to another (avg. distance of 137 km) generates 23.3 kg of CO<sub>2</sub> emissions, the amount absorbed in a year by four 30-year-old pine trees. Because Kia Motors' worksites are scattered all over the globe, minimizing work-related trips, especially those involving plane travel, can greatly contribute to CO<sub>2</sub> emissions reduction efforts. Kia Motors will continue to promote videoconferencing and work to raise efficiency across the entire spectrum of our business operations, from manufacturing to office work.

For the systematic management of energy consumption, we are in the process of getting ISO 50001 (energy management systems) certifications for all our worksites. ISO 50001, which went into effect in June 2011, is an international standard on corporate energy conservation plans and implementation. Kia Motors' Gwangju Plant was certified in 2012, and we plan to get certification for our Soha and Hwaseong Plants as well. Thereafter, we plan to expand this effort to all our overseas worksites.

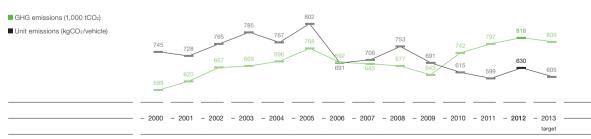


· BAU (Business As Usual): Expected increase in total and unit GHG emissions and energy consumption if no reduction measures are taken

Plants: Soha, Hwaseong, Gwangju Plants

Other: Corporate Headquarters, service centers, sales offices, shipping offices, Osan Training Center, Pyeongtaek Port

#### Unit GHG Emissions of Korean Worksites



Scope: Korean worksites (Soha, Hwaseong, Gwangiu Plants)

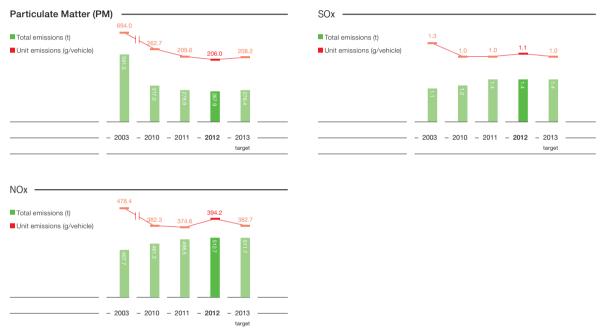
Tabulation standards: Scope 1, 2 emissions based on lower heating value (2000-2006) / Operating Guidelines on Greenhouse Gas, Energy Target Management System

[Notification No. 2011-29 of the Ministry of Environment] (2007-)

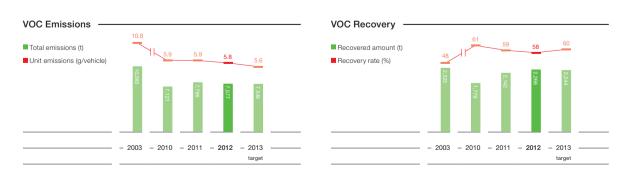
Unit emissions grew in 2012 due to a decline in production caused by enlargement/expansion of Korean plants.

#### **Environmental Pollutants**

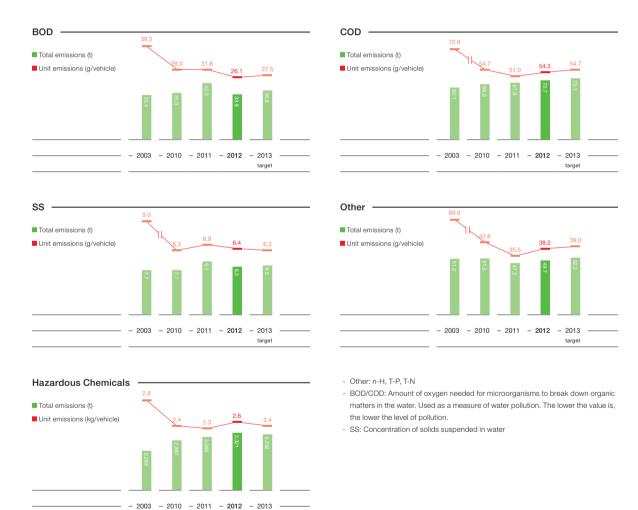
Atmospheric Pollutants In order to minimize atmospheric pollutants, Kia Motors has equipped all our worksites with particulate matter (PM) filtration systems. At the Soha and Hwaseong Plants, we installed tele-monitoring systems (TMS) for round-the-clock monitoring of boilers and other high-polluting systems to meet the total atmospheric emissions cap for metropolitan areas. In 2012, we installed multi cyclone equipment and made other improvements to the filtration systems at our foundries to reduce PM emissions. The total amount of atmospheric pollutants emitted in 2012 was 781.9 tons, similar to the previous year. However, unit emissions stood at 0.6 kg, a 49% reduction from the base year of 2003. SOx, NOx, and PM unit emissions in 2012 also decreased 17.5%, 17.6%, and 70.3%, respectively, from the base year of 2003.



Volatile Organic Compounds (VOCs) Kia Motors strives to minimize VOC use and emissions in our manufacturing processes as VOCs contribute to global warming, destroy the stratospheric ozone layer, and emit foul odors. In 2012, VOC emissions dropped 2.8% year-on-year to 7,577 tons while unit emissions were 5.8 kg/vehicle, similar to the previous year. The 58% recovery rate for organic solvents was similar to the 2012 rate. Kia Motors will continue to work toward curbing unit emissions and raising the recovery rate.



Water Pollutants & Hazardous Chemicals To minimize the use of chemicals harmful to human health and the environment, Kia Motors applies stringent monitoring and management standards throughout the entire vehicle life cycle. Kia Motors runs e-CMS, a self-developed database of the chemicals in the automotive parts of all vehicles produced since 2005. We also have in place an inspection system at every worksite to monitor and manage the use of hazardous chemicals. The unit emissions of BOD (biological oxygen demand), COD (chemical oxygen demand), and SS (suspended solids) in 2012 dropped 33.5%, 25.4%, and 29.3%, respectively, from 2003 levels. The total amount of chemicals used in 2012 was 3,321 tons while unit emissions stood at 2.6 kg/vehicle, a 10.1% decline from 2003. In the meantime, the consumption, atmospheric emissions, and generated waste of TRI (Toxic Release Inventory) chemicals were 47,626 tons, 937 tons, and 1,836 tons, respectively, in 2012.



