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MIRECO SUSTAINABILITY REPORT 2012

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〈Management〉 Technology Series 2013-54
ISBN 978-89-8237-771-6





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CEO's Message

Respected Shareholders,

We are delighted to greet you with the publication of Mireco's second sustainability containing our results in the areas of economy, society, and environment.

Due to the worldwide economic recession over the past several years, Korea suffered a slowdown in economic growth and various social dilemmas, such as income polarization and environmental problems, on a continual basis. To resolve this, "sustainability" has emerged as a pressing topic in today's world, based on the balance between the environment and development through economic democratization, establishment of economic order, and shared growth between the large, medium, and small businesses.

Mireco actively participated in the resolution of eminent tasks faced by society in its own field of business.

Mireco works closely with the public by restoring mine damage, a social debt caused by resources development. The company works to find the balance between the environment and development, providing support to small and medium businesses in deteriorated mining areas, create job opportunities, and provide assistance to the coal and coal briquettes industry. This is in line with the current need to achieve sustainable growth by the even distribution of the fruits of growth among neglected and deteriorated areas, class, and industries. Therefore, this second year of publishing the sustainability holds a great significance in expressing the corporation's sense of duty and confidence. As a result of these efforts, Mireco joined UNGC in 2013 and emphasized its support of the 10 Principles in the same context.

2013 marks the seventh year since the establishment of the corporation. Mireco faithfully carried out its own responsibilities such as the mine damage control business, assisting the coal and coal briquette industry, supporting local businesses, overseas cooperation businesses, and research and development for the past 6 years while achieving accomplishments in promoting government-assigned projects, entering into the global mine damage control market, and developing new mine damage control technology to ensure future growth. Based on its accumulated experience and capabilities, the corporation yielded visible accomplishments in the field of mine damage control, growing into an organization earning respect and trust from its customers.





Mireco faces challenging external conditions. The uncertainty of the environment will grow in the future, as well as challenge and change. In the midst of these circumstances, all employees of the corporation intend to return to the basics to make the leap into becoming a first-class public corporation and to create new shared value as a “world-class mine damage control expert”. As a tree with strong roots withstands violent wind and rain, Mireco understands that an organization with a firm foundation is equipped to handle crisis, achieve its visions, and lead sustainable growth.

To this end, Mireco reestablished its mission, reformed its structure for efficient and professional business promotion, increased the number of employees by increasing internal organizational stability, and fulfilled mutual growth with small and medium businesses to carry out its duty as a public corporation based on its new mission, vision, and structure.

Mireco will strive to contribute to continuous national growth and improved public welfare through eco-friendly mine damage restoration efforts and equal development of areas as an expert in mine damage control for sustainable growth. The corporation will earn trust from the public through the realization of coexistence between humans and nature and the harmony between development and preservation. Mireco will appreciate the continuing attention, interest, and suggestions from its stakeholders for future growth.

Thank you.

CEO, Korea Mine Reclamation Corporation

전혁인

Mireco's Major Business

mireco

Mine Reclamation Projects

Prevention and Restoration of Mine Damage Resulting from Operating, Resting, or Abandoned Mines

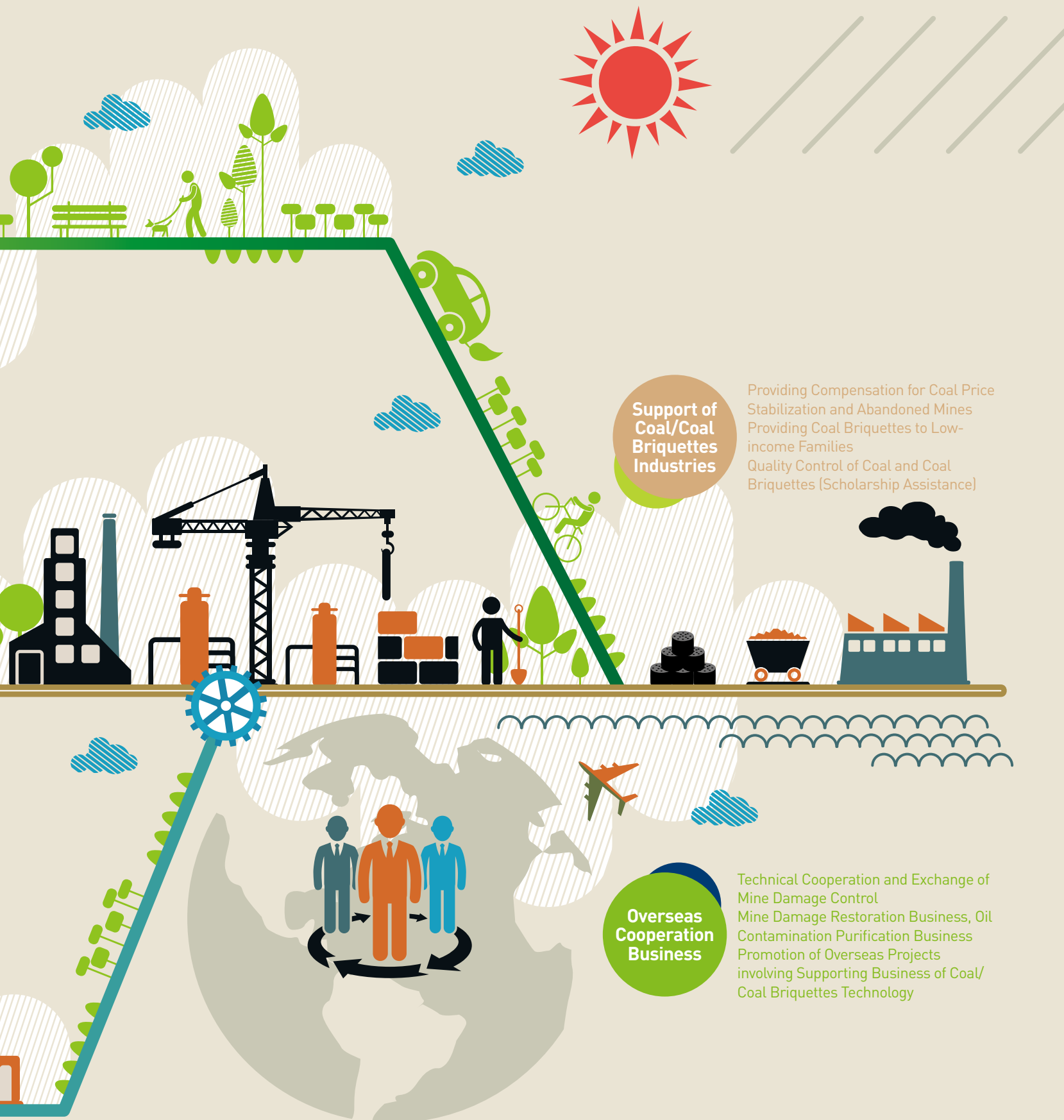
Water Quality Improvement / Improvement or Restoration of Soil Contamination / Prevention of Mine Waste Loss / Forest Restoration / Prevention of Mine Waste Rocks / Ground Stabilization / Demolition of Closed Facilities / Prevention of Noise, Vibration, and Dust / Development of Mine Waste Control Technology, etc.