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## Environment

## Environment Management System

All Kia Motors' domestic and overseas worksites are ISO 14001 (environmental management standard)-certified. Every year, we undertake an internal evaluation and an environmental audit to assess our progress on environmental management, identify problems, and make improvements. In 2012, we started the implementation of an IT-based environmental system for managing the environmental targets and progress at our overseas worksites. The system will be ready for a pilot run at the Slovakia and Georgia (USA) plants in 2013. The Soha Plant was given an enforcement order to curb noise pollution in 2012. We built additional noise barriers and adjusted the direction of the ducts. We will continue to devise new noise-reduction measures and make steadfast improvements.

#### **Environmental Expenditure**

Kia Motors organizes our annual environmental expenditure into five categories. Through a streamlined investment evaluation system adopted in 2004, we evaluate the cost-saving benefits and returns on our environmental investments by category and use the findings to draw up environmental investment plans for the following year. In 2012, the total environmental expenditure for our three domestic plants was around 34.7 billion won, a 31% year-on-year increase attributable to the rise in environmental facilities investment involving the replacement of old equipment and plant expansion.

#### Domestic & Overseas Environmental Expenditure

outogory	
Environmental load reduction (direct)	(Investment in environmental facilities &
Environmental load reduction (indirect)	(Employee environmental education & e
Waste processing & recycling	(Waste processing outsourcing)
Environmental risk management	(Environmental regulatory compliance &
Environmental protection & conservation	(CSR programs & afforestation)
Total	

Investment expenditure: Exclusive of R&D centers

#### Afforestation

Category -

In order to raise the eco-friendliness of our production facilities, Kia Motors works to expand green areas in line with the expansion of building areas. Thanks to our stringent management of soil-polluting facilities since 2000, there has not been a single case of soil contamination for 13 years, and we continue to strengthen our inspection standards.

Afforestation Status -							
	Soha	Hwaseong	Gwangju	— Slovakia (KMS)	— China 1 (DYK1)	China 2 (DYK2)	— Georgia (KMMG)
Site area (m²)	498,908	3,199,636		1,974,079	405,256		2,596,130
Building area (m <sup>2</sup> )	217,508	1,162,072	537,211	274,432	89,464	272,496	211,554
Green area (m²)	74,850	663,848	89,509	1,202,331	36,752	310,437	793,187
Green rate (%)	26.6	32.6	18.5	71.0	10.4	26.0	33.3
Afforestation (trees)	55,856	248,245	114,950	1,100	3,599	2,234,841	1,418

· Errors in 2003 figures have been corrected.

			1,000 won
	2010	2011	2012
maintenance) ———	15,515,210	22,615,421	30,786,453
environmental assessments) —	787,750	919,966	960,754
	3,708,919	4,223,260	4,812,285
& accident prevention)	31,511	116,500	100.082
	127,854	179,070	26,000
	20,171,244	28,054,217	36,685,574

## Environment

ppendices

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#### Environmental Management by Worksite

ntal Dir

Plant Supe

Senior Vice Presid Cheon-Gwon Son

#### Soha Plant Location

**Hwaseong Plant** 

Gwangiu Plant

ocation

Employees

Foundation

Location

781-1, Soha-dong, Gwangmyeong, Gveonaai-do Employees 5,710 persons Foundation July 1973 Flagship products Grand Carnival (Carnival/ Sedona), K9 (Kia Quoris), Pride (Rio) Site area 498,908 m<sup>2</sup> Building area 217,508 m<sup>2</sup> ISO14001 certification December 2003

#### Community Outreach

The Soha Plant runs a teen education program for creativity and character building as well as the KIA Happy Dream scholarship program. The plant's Hope Car project helps those with limited access to mobility. Through kimchi-sharing and Children's Day special events, the plant engages and communicates with the local community.

· Environmental Accidents or Lawsuits: None · Enforcement or Corrective Orders: 2 instances of administrative orders on noise violation

1714 Ihwa-ri, Ujeong-eup, Hwaseong, Gyeonggi-do Employees 12,005 persons Foundation April 1989 Flagship products K3 (Forte/Cerato), K5 (Optima), K7 (Cadenza), Sorento R (Sorento), Mohave Site area 3,199,636 m<sup>2</sup> Building area 1,162,072 m<sup>2</sup> ISO14001 certification April 2003

#### Community Outreach

As a leading local business, the Hwaseong Plant provides scholarships to students who are household breadwinners, makes and delivers kimchi to single-dwelling senior citizens, and assists with cleanup efforts in and around nearby seawalls and piers, thus contributing to the efforts to make steadfast improvements in the local community.

· Environmental Accidents or Lawsuits: None · Enforcement or Corrective Orders: None

#### Community Outreach

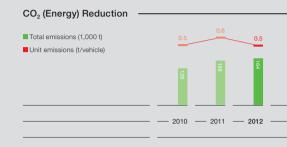
700 Naebang-dong, Seo-gu, Gwangju The Gwangju Plant extends funding and assists with cleanup activities to protect Gwangju Stream through an MOU with the Gwangju Metropolitan City. The Flagship products Soul, Carens (Rondo), Sportage plant is actively involved in the Green Gwangju 21 Council and sponsors the Mount Mudeung Protection Group and other environmental organizations. Through an agreement with the Yeongsan River Basin Environmental Office, the Gwangju Plant provides eco-tour vouchers to those in need. Some 400 persons received the vouchers in 2012.

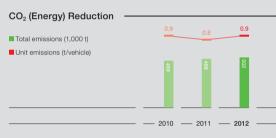
> Environmental Accidents or Lawsuits: None Enforcement or Corrective Orders: None

## Community Outreach

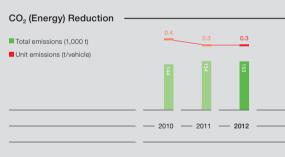
Kia service centers undertake community outreach activities that elevate the corporate image and put our CSR management vision of value sharing into practice. Our service centers' employee volunteer corps work with local government offices to organize and implement programs tailored to local needs.

Enforcement or Corrective Orders: None





production, and engine manufacturing plants.





#### **Service Centers**

Location 546 Yeondeok-dong, Giheung-gu, Yongin, Gyeonggi-do & 18 other locations Employees 1.927 persons 1958 Foundation Key services Warranty and repair & maintenance Site area 210,067 m<sup>2</sup> Building area 168,470 m<sup>2</sup> ISO14001 certification December 2003

6,675 persons

R (Sportage), Bongo III (K-Series) trucks, buses,

July 1965

military vehicles, engine blocks, heads

ISO14001 certification November 2003

Site area 1,022,244 m<sup>2</sup>

Building area 537,211 m<sup>2</sup>

Environmental Accidents or Lawsuits: None

CO<sub>2</sub> (Energy) Reduction Total emissions (1,000 t)





 There was a spike in generated waste (scrap metal) with the construction of a new foundry and expansion of the plant complex.