Promotion Business of Abandoned Mine Areas

Development of Abandoned Mine Areas through the Establishment of Mutual Investment Companies, Assistance of Alternative Industries Financing





Support of Coal/Coal Briquettes Industries

Providing Compensation for Coal Price
Stabilization and Abandoned Mines
Providing Coal Briquettes to Low-
income Families
Quality Control of Coal and Coal
Briquettes (Scholarship Assistance)

Overseas Cooperation Business

Technical Cooperation and Exchange of
Mine Damage Control
Mine Damage Restoration Business, Oil
Contamination Purification Business
Promotion of Overseas Projects
involving Supporting Business of Coal/
Coal Briquettes Technology

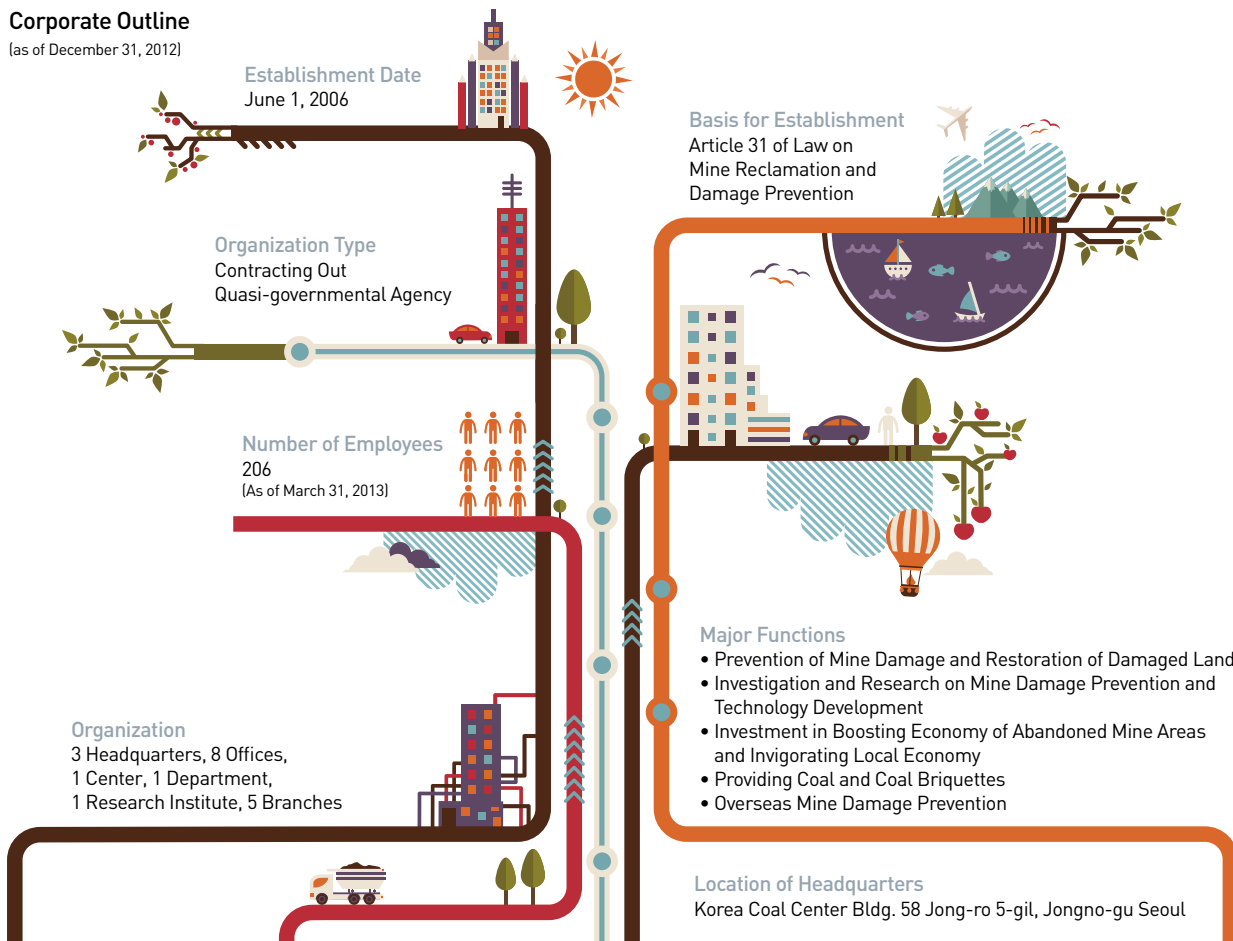
Introduction of Mireco

Current State of Affairs

Mireco supports protection of the public health, stable supply and demand of coal, improved living conditions, and balanced development between different areas through projects such as mine damage control, promotion of abandoned mine areas, and support of the coal industry. Mireco will continue to be an exemplary public organization by increasing the rights and interests of the public and leading the way into a brighter future through harmonious development between nature and the human race.