## Environment

CO<sub>2</sub> (Energy) Reduction

CO<sub>2</sub> (Energy) Reduction

Total emissions (1,000 t)

Unit emissions (t/vehicle)

Total emissions (1.000 t)

Unit emissions (t/vehicle)

Environmental Management by Worksite



#### Slovakia Plant (KMS) Location Teplicka n/Vahom, Slovakia 3,696 persons Employees Foundation March 2004 Flagship products Sportage, cee'd, Venga 1,886,732 m<sup>2</sup> Site area Building area 254,163 m<sup>2</sup> ISO14001 certification March 2011

China Yancheng Plant 1 (DYK 1)

Foundation July 2002

Building area 89,464 m<sup>2</sup>

Rio, Cerato Site area 1 & DYK 2)

405,256 m<sup>2</sup>

ISO14001 certification June 2007

Location Yancheng, Jiangsu Province, China

Flagship products Sportage R (Sportage), Soul,

Community Outreach The Slovakia Plant carries out diverse activities to strengthen ties with the local community. As our flagship community project, we are building a bicycle path in Žilina. The Slovakia Plant regularly invites local residents for special events, plant tours, and meetings. We sponsor skiers competing in the Special Olympics as well as the Old Town Festival, a traditional local festival.

· Environmental Accidents or Lawsuits: None · Enforcement or Corrective Orders: None

#### Community Outreach

DYK 1 and DYK 2 run safety education classes and Employees 4,941 persons (combined total of DYK plant tours for local students and carry out a wide range of other community outreach activities. The plants also sponsor the Lantern Festival and other cultural and sporting events and have remained actively committed to the Hope School project.

> · Environmental Accidents or Lawsuits: None · Enforcement or Corrective Orders: None

#### China Yancheng Plant 2 (DYK 2)

Yancheng, Jiangsu Province, China Location Employees 1 & DYK 2) oundation December 2007 Flagship products Cerato, Forte, K5, K2, K3 Site area 1,467,752 m<sup>2</sup> Building area 272,496 m<sup>2</sup> ISO14001 certification December 2009

#### Community Outreach

DYK 1 and DYK 2 run safety education classes and 4,941 persons (combined total of DYK plant tours for local students and carry out a wide range of other community outreach activities. The plants also sponsor the Lantern Festival and other cultural and sporting events and have remained actively committed to the Hope School project.

> · Environmental Accidents or Lawsuits: None Enforcement or Corrective Orders: None



0.2



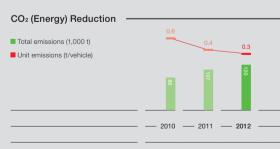
#### Georgia Plant (KMMG)

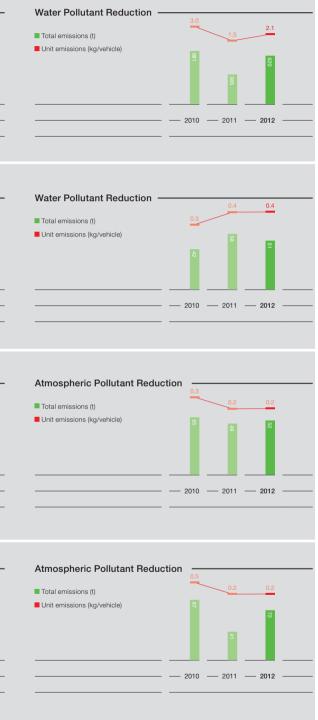
West Point, GA, USA Location Employees 3,002 persons Foundation October 2006 Flagship products Sorento, Optima, Santa Fe Site area 2.596.129 m<sup>2</sup> Building area 211,554 m<sup>2</sup> ISO14001 certification March 2011

#### Community Outreach

KMMG is involved in a volunteer cleanup program in West Point and paints houses for low-income families in LaGrange. The plant also organizes school supply and toy drives for students from low-income households. The plant funded posttornado recovery efforts in Georgia and funds math and science programs at public schools. KMMG sponsors local school, fire department, and community events and works with diverse local agencies and organizations on many different community improvement efforts.

· Environmental Accidents or Lawsuits: None · Enforcement or Corrective Orders: None





# **About This Report**

No.: AS\_PRJC-442057-2013-CCS-KOR\_E



#### < Introduction >

DNV Certification, Ltd. ("DNV") was commissioned by Kia Motors Corp. ("Kia Motors") to verify the Kia Motors' Greenhouse Gas Inventory Report for the calendar year 2012 ("the report") based upon a limited level of assurance for the international plants and a reasonable level of assurance for the domestic plants. Kia Motors is responsible for the preparation of the GHG emissions data on the basis set out within the WRE WRESD GHG protocol: 2004,the principles set out in ISO 14064-1:2006 and the guideline for Korean GHG target Management(Ministry of Environment No. 2012-211). Our responsibility in performing this work is to the management of Kia Motors Corp. only and in accordance with terms of reference agreed with them. DNV expressly disclaims any liability or responsibility for any decisions, whether investment or otherwise, based upon this assurances.

#### < Scope of Assurance >

te emissions data covered by our examination comprise Direct emissions (Scope 1 emissions), Energy indirect emissions (Scope 2 emissions) :

Reporting period under verification: Calendar Year 2012

#### Organizational boundary for reporting:

Name of site	Address / Remark	Verification activity
SLOVAKIA PLANT	P.O BOX 2, 013 01 Teplicka n/Vahom Slovakia	Site visit, Process & data verification
CHINA PLANT 1	No. 1, Kaifang Rd., Yancheng, Jiangsu, China	Site visit, Process & data verification
CHINA PLANT 2	No. 1, Xiwangda Rd., Yancheng, Jiangsa, China	Site visit, Process & data verification
USA GEORGÍA PLANT	7777 Kia Parkway WestPoint, GA 31833	Site visit, Process & data verification
SOHARI PLNAT	281-1 soha-dong, Gwangmyung-si, Gyeonggi-do, 423-701, Korea	Site visit, Process & data verification
HWASUNG PLNAT	1714 Ihwa-ri, Woojung-eup Hwasung-si, Gyeonggi-do, Korea	Site visit, Process & data verification
GWANGJU PLNAT	700 Naebang-dong, Seo-ku, Gwangju-si, Korea	Site visit, Process & data verification
Headquirter and offices in korea	Headquarter: Hyundai KIA Motors Bidg., Yangjae 2-dong, Seocho-gu, Seoul, Korea	Site visit, Process & data verification

#### < Verification Approach >

The verification has been conducted by DNV from 8<sup>th</sup> February through 14<sup>th</sup> March 2013 and performed in accordance with the verification principles and tasks outlined in ISO 14064-3:2006 and the guideline for Korean GHG target Management(Ministry of Environment No. 2012-211). We planned and performed our work so as to obtain all the information and explanations deemed necessary to provide us with sufficient evidence to provide a limited verification pointon concerning the completeness of the emission inventory as well as the reported emission figures in ton CO<sub>2</sub> equivalent. As part of the werification process:

We have reviewed and verified the information and data disclosed in the report;

We have reviewed the GHG Emissions accounting tool and VATTZ(Value Advanced Automotive Trade Zone) system used to generate, collect, report the data.

#### < Conclusions >

As a result of the work described above, in our opinion nothing has come to our attention that would cause us to believe that the GHG emissions data set out in Kia motors' report are not fairly stated except the qualification given below. The GHG Emissions of Kia Motors for the year 2012 were confirmed as below:

#### Greenhouse Gas Emissions of Kia Motors from Yr 2012

Operational boundary	SLOVAKI A PLANT	CHINA PLANT I	CHINA PLANT 2	USA GEORGIA PLANT	SOHARI PLNAT	HWASUNG PLNAT	GWANGJU PLNAT	Headquarter and other offices	Total
Direct Emissions	32,054	11,788	42,342	24,877	71,383	182,850	62,049	4,177	431,520
Energy Indirect Emissions	26,868	40,757	104,731	95,178	92,450	319,398	90,770	11,289	781,441
Total	58,922	52,545	147,073	120,055	163,833	502,248	152,819	15,466	1,212,961

₱. In order to report the GHG emissions as an integer, the rounded number on the statement might be different from the number on the system with ± 1 tCO<sub>2</sub>.

14<sup>th</sup> March 2013

Byoung-Wook Park Tae-Ho Kim

Country Manage **DNV** Certification, Ltd

This Assurance Statement is valid as of the date of the insuance (14th March 2013). Please note that this Assurance statement would be revised if any material discrepancy which may languest on the Greenboure Gas Emissions of Kla Motors Corp. is subsequently lewaghts to our attention. In the event of ambiguity or contradiction in this statements between English version and Korran version, Korean shall be given precedent.

Lead Verifier

Since 2003, Kia Motors has been publishing an annual sustainability report (MOVE) to inform our stakeholders of our efforts at maintaining and enhancing sustainability and to demonstrate our commitment to continued action and improvement. We asked ourselves whether the stuffiness and formality of the contents and formats of existing reports may hinder reader interest or access to necessary information. As an answer to this question, we adopted a sleek magazine-style layout in 2009 and named the magazine MOVE. With MOVE, we strive to enhance reader accessibility with easy-to-follow contents and a reader-oriented layout.

We hope MOVE serves to inform stakeholders not only of our efforts and progress but also to deepen the understanding of sustainability and its importance. After all, sustainability has to be realized for the benefit not only of Kia Motors but of all stakeholders, and to this end, stakeholder interest and involvement is indispensable.

#### **Reporting Standards**

Kia Motors' 2013 sustainability magazine MOVE follows the 'GRI Sustainability Reporting Guidelines 2011 (G3.1).' Item-for-item coverage ratings and relevant pages can be found in the GRI Index in 'Appendices.' \* GRI: Global Reporting Initiative (www.globalreporting.org)

#### **Reporting & Assurance**

All information disclosed is based on verified materials gathered by pertinent Kia Motors' departments. For enhanced reliability, this report has been verified by the Institute for Industrial Policy Studies (IPS), a third-party assurance agency. The assurance statement can be found in 'Appendices.'

#### **Reporting Scope & Period**

The report covers the period from 2010 to 2012. It contains quantitative performance data from the past three years to provide a convenient overview of the positive and/or negative progress. The base year is listed for systems whose year of implementation or adoption is clear. As for qualitative performance, this report focuses on 2012 activities and efforts. The reporting period corresponds to Kia Motors' fiscal year, which is January 1 to December 31. There were no significant changes during the reporting period of Kia Motors' 2013 sustainability report.

#### Accounting Standards

The tabulation of environmental and CSR investments and expenditure meet the accounting standards assured by the Board of Directors, Audit Committee, and external auditors and follow the investment assessment standards adopted in 2004. Details on environmental and CSR expenditures can be found in the main body of the report as well as the 'Data Sheet' in 'Appendices.'

#### **Reporting Targets**

This report covers Kia Motors; subsidiaries that are joint stock companies in which Kia Motors owns 50% or more shares; and overseas offices, which are jointventure corporations. Reporting targets that fall under these categories are domestic worksites (Corporate Headquarters; Soha, Hwaseong, and Gwangju Plants; technical centers; and service centers) as well as Dongfeng Yueda Kia, Georgia Plant (USA), Slovakia Plant, overseas technical centers, and the overseas worksites of overseas offices. The data collection scheme was first applied to Korean worksites and is being expanded to overseas worksites, so some of the coverage in this report is limited to domestic worksites. We used footnotes to indicate those sections in which the coverage is limited to domestic worksites.

#### **Publication Schedule**

The Korean version of the 2013 MOVE (issue no. 11) was published on March 22, 2013 and distributed at the General Shareholders' Meeting. The English version is scheduled to be published on April 30, 2013. Kia Motors' sustainability report is an annual publication.

## **Additional Information**

Please refer to the following resources for additional information: Kia Motors' official website (www.kia.com/kr/) Business report: Kia Motors' IR website (www.kmcir.com) or the Repository of Korea's Corporate Filing of the Financial Supervisory Service (dart.fss.or.kr). Department in charge: CSR Environmental Management Team, Planning Division (Refer to 'Contact Us' for contact

t information)

## **Independent Assurance Statement**

# **Independent Assurance Statement**

#### To the Management of Kia Motors

The Institute for Industrial Policy Studies (hereafter "Auditor") was engaged by Kia Motors to review information specified in its 2013 Sustainability Management Report (hereafter "Report") to provide an independent third-party assurance on the reported content. On the basis of the above, the Auditor presents the following independent statement of assurance.

#### **Besponsibility and Objective**

Kia Motors is responsible for all information and claims contained in the Report regarding the establishment of its sustainability management goals, performance management etc. The responsibility of the Auditor is to deliver the findings from its assurance undertaking to the management of Kia Motors. The key objective of the assurance is to check whether there are any material bias or errors present in the Report; assess whether the underlying data collection system is in proper working order; while undertaking in an overall review of the Company's process for identifying issues of material importance to sustainability management as well as the produced results so that the Auditor may deliver recommendations that can help improve the quality of future reporting.