Corporate Outline

(as of December 31, 2012)



Corporate History

- May 31, 2005** Enactment of Law on Mine Reclamation and Damage Prevention
- June 1, 2006** Establishment of Mine Damage Prevention Organization
- January 1, 2008** Reorganized as the Affiliated Center of Technology Research Institute
- June 29, 2008** Changed the Name to Korea Mine Reclamation Corporation
- November 24, 2008** Designated as the Entrusted National Technical Qualification Examination Organization
- November 30, 2008** Designated as the Expert Organization in Soil
- August 11, 2009** Establishment of National Technical Qualification Examination Office
- May 27, 2010** Opening of Mongolian Office
- November 10, 2011** Relocation of Mine Damage Control Technology Institute (Cheonan)
- January 1, 2012** Reorganized into 3 Headquarters, 8 Offices, 1 Center, 1 Department, 1 Research Institute, and 5 Branches - System

Present Condition of Headquarters and Overseas Offices

	Location	Number of People
Gangwon Branch	Taebaek City, Gangwon-do	16
Chungcheong Branch	Daedeok-gu, Daejeon Metropolitan City	15
Youngnam Branch	Suseong-gu, Daegu Metropolitan City	14
Gyeongin Branch	Paldal-gu Suwon City, Gyeonggi-do	6
Honam Branch	Buk-gu, Gwangju Metropolitan City	7
Mongolian Office	Ulaanbaatar City, Mongolia	2

Current Membership Status in Major Organizations

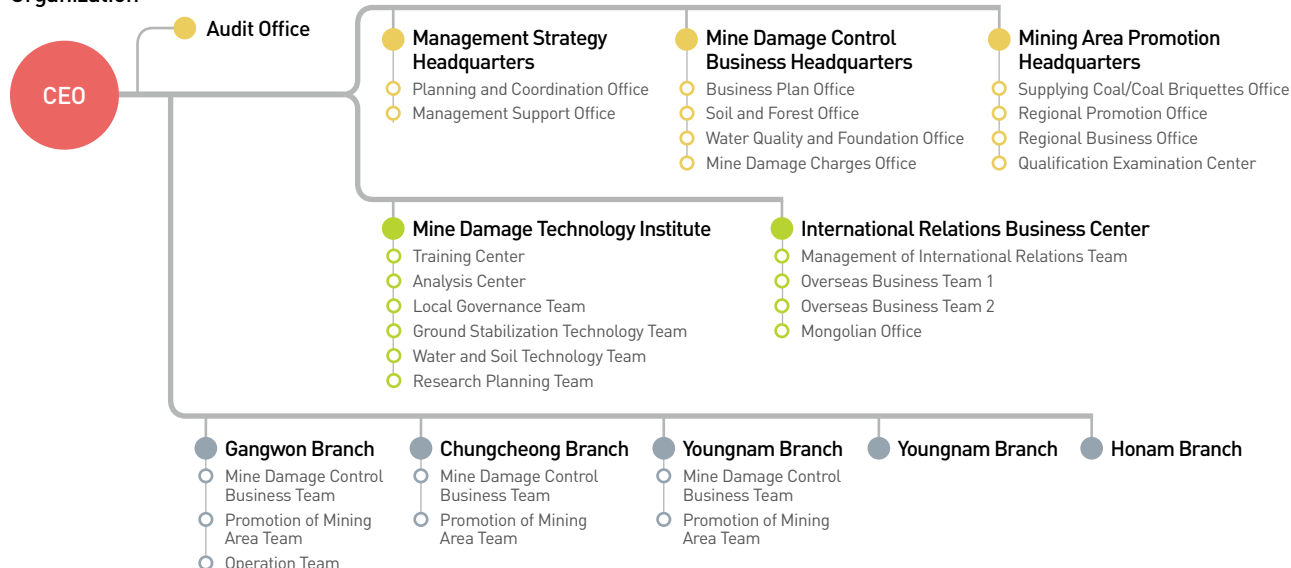
(When Joined after 2010)

Joined Organization	Date of Admission
Korean Mining Association	January 1, 2010
Korean Geophysical Prospecting Society	April 1, 2010
Korean Mining Reclamation Association	April 7, 2010
Overseas Resources Development Association	April 12, 2010
Korean GIS Society	April 15, 2010

Membership Status in External Initiative

Organization	Date of Admission
UNGC	June 11, 2013
UNGC Korea	June 27, 2013

Organization



Supply Chain of Mireco

Mireco runs a mine damage control business, and the contracts awarded by the corporation will be delivered to the local community by the performance of expert mine damage control contractors or operating mining rights holders. The corporation cannot employ subcontractors, and the supply chain of the corporation is limited to the expert mine damage control contractors or operating mining rights holders.

Major Business Fields

Mine Damage Control Business	<ul style="list-style-type: none"> Operating, Resting, or Abandoned Mine Damage Control and Restoration Installation, Operation, and Management Investigation, Research, Technology Development, Education for Mine Damage Control and Technical Cooperation in and out of the Country
Supply of Coal/Coal Briquettes	<ul style="list-style-type: none"> Providing Compensation for Coal Price Stabilization and Abandoned Mines Providing Coal Briquettes to Low-income Families Quality Control of Coal/Coal Briquettes
Promotion of Business in Abandoned Mine Areas	<ul style="list-style-type: none"> Development Project of Abandoned Mine Areas through Establishment of Mutual Investment Companies Assisting Alternative Industry Financing
Overseas Cooperation Business	<ul style="list-style-type: none"> Technological Cooperation and Exchange of Mine Damage Control Promotion of Overseas Business such as Mine Damage Restoration, Oil Contamination Purification and Technological Support of Coal/Coal Briquettes
National Qualification Examination	<ul style="list-style-type: none"> Qualification Examination Reflecting Field Demand and Production of Professions Education of Successful Examinees after Qualification