#### Assurance Type and Scope

For the purpose of this assurance, the Report was reviewed against the following reporting criteria. 1) AA1000 Assurance Standard (2008) 2) BEST Reporting Guidelines<sup>2</sup> 3) GRI G3.1 Sustainability Management Reporting Guidelines<sup>3</sup>

#### Scope of Assurance

Compliance with the three core AA1000S (2008) principles of Inclusivity. Materiality, and Responsiveness Self-declared GRI reporting level/BEST Guideline reporting level

#### Assurance Type/ Level

Type I/ Moderate Moderate

#### Assurance Criteria

- The three AA1000AS (2008) principles and IPS Assurance Manual standards - IPS Performance Indicators Assurance Criteria™

GRI G3.1 Sustainability Management Reporting Guidelines

#### Work Undertaken

- A review of the source of disclosed data and department responsible for data management

- A review of the data collection system for each of the reporting dimensions and a review of the adequacy of the reporting process
- A review of the Company's platform for responding to material issues
- Interviews with persons responsible for the performance of respective dimensions

- On-site review primarily of the Company Headquarters and local (Soha Plant) workplace (Mar.8/11, 2013)
- Level of application against GRI/BEST sustainability reporting auidelines
- A review of the completeness and accuracy of the reported information by sample testing issues of material importance
- · Data on the current status of greenhouse gas emissions and management · Health and safety data for executives and employees
- Data on customer satisfaction training

#### Limitations

For the purpose of this assurance, an on-site review was carried out on Kia Motor's Headquarter office and the Company's local plant located in Soha. The review was based on available and disclosed data for the relevant reporting period and does not include online data. Financial and greenhouse gas-related data validated by third party providers were not included within the scope of this assurance.

#### **Assurance Findings**

Based on the assurance scope, methodology, and criteria outlined above, the Auditor did not find the Report to contain any material misstatements or bias. The reported performance data was also found to be adequately derived and reported upon without distortion based on the Company's underlying system for data collection and reporting. The material findings from the Auditor are included herein, and a detailed account of the results and follow-up recommendations has been submitted to Kia Motors

[Inclusivity] Does Kia Motors adhere to the principle of stakeholder engagement to ensure a responsible and strategic response toward sustainability management?

The Auditor took note of various processes put in place by the Company for stakeholder engagement, based on the recognition that stakeholder participation is crucial to the implementation of sustainability management. It is the Auditor's view that Kia Motors has succeeded in identifying key issues of material importance to its sustainability management initiatives by expanding its channels of engagement with stakeholders and reflecting key engagement findings.

#### The following points were found to be particularly commendable.

• Efforts to utilize not only online channels such as SNS, but also offline channels to broaden its likely engagement with stakeholders while establishing a channel that facilitates two-way communication with stakeholder groups

AA1000AS is an assurance standard for social and sustainable reporting developed by the U.K.-based Institute of Social and Ethical AccountAbility in November 1999 that promotes corporate social responsibility, business ethics and responsible business practices, aiming to improve the quality of social and ethical accounting, auditing and reporting. The 2008 amended version entered into effect as of 2010.

<sup>2</sup> BEST Sustainability Management Guidelines: The BEST Sustainability Reporting Guideline was jointly developed by the SM Forum, the Ministry of Knowledge Economy (MKE), nerce and Industry (KCCI), and the Institute for Industrial Policy Studies (IPS) in 2006 and provides for five levels of reporting coverage and depth the Korea Chamber of Com (Level 1 ~ 5)

<sup>3</sup> The Global Reporting Initiative (GRI)'s Sustainability Reporting Guideline was jointly convened by the Coalition for Environmentally Responsible Economies (CERES) and UNEP in 1997. Building on the G3 version which was launched in Oct. 2006, the newly revised G3.1 version was released in Mar. 2011 with an expanded emphasis on human rights. gender, and the local community, G4, the fourth version is set to be introduced in 2013.

• Efforts to create a broad stakeholder engagement channel that can collect the opinions and views of all stakeholders surrounding Kia Motors e.g. customers, shareholders, investors, management and employees, business partners, and the local community

• Efforts to reflect stakeholder feedback back into business management decisions in order to help fulfill the Company's social responsibilities (ex. Project supporting education/training)

Going forward, the Auditor suggests putting in place a set of strategies and processes for stakeholder engagement while further strengthening the Company's overall stakeholder engagement strategies.

#### [Materiality] Does the Report contain information of the highest material importance to Kia Motor stakeholders across the economic, social, and vironmental dimensions?

It is the Auditor's view that the Report does not omit or exclude issues necessary for stakeholders to make informed judgments or decisions regarding Kia Motors.

We verified efforts to reflect material issues of the highest importance in the Company's Report through the following: an analysis of internal corporate policies, laws and regulations, stakeholder surveys, direct and indirect economic impact studies, peer benchmarking, and media research etc.

#### The following points were found to be particularly commendable

 The Report categorizes material issues by major stakeholder group to make it easier to assess the demands and interests of different stakeholders

• The Report reflects the Company's efforts to minimize the omission of any material issues regarding stakeholder demands and interests by carrying out an internal/external analysis of the Company

 The Report highlights the Company's key materiality findings in the order of established priority, while structuring the Report around its highest-priority

Going forward, the Auditor recommends outlining key changes to its highestpriority materiality findings so that stakeholders can track trend data on issues of key relevance to the Company.

#### [Responsiveness] Does the Report provide an adequate response to stakeholder demands and interests?

The Auditor confirmed efforts by Kia Motors to be more responsive to feedback collected from stakeholders such as formulating counter measures specific to the demands and concerns of respective stakeholder groups while also working to provide solutions to stakeholder demands and concerns

#### The following points were found to be particularly commendable.

• The Report outlines the current status of the Company's response to various materiality findings (ex. Social contributions, environmentally-friendly products) • The Report categorizes key materiality findings by stakeholder group while offering a detailed account of the response taken by Kia Motors including relevant activities and outcomes

• The Report indicates the Company's proposed response and plans with regard to changes identified in stakeholder demands and the market

Going forward, the Auditor suggests creating a system designed specifically to address issues relevant to respective sustainability dimensions so that the Company can provide a more pre-emptive response to all stakeholder requirements and concerns.