Current International MOU Signing Status

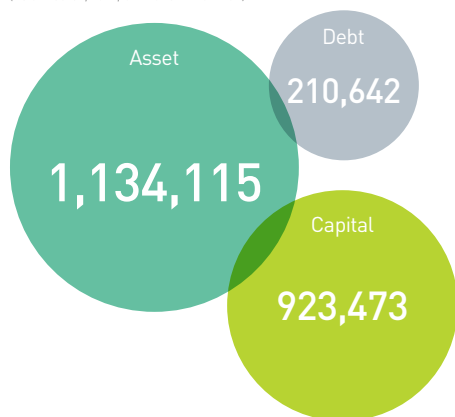
[Agreements Signed After 2011]

Contracting Countries	Organization	Date of Signing	Details
Thailand	Department of Industry and Mining	Oct. 13, 11	Agreement on Mine Damage Control Technological Cooperation and Discussion of Follow-up Measures
	Electricity Generating Authority	Nov. 28, 11	Cooperating for Mae Moh Mine Restoration
United States	BIOGENESIS	March 7, 11	Establishment of technical partnership for purification of polluted soil and cleaning of tailing environment
Malaysia	Mines and Geosciences Bureau	April 27, 12	estoration of Mannut Mine [Drainage Treatment]
Columbia	Mineral Energy Department	June 25, 12	haring of Mine Damage Control Legal System and Technological Cooperation
Uzbekistan	Agency for Geology and Mineral Resources	Sep. 7, 12	Technological Cooperation of Mine Damage Control and Coal/Coal Briquettes Industry
Ukraine	Eco Natural Resources Department	Nov. 21, 12	Sharing of Mine Damage Control Legal System, Technological Cooperation, and Joint Investigation

Financial Structure and Budget

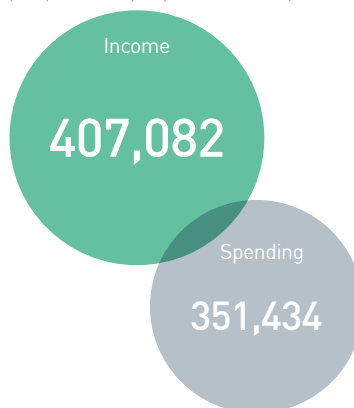
Summary Financial Statement

[As of Dec. 31, 2012, Unit: One million won]

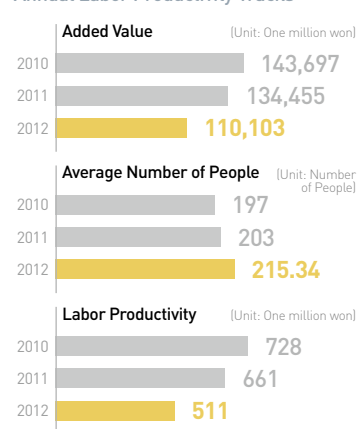


Summary Income Statement

[Jan. 1, 2012 - Dec. 31, 2012, Unit: One million won]



Annual Labor Productivity Tracks



Awards Received



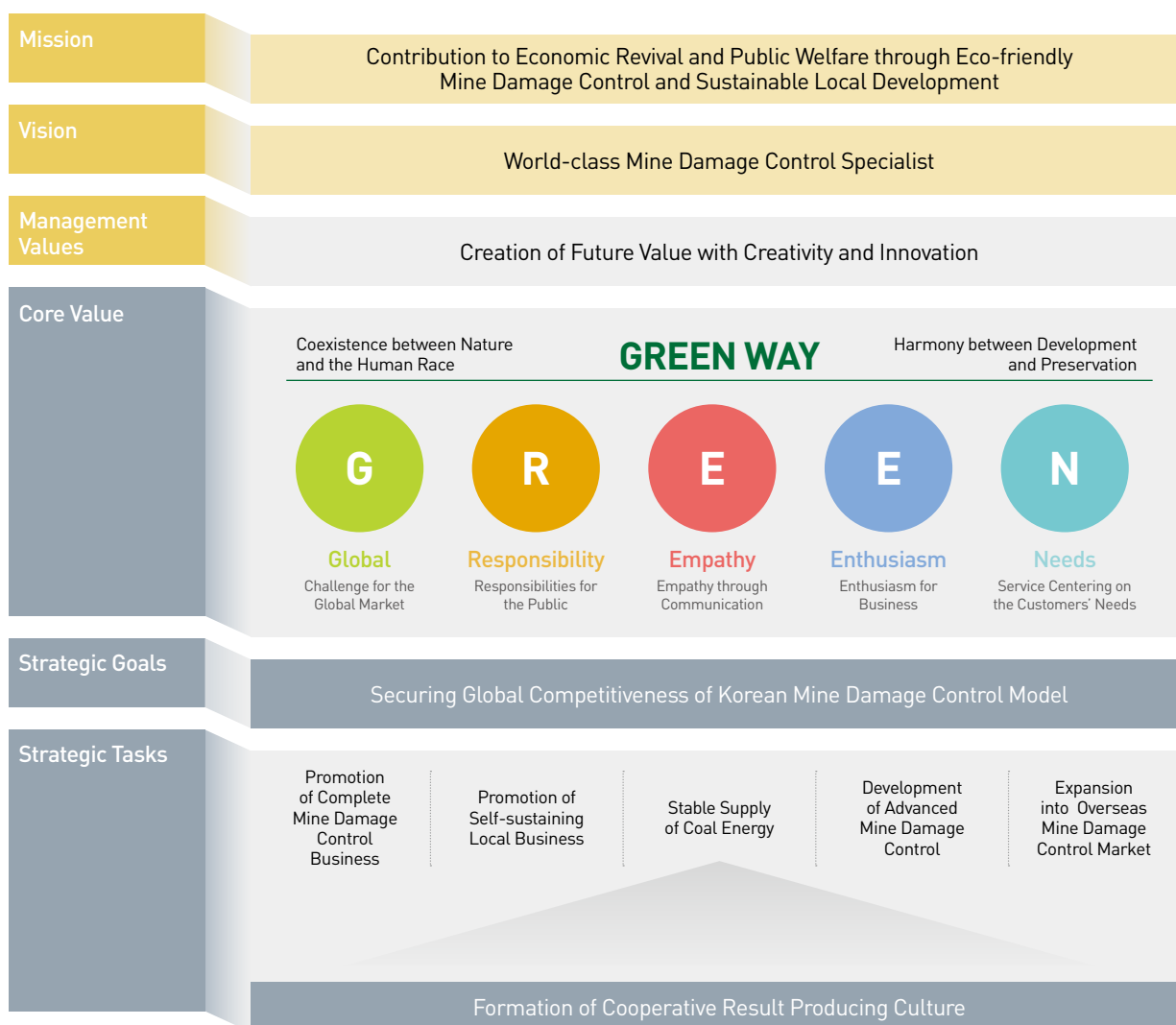
Sustainability Strategies

Mireco builds harmony between nature and the human race and a sustainable future through endless technology development and expansion of business. To respond to the rapidly changing mine damage control market and increasing attention to sustainability, Mireco proclaimed its vision of becoming a “Global Mine Damage Control Specialist” in 2012 and established a promotion road map for sustainability.

Vision and Strategies

Under the vision of growing into a “Global Mine Damage Control Specialist”, Mireco set the promotional directions of “Securing New Scope of Business through Increased Global Competitiveness of the Korean Mine Damage Control System” and “Globalization of Eco-friendly Mine Damage Control Technology as a Partner of Sustainable Resources Development”. Mireco also unified its goals in “Securing Global Competitiveness of the Korean Mine Damage Control Model”, and set 5 strategic tasks, detailed tasks, and sustainability detailed tasks to progress toward realizing its goals by working tirelessly on a company-wide scale.

Vision and Strategy System of Korea Mine Reclamation Corporation



GREEN WAY Core Value

Mireco promotes the spread of sustainable value, including the construction of a cooperative corporate eco system and social responsibilities of public corporations, while defining and internalizing Mireco's core values.



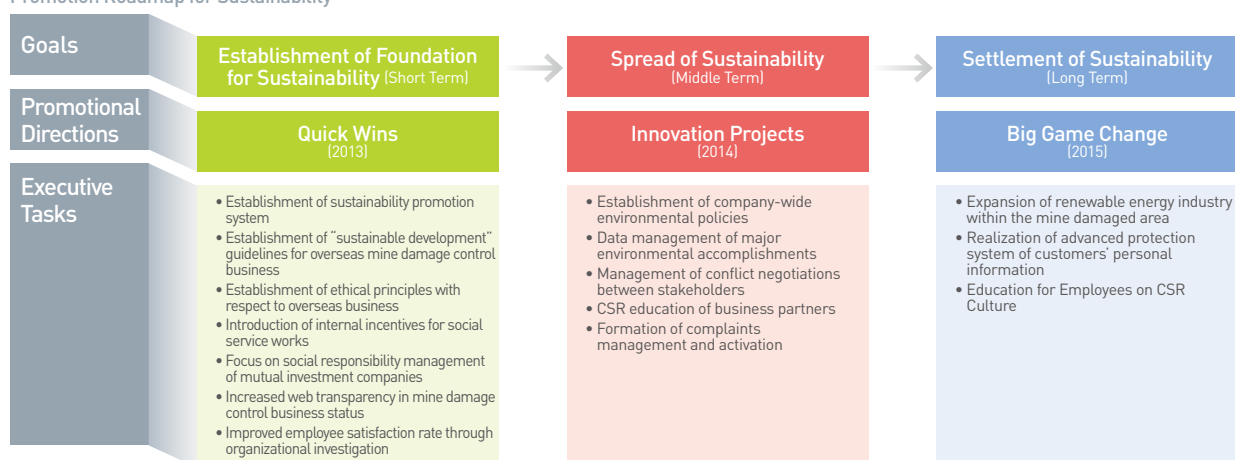
Establishment of Detailed Business Plans and Evaluation

Mireco established strategic tasks and annual business plans to carry out the strategic goals and assigns performance indicators to each department related to the tasks for the process's effective operation.

Annual Business Plans in Connection with the Strategic Tasks

Strategic Direction	Category of Business	Strategic Tasks	Business Plans of 2012 (76 Items)
Securing Future New Scope of Business through Strengthened Global Competitiveness of Korean Mine Damage Control System	Mine Damage Control Business	Promotion of Complete Mine Damage Control Business	Promotion of Eco-friendly Forest Ecosystem Restoration Business → 17 Tasks
	Local Promotion Business	Promotion of Self-sustaining Local Business	Formation of Joint Discharge System between Mutual Investment Companies → 11 Tasks
	Business Supplying Coal/ Coal Briquettes	Management of Stable Supply of Coal Energy	Trial Promotion of Supplying Coal Briquette Burners to Low-income Families → 4 Tasks
Globalization of Eco-friendly Mine Damage Control Technology as a Partner of Sustainable Development of Resources	Research Project of Mine Damage Vegetation	Development of Advanced Mine Damage Control Technology	Creation of Mineral GIS and Utilization → 6 Tasks
	International Mine Damage Control Business	Expansion into the Global Mine Damage Control Market	Joint Pilot Projects with Vietnamese Mineral Resources Corporation → 11 Tasks
Establishment of Institutional Foundation for Accelerated Cooperation and Construction of Performance-centered Organization Culture	Management Strategy	Construction of Cooperative, Results Producing Culture	Realization of Clean Mireco → 27 Tasks

Promotion Roadmap for Sustainability



Incorporation of Company-wide Strategies and Sustainability Management

Mine damage control and promotion of business in abandoned mines are a material part of Mireco's business and closely related to the core value of sustainability: Mireco intends to share its current value with the next generation, going beyond the difference in generations and areas by focusing on harmonious development between all areas. Mireco incorporated sustainable management in its company-wide strategies and blended sustainability strategic tasks with company strategies to strengthen the organizational responsibility for sustainability and establish a result producing foundation.

Governance

The Board of Directors is the supreme decision making agency of Mireco, consisting of 9 members including 4 executive directors and 5 non-executive directors under “The Law on Management of Public Bodies” and the articles of association. The chief director of the board is appointed by the Minister of Commerce, Industry, and Energy from the nominees proposed by the Executives Recommendation Committee, which consists of non-executive directors and external specialists, and holds an additional office as the chairperson according to Article 6 of the Board of Directors Operation Rules.