#### Level of Application

Relative to the GRI G3.1 Guidelines, the Report was found to conform to an "A+ level" of application. Relative to the BEST Guidelines, in view of the coverage and depth of information provided, the Auditor finds the Report to fulfill 94.2% of the reporting requirements necessary to qualify for a Level 4 Report (from Level 1 to 5)

#### **Recommendations**

As the eleventh Report by Kia Motors, the Auditor found its "2013 Sustainability Report" commendable in the following respects. The Report (1) focuses on the key issues identified to be of material importance while also providing links between the key issues and the reported content to enhance the understanding of its stakeholders; (2) reflects Company efforts to expand its stakeholder engagement channels for greater stakeholder convenience; and (3) incorporates stronger application of reporting guidelines while offering a broader scope of activities and outcomes to illustrate its commitment toward sustainability management

#### For future reports, the Auditor recommends considering the following.

 Provide more details on the linkage between Kia Motor's company-wide corporate vision and strategy and its vision and strategy for sustainability management in the respective economic, social, and environmental dimensions

• Establish a system for managing the performance of newly emerging issues while reinforcing time-series analysis on key materiality findings by year

Strengthen management of key material issues by including Tier 1.2

business partners within the value chain and create shared growth outcomes • Strengthen reporting on the gualitative performance of anti-corruption and ethical business management activities

 Establish direct channels of communication e.g. expert interviews. stakeholder committee etc. to collect stakeholder views and comments

#### Independence

Apart from this independent assurance undertaking, the Auditor was not involved in the preparation of any part of the Report, and has no commercial affiliation with Kia Motors that might compromise our independence.

#### **Qualifications of the Auditor**

Commissioned by Kia Motors as the Auditor for this assurance undertaking, the Institute for Industrial Policy Studies (IPS) was established in 1993 and has since developed into a specialized institution with broad expertise in the areas of business ethics, CSR, and sustainability management since 2002. The Auditor is composed of experts in business management, accounting, and environmental science including professors at Korea's top universities and practitioners with professional accreditation and extensive experience in sustainability management.

Mar 14, 2013 Jae-Eun, Kim President. The Institute for Industrial Policy Studies

# GRI (G3.1) Index

# GRI (G3.1) Index

	Performanc Indicator	e Description	Reported	Cross-reference	Best
		Profile			
tegy and Analysis	1.1	Statement from the most senior decision-maker of the organization.	•	4~5	A_1
	1.2	Description of key impacts, risks, and opportunities.	٠	12~15	A_2
anizational Profile	2.1	Name of the organization.	٠	2	A_3
	2.2	Primary brands, products, and/or services.	٠	3, 66~68	A_4
	2.3	Operational structure of the organization, including main divisions, operating companies, subsidiaries, and joint	•	2~3	A_5
		ventures.			
	2.4	Location of organization's headquarters.	•	3	A_7
	2.5	Number of countries where the organization operates, and names of countries with either major operations or	•	3	A_7
		that are specifically relevant to the sustainability issues covered in the report.			
	2.6	Nature of ownership and legal form.	•	3,9	A_8
	2.7	Markets served (including geographic breakdown, sectors served, and types of customers/beneficiaries).	•	3	A_9
	2.8	Scale of the reporting organization.	•	2~3,66~68,70~93	A_10
	2.9	Significant changes during the reporting period regarding size, structure, or ownership.	•	91	B_8
	2.10	Awards received in the reporting period.	•	7 91	CO8 B 3
ort	3.2	Reporting period (e.g., fiscal/calendar year) for information provided.	•	91	Б_3 В 8
imeters	3.3	Date of most recent previous report (if any). Reporting cycle (annual, biennial, etc.)	•	91	B_6
	3.4	Contact point for questions regarding the report or its contents.	•	91	B_9
	3.5	Process for defining report content.	•	11	B 4
	3.6	Boundary of the report (e.g., countries, divisions, subsidiaries, leased facilities, joint ventures, suppliers). See	•	91	B_1
		GRI Boundary Protocol for further guidance.			
	3.7	State any specific limitations on the scope or boundary of the report (see completeness principle for	•	91	B 2
		explanation of scope).			-
	3.8	Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities	•	91	A_6
		that can significantly affect comparability from period to period and/or between organizations.			
	3.9	Data measurement techniques and the bases of calculations, including assumptions and techniques underlying	٠	79	-
		estimations applied to the compilation of the Indicators and other information in the report. Explain any			
		decisions not to apply, or to substantially diverge from, the GRI Indicator Protocols.			_
	3.10	Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for	•	91	-
		such re-statement (e.g.,mergers/acquisitions, change of base years/periods, nature of business, measurement			
		methods).			
	3.11	Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied	•	91	B_5
		in the report.			
	3.12	Table identifying the location of the Standard Disclosures in the report.	•	94~96	B_10
	3.13	Policy and current practice with regard to seeking external assurance for the report.	•	92~93	B_7
	4.1	Governance structure of the organization, including committees under the highest governance body	•	8~9	GR1
mitments,		responsible for specific tasks, such as setting strategy or organizational oversight.			
	4.2	Indicate whether the Chair of the highest governance body is also an executive officer.	•	8	GR1 G
igement	4.3	For organizations that have a unitary board structure, state the number of members of the highest governance	•	8~9	GR2
	4.4	body that are independent and/or non-executive members.	•	8	GR12
	4.4	Mechanisms for shareholders and employees to provide recommendations or direction to the highest	•	0	GRIZ
	4.5	governance body.	•	8	GR7
	4.5	Linkage between compensation for members of the highest governance body, senior managers, and executives (including departure arrangements), and the organization's performance (including social and	•	0	GHI
		environmental performance).			
	4.6	Processes in place for the highest governance body to ensure conflicts of interest are avoided.	•	8	GR13
	4.7	Process for determining the qualifications and expertise of the members of the highest governance body for	•	8	GR4
		guiding the organization's strategy on economic, environmental, and social topics.			
	4.8	Internally developed statements of mission or values, codes of conduct, and principles relevant to economic,	•	7, 30, 53	-
		environmental, and social performance and the status of their implementation.			
	4.9	Procedures of the highest governance body for overseeing the organization's identification and management of	٠	9	GR5
		economic, environmental, and social performance, including relevant risks and opportunities, and adherence or			
		compliance with internationally agreed standards, codes of conduct, and principles.			
	4.10	Processes for evaluating the highest governance body's own performance, particularly with respect to	•	8	GR6
		economic, environmental, and social performance.			
	4.11	Explanation of whether and how the precautionary approach or principle is addressed by the organization.	٠	12~15	GR11
	4.12	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the	•	71	GR10
		organization subscribes or endorses.			
	4.13	Memberships in associations (such as industry associations) and/or national/international advocacy	•	71	A_11
		organizations in which the organization: * Has positions in governance bodies; * Participates in projects or			
		committees; * Provides substantive funding beyond routine membership dues; or * Views membership as			
		strategic.		<u></u>	
	4.14	List of stakeholder groups engaged by the organization.	•	10	C_1 C_
	4.15	Basis for identification and selection of stakeholders with whom to engage.	•	10	<u>C_1</u>
	4.16	Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder	•	10	C_2
		group.			
	4.17	Key topics and concerns that have been raised through stakeholder engagement, and how the organization		10~11	C_3