Constitution of Board of Directors and Current State of Affairs

Constitution of the Board of Directors

The executive directors and non-executive directors are appointed by the chief director and Minister of Commerce, Industry, and Energy respectively, and the post of an ex officio non-executive director is taken by the manager of the department in the Ministry of Commerce, Industry, and Energy that is managing mine damage control business. Mireco includes a minimum of 2 experts with sufficient knowledge and experience in the field of environment when appointing directors to faithfully carry out the role of the professional mine damage control agency.

Current Composition of Directors

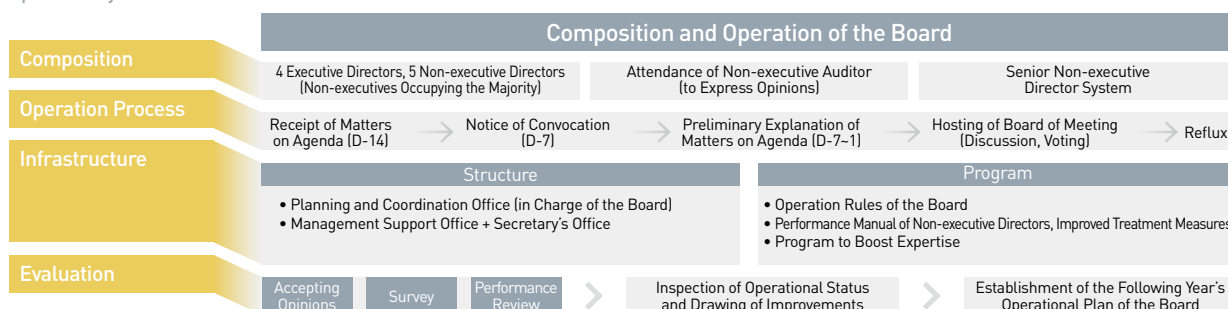
[As of May 7, 2013]

Category	Name	Gender	Post
Executive Directors	Kwon Hyuk In	Male	Chief Director
	Kim Jong Ryul	Male	Chief of Management Strategy Headquarters
	Kwon Hyun Ho	Male	Chief of Mine Damage Control Business Headquarters
	Cha Dong Rae	Male	Chief of Mining Area Promotion Headquarters
Non-executive Directors	Park Byung Chan	Male	Manager of Coal Industry in the Ministry of Commerce, Industry, and Energy
	Park Young Sang	Male	Honorary Professor of Media Information College of Hanyang University
	Son Dal Ho	Male	President of Korea Coal Association
	Leem Jae In	Male	Chief Director of Korea Refrigeration and Air Conditioning Assessment Center
	Park Jong Chan	Male	Vice Chairman of National Union of Mineworkers
Non-executive Auditor	Kim In Bae	Male	Member of a Political Party (Saenuri Party)

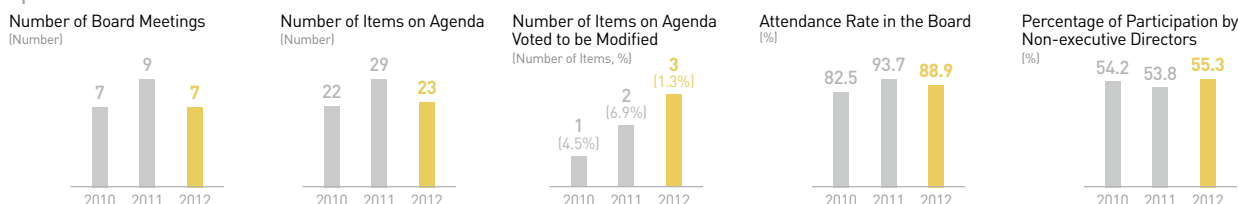
Operation and Reinforcement of Board of Directors

Mireco enhanced the deliberating and voting function of the board with reinforced preliminary review of agenda and faithful supply of information on current affairs. Mireco held 7 sessions of board of director meetings in 2012, reviewing 28 matters in the agenda and deciding 3 of the 23 matters to be modified through a vote. The board's resolution of matters is achieved by majority vote by the directors in registry, and members holding interests in the items on agenda are prohibited from participating in voting to guarantee fairness.

Operation System of the Board of Directors



Operational Result of the Board



Reinforced Utilization of Non-executive Directors' Expertise

The non-executive directors are specialists with expertise and experience in various fields. Mireco held a total of 5 sessions of non-directors conferences and discussion meetings and introduced the non-executive directors' department system to receive management consultation and proposals on a regular basis as part of the efforts to continually increase their performance.

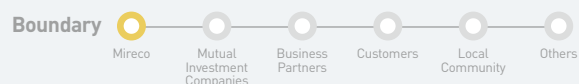
Utilization Record of Non-executive Directors Expertise

Category	2010	2011	2012
Management Consultation (Number of Cases)	-	-	1
Business Proposals (Number of Cases)	3	5	11
Business Proposals Accepted (Number of Cases)	3	3	8

Performance of the Board and Rewards

Mireco follows the results of the governmental management review under "The Law on Management of Public Bodies" and the internal regulations in terms of payment for the executive directors and post an announce of payments on its website. Payments are not made to the non-executive directors, but a minimal amount of activity expense that is necessary in the course of business is awarded.

Development of Auditing Activities Focused on Preventative Auditing



Context and Challenge

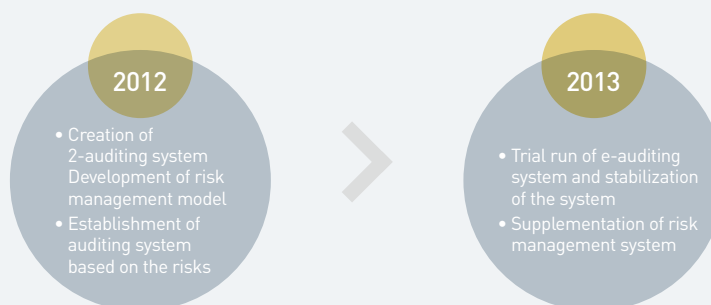
Mireco is striving to move away from the traditional auditing pattern of uncovering noncompliance with the laws and regulations and toward surveillance of the entire organization's achievement of management goals and risks. This is intended to prevent the violation of laws and regulations and improve the efficiency of business processes.

Our Progress

Mireco analyzed the management of auditing business, such as the auditing process, performance, and information and risk factors in all areas of business, and created an e-auditing system on a trial run to arrange a continuous monitoring system and early information system through investigating management scenarios. The e-auditing system created a risk pool of 365 cases of business risks and operates around 22 indicators of higher threat and frequency of occurrence. Mireco intends to operate a continual monitoring system to maximize the efficiency of its auditing business and to conduct a strategic audit.

In Mireco is aware of the importance of preventative methods of approach based on Principle 15 of the Rio Deceleration on Environment and Development. Accordingly, Mireco is removing threat factors in advance by dealing with the cause of environmental contamination in the course of business to stop contamination and subsequent damage.

Current Operation of e-Auditing System



Interviews of Stakeholders

Mireco aspires to promote management activities based on the various communications with the stakeholders. Continual communication with the stakeholders is made possible by identifying various stakeholders in and out of the organization and establishing communication channels for each group of stakeholders. The expectations and demands from the stakeholders are collected and reflected in the sustainability management strategies to be applied in the overall management activities. Mireco considers and collects stakeholders' opinions through continual communication with them.



Kim Jong Ryul Chief _ Mireco Management Strategy Headquarters

Mireco should establish a vision for long term development and continuously expand the scope of business for sustainable growth. To this end, all employees are required to be actively involved in the business, and the walls between different departments should come down for various cooperative efforts to achieve goals with zeal and motivation.



Ji won Hyun Secretary General _ Mireco Labor Union

Mireco's vision and strategies have gone through constant changes according to the term for each manager's office and management policies. This results in practical limits in sustainability and the establishment of a road map, requiring fundamental actions for real improvement. Furthermore, the corporation has a tendency to recognize the labor-management relationship as that of strategic partners rather than as equal stakeholders while excessive interference from the government undermines a potentially autonomous labor-management relationship. The change of perception from the corporation on the labor-management relationship and the change of environment guaranteeing autonomous labor-management relationship will help realize the continual coexistence between the labor and management for sustainable growth.



Seon Gil Woong Deputy Director _
Department of Coal Industry, Ministry of Commerce, Industry, and Resources

The Issues of asbestos, dust, and land subsidence have recently risen in a rehabilitated environment. Such issues are not recognized by the general public, but have substantial impact on the lives of local residents. Mireco should strive to prevent the secondary and the third round of damage through sincere fulfillment of its environment rehabilitation responsibility and earn the public's trust through these efforts.



Won Jin Young Director _ Sungaewon, Child Care Institution

Mireco is aggressively engaging in welfare projects required by the local society by participating in the rehabilitative business of ruined areas, supplying aid for the promotion of those areas, and communicating with the local residents. I hope Mireco will continue to carry out business projects for future generations through the promotion of business conducted under a long-term management philosophy.



In Hyung Jin CEO _ SANHA E&C co., Ltd

Mireco's business is not an ongoing process, but limited to the restoration of definite resources, thus giving rise in the interests in the business direction after the completion of the rehabilitation projects. The development of independent and unique mine damage control technology is necessary to secure world-class technical competitiveness while working with business partners to expand into the overseas market will ensure opportunities for mutual growth.



Mok Dong Gyun CEO _ Jecheon DongWon Coal

Coal resources are losing general demand in the market due to climate change, etc. Mireco is best advised to maintain a collaborative relationship with business partners by paying continual attention to the coal industry and establishing ways to lengthen the life of coal manufacturers. In addition, keeping in mind the limitations of the domestic coal industry, it would be preferable for the corporation to steadily focus on expanding into the overseas market, particularly Mongolia and Uzbekistan, to set the stage for coal manufacturers' increased chance of business.



Jeong Gi Young Head of Operations _ Former Mungyeong Leisure Town co., Ltd

Mireco is the only national mine damage control agency that not only performs thorough pre-to-post management, but also contributes to the invigoration of the local economy through the establishment of alternative industry bodies and financing business in abandoned mine areas. By including the restoration of ruined abandoned mining areas as part of its business, Mireco will hopefully transform itself into a world-class mine damage control specialist by committing to environmental preservation and the rehabilitation of natural habitats through the establishment and development of advanced technology with higher rehabilitative effect and lower cost.