	Performanc Indicator	ce Description	Reported	Cross-reference	Best
		Economic Performance			
Economic performance	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.	•	16~19	EC1
	EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change.	٠	12~15	EC2
	EC3	Coverage of the organization's defined benefit plan obligations.	٠	76	EC3
	EC4	Significant financial assistance received from government.	0	not reported	EC5
Market presence	EC5	Range of ratios of standard entry level wage compared to local minimum wage at significant locations of operation.	•	75	EM4
	EC6	Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation.	٠	36, 75	EC4
	EC7	Procedures for local hiring and proportion of senior management hired from the local community at significant locations of operation.	•	36, 75	EC4
	EC8	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind, or pro bono engagement.	•	23~31	EC6
mpacts	EC9	Understanding and describing significant indirect economic impacts, including the extent of impacts.	•	19	EC7
		Environment Performance			
Materials	EN1	Materials used by weight or volume.	٠	46, 80	EV10
	EN2	Percentage of materials used that are recycled input materials.	٠	46~47, 51, 80, 81	EV11
Inergy	EN3	Direct energy consumption by primary energy source.	٠	46, 81~82	EV7
	EN4	Indirect energy consumption by primary source.	٠	82	EV8
	EN5	Energy saved due to conservation and efficiency improvements.	٠	46~47, 51, 80~82	EV5
	EN6	Initiatives to provide energy-efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives.	٠	46~47, 51, 80~82	EV5
	EN7	Initiatives to reduce indirect energy consumption and reductions achieved.	•	46~47, 51, 80~82	EV5, EV2
Vater	EN8	Total water withdrawal by source.	٠	47, 81	EV9
	EN9	Water sources significantly affected by withdrawal of water.	•	81	EV20
	EN10	Percentage and total volume of water recycled and reused.	0	not reported	EV18
Biodiversity	EN11	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.	•	85	EV22
	EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas.	0	not reported	EV22, EV
	EN13	Habitats protected or restored.	•	N/A	EV27
	EN14	Strategies, current actions, and future plans for managing impacts on biodiversity.	0	not reported	EV6, EV2
	EN15	Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk.	۰	N/A	EV28
Emissions, effluents	EN16	Total direct and indirect greenhouse gas emissions by weight.	•	46~47, 80~81	EV12
and waste	EN17	Other relevant indirect greenhouse gas emissions by weight.	٠	46~47, 80~81	EV13
	EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved.	٠	46~47, 80~81	EV4
	EN19	Emissions of ozone-depleting substances by weight.	٠	83	EV14
	EN20	NOx, SOx, and other significant air emissions by type and weight.	٠	83	EV15
	EN21	Total water discharge by quality and destination.	٠	48	EV17
	EN22	Total weight of waste by type and disposal method.	٠	80~81	EV16
	EN23	Total number and volume of significant spills.	•	85	EV21
	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.	٥	N/A	EV29
	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.	0	not reported	EV19
Products and services	EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation.	•	52-55, 56-61	EV23
	EN27	Percentage of products sold and their packaging materials that are reclaimed by category.	٠	51	EV24
Compliance	EN28	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations.	٠	85	EV31
Fransport	EN29	Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce.	•	49	EV30
Dverall	EN30	Total environmental protection expenditures and investments by type.	•	85	EV1
		Social: Labor Practices and Decent Work			
Employment	LA1	Total workforce by employment type, employment contract, and region.	•	64	EM1
	LA2	Total number and rate of employee turnover by age group, gender, and region.	•	75	EM5
	LA2 LA3	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by major			
		operations.	٠	76	EM20
abor/	LA4	Percentage of employees covered by collective bargaining agreements.	•	36	EM12
nanagement relations	LA5	Minimum notice period(s) regarding significant operational changes, including whether it is specified in collective agreements.	•	77	EM13
Occupational health and safety	LA6	Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs.	•	77	EM14
	LA7	Rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities by region.	٠	77	EM19

	Performano Indicator	ce Description	Reported	Cross-reference	Best
		Economic Performance			
performance	EC1	Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital	•	16~19	EC1
	EC2	providers and governments. Financial implications and other risks and opportunities for the organization's activities due to climate change.	•	12~15	EC2
	EC3	Coverage of the organization's defined benefit plan obligations.	•	76	EC3
	EC4	Significant financial assistance received from government.	0	not reported	EC5
	EC5	Range of ratios of standard entry level wage compared to local minimum wage at significant locations of operation.	•		EM4
	EC6 EC7	Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation. Procedures for local hiring and proportion of senior management hired from the local community at significant locations of operation.	•	36, 75 36, 75	EC4 EC4
	EC8	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind, or pro bono engagement.	•	23~31	EC6
	EC9	Understanding and describing significant indirect economic impacts, including the extent of impacts.	٠	19	EC7
		Environment Performance			
	EN1	Materials used by weight or volume.	•	46, 80	EV10
	EN2	Percentage of materials used that are recycled input materials.	•	46~47, 51, 80, 81	EV11
	EN3	Direct energy consumption by primary energy source.	•	46, 81~82	EV7
	EN4	Indirect energy consumption by primary source.	•	82	EV8
	EN5	Energy saved due to conservation and efficiency improvements.	•	46~47, 51, 80~82	EV5
	EN6	Initiatives to provide energy-efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives.	•	46~47, 51, 80~82	EV5
	EN7	Initiatives to reduce indirect energy consumption and reductions achieved.	٠	46~47, 51, 80~82	EV5, EV2
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	EN9	Water sources significantly affected by withdrawal of water.	•	81	EV20
	EN10	Percentage and total volume of water recycled and reused.	0	not reported	EV18
ty	EN11	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.	•	85	EV22
	EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas.	0	not reported	EV22, EV2
	EN13	Habitats protected or restored.	•	N/A	EV27
	EN14	Strategies, current actions, and future plans for managing impacts on biodiversity.	0	not reported	EV6, EV2
	EN15	Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk.	۰	N/A	EV28
, effluents	EN16	Total direct and indirect greenhouse gas emissions by weight.	•	46~47, 80~81	EV12
,	EN17	Other relevant indirect greenhouse gas emissions by weight.	•	46~47, 80~81	EV13
	EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved.	•	46~47, 80~81	EV4
	EN19	Emissions of ozone-depleting substances by weight.	•	83	EV14
	EN20	NOx, SOx, and other significant air emissions by type and weight.	•	83	EV15
	EN21	Total water discharge by quality and destination.	•	48	EV17
	EN22	Total weight of waste by type and disposal method.	•		EV16
	EN23	Total number and volume of significant spills.	•	85	EV21
	EN24	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel	•	N/A	EV29
	EN25	Convention Annex I, III, III, and VIII, and percentage of transported waste shipped internationally. Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected	0	not reported	EV19
		by the reporting organization's discharges of water and runoff.			
and services	EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation.	•	52-55, 56-61	EV23
ce	EN27 EN28	Percentage of products sold and their packaging materials that are reclaimed by category. Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with	•	51 85	EV24 EV31
	EN29	environmental laws and regulations. Significant environmental impacts of transporting products and other goods and materials used for the	•	49	EV30
	EN30	organization's operations, and transporting members of the workforce.	•	85	E\/1
	ENJU	Total environmental protection expenditures and investments by type. Social: Labor Practices and Decent Work	•	ວວ	EV1
ent	LA1	Total workforce by employment type, employment contract, and region.	•	64	EM1
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	LA2 LA3	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by major			
		operations.	•	76	EM20
	LA4	Percentage of employees covered by collective bargaining agreements.	•	36	EM12
ent relations	LA5	Minimum notice period(s) regarding significant operational changes, including whether it is specified in collective agreements.	•	77	EM13
onal health and	LA6	Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs.	•	77	EM14