Kamaruddan Bin Abdulla Depute Director _ Minerals and Geoscience Department

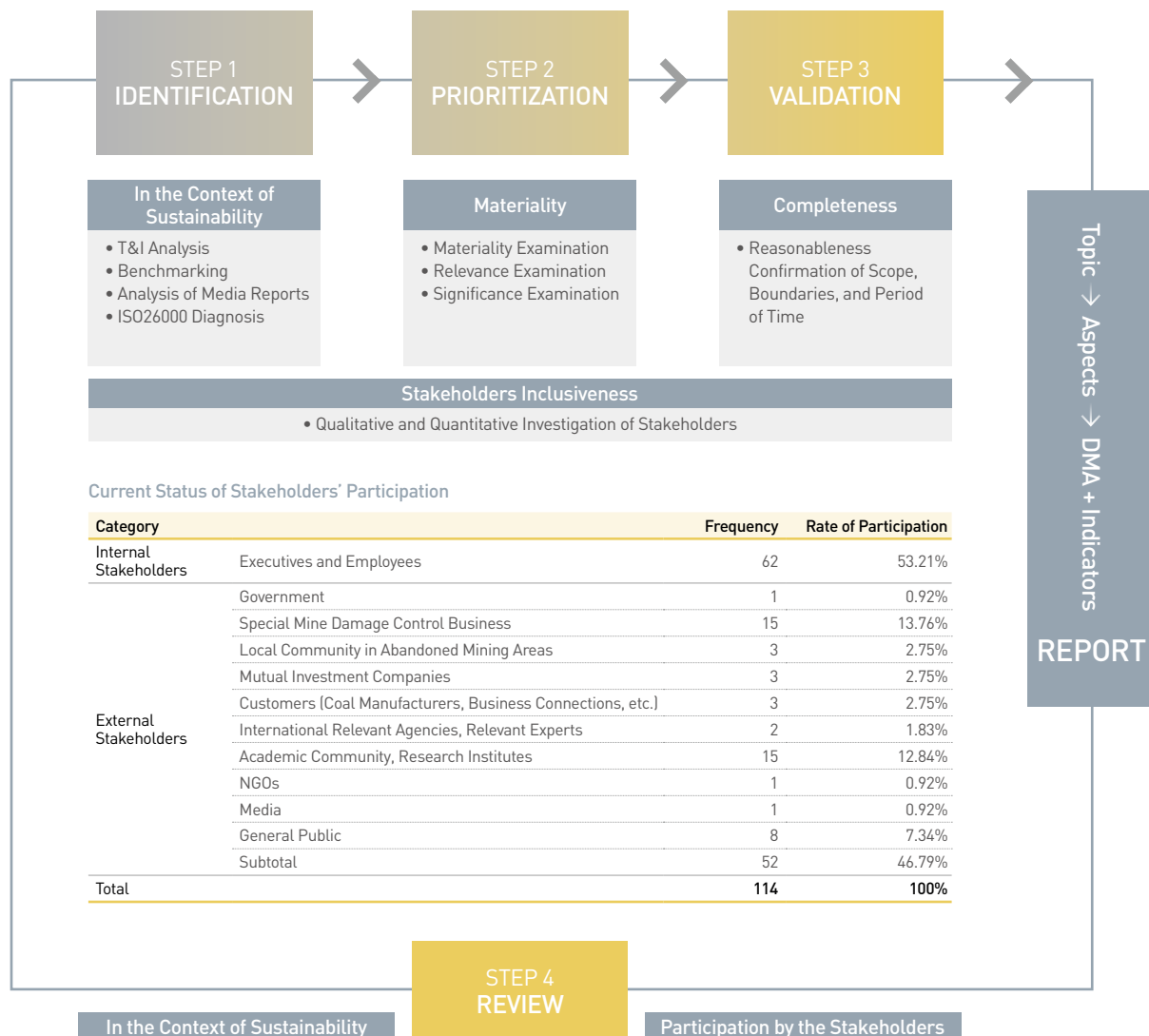
Mireco is playing a major role in the growth of mine damage control business in many countries. It faces this problem by sending the corporation's technology and specialists out into the world. Many countries such as Malaysia, Indonesia, and Vietnam are benefitting from Mireco's operating programs. In the course of conducting overseas business, it is imperative to gain trust from the stakeholders through transparent business activities for the corporation's sustainable growth. Furthermore, an understanding of the applicable country's laws, culture, and commercial practices is crucial while observance of the laws and rules of the country is a must.

Identification of Major Issues and Report Boundaries

Mireco drew major sustainability issues by operating a significance evaluation and identifying report boundaries according to the relevance and materiality deciding process suggested by GRI G4 and ISO 26000.

Significance Evaluation Process

Mireco conducted an analysis of the internal and external environment based on the sustainability context, materiality, completeness, and stakeholder inclusiveness to draw major sustainability issues to be considered by the management.



STEP 1

Trend & Impact Analysis

Major issues for Mireco were drawn after a survey of 26 executive and employees was taken in the areas of Trend/Impact/Internal Capabilities in regard to major sustainability issues.

Analysis of Relevant Corporations

Sustainability reports of 5 domestic and international corporations were analyzed in the 8 fields of strategy, governance, economy, environment, labor, welfare, society, and goods for the drawing of major issues.

Analysis of Media Reports

2,075 articles of news reports published over the course of 4 years from 2009 through 2012 were analyzed to understand how Mireco's major sustainability issues are handled by the media for the drawing of relevant issues.

Diagnosis of ISO 26000 Performance Level

The ISO 26000 Diagnosis Tool developed by the Agency for Technology and Standards was used to compare the corporation's performance level in social responsibility management to the diagnosed performance level of 2012 for the drawing of relevant issues, and the focus was on identifying and improving weak areas.

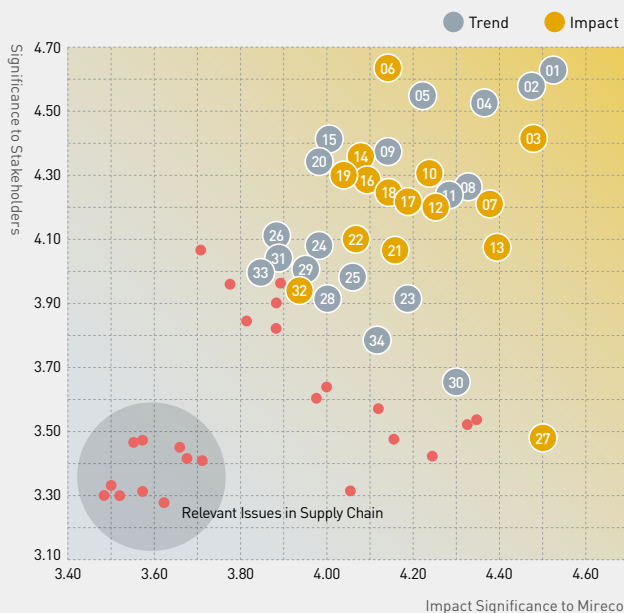
Participation by Stakeholders

Mireco categorized the stakeholders into groups of executives and employees, local communities, business partners, customers, labor union, mutual investment companies, and overseas relevant agencies as the core groups of stakeholders according to the legal, financial, and operational responsibilities in the corporation's management and the extent of impact. It conducted an in-depth interview of 8 stakeholders representing each group. Mireco performed a survey of 114 internal and external stakeholders for 8 days from June 13, 2013 through June 20, 2013 to use as the supporting document for the drawing of major issues in the materiality evaluation and determined the final issues to be reported.

STEP 2

Result of Materiality Evaluation

34 major issues (15 trend and 19 impact) scoring an average of 3.95 or above in the materiality evaluation were selected out of 71 relevant issues drawn from the Trend & Impact analysis, analysis of relevant