appendices

# GRI (G3.1) Index

	Performanc Indicator	e Description	Reported	Cross-reference	Best
Occupational health and	LA8	Education, training, counseling, prevention, and risk-control programs in place to assist workforce members,	•	28~30, 35	EM18
safety		their families, or community members regarding serious diseases.			
	LA9	Health and safety topics covered in formal agreements with trade unions.	•	77	EM15
Training and education	LA10	Average hours of training per year per employee by employee category.	•	76	EM27
	LA11	Programs for skills management and lifelong learning that support the continued employability of employees	٠	76	EM28
		and assist them in managing career endings.			
	LA12	Percentage of employees receiving regular performance and career development reviews.	•	76	EM29
Diversity and equal	LA13	Composition of governance bodies and breakdown of employees per category according to gender, age	•	36~37, 75	EM2
opportunity		group, minority group membership, and other indicators of diversity.			
	LA14	Ratio of basic salary of men to women by employee category.	•	36, 75	EM17
	LA15	Return to work and retention rates after parental leave, by gender.	•	76	-

## Social: Human Rights

nvestment and	HR1	Percentage and total number of significant investment agreements that include human rights clauses or that	0	not reported	PN2
Procurement Practices		have undergone human rights screening.			
	HR2	Percentage of significant suppliers and contractors that have undergone screening on human rights and	O	39~40	PN3
		actions taken.			
	HR3	Total hours of employee training on policies and procedures concerning aspects of human rights that are	٠	67	EM30
		relevant to operations, including the percentage of employees trained.			
on-discrimination	HR4	Total number of incidents of discrimination and actions taken.	٠	36~37	EM7
reedom of association	HR5	Operations identified in which the right to exercise freedom of association and collective bargaining may be at	٠	35~36	EM8
nd collective bargaining		significant risk, and actions taken to support these rights.			
nild labor	HR6	Operations identified as having significant risk for incidents of child labor, and measures taken to contribute to	•	77	EM9
		the elimination of child labor.			
prced and compulsory	HR7	Operations identified as having significant risk for incidents of forced or compulsory labor, and measures to	٠	77	EM10
bor		contribute to the elimination of forced or compulsory labor.			
ecurity	HR8	Percentage of security personnel trained in the organization's policies or procedures concerning aspects of	0	not reported	EM31
actices		human rights that are relevant to operations.			
digenous rights	HR9	Total number of incidents of violations involving rights of indigenous people and actions taken.	•	N/A	CO2
ssessment	HR10	Percentage and total number of operations that have been subject to human rights reviews and/or impact	O	39~40	
		assessments.			
emediation	HR11	Number of grievances related to human rights filed, addressed and resolved through formal grievance	Ð	40, 76	-
		mechanisms.			

#### Social: Society

	SO1	Nature, scope, and effectiveness of any programs and practices that assess and manage the impacts of	•	22~31, 79	CO1
nmunities		operations on communities, including entering, operating, and exiting.			
ruption	SO2	Percentage and total number of business units analyzed for risks related to corruption.	•	78	CO5
	SO3	Percentage of employees trained in organization's anti-corruption policies and procedures.	•	78	CO5
	SO4	Actions taken in response to incidents of corruption.	•	78	CO5
olic policy	SO5	Public policy positions and participation in public policy development and lobbying.	•	19, 81	CO6
	SO6	Total value of financial and in-kind contributions to political parties, politicians, and related institutions by	•	N/A	C07
		country.			
i-competitive behavior	S07	Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their	•	78	CS3
		outcomes.			
npliance	SO8	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws	•	78	CO9
		and regulations.			
al	SO9	Operations with significant potential or actual negative impacts on local communities	•	15	-
	SO10	Prevention and mitigation measures implemented in operations with significant potential or actual negative	٠	15, 20~21, 45~51	-
		impacts on local communities.			

#### Social: Product Responsibility

		· · ·			
Customer	PR1	Life cycle stages in which health and safety impacts of products and services are assessed for improvement,	•	62~65	CS4
nealth and		and percentage of significant products and services categories subject to such procedures.			
afety	PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning health and	٠	74	CS11
		safety impacts of products and services during their life cycle, by type of outcomes.			
Product and service	PR3	Type of product and service information required by procedures, and percentage of significant products and	٠	66~69	CS5
abelling		services subject to such information requirements.			
	PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and	٠	74	CS12
		service information and labeling, by type of outcomes.			
	PR5	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction.	٠	74	CS9
Marketing	PR6	Programs for adherence to laws, standards, and voluntary codes related to marketing communications,	•	74	CS13
		including advertising, promotion, and sponsorship.			
	PR7	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing	٠	74	CS14
		communications, including advertising, promotion, and sponsorship by type of outcomes.			
Customer	PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer	•	74	CS15
privacy		data.			
Compliance	PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and	•	74	CS15
		use of products and services.			

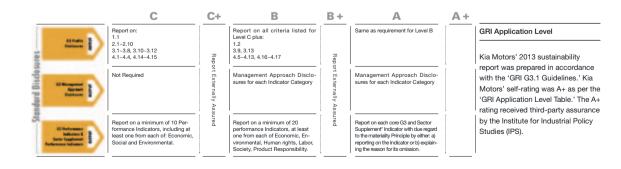
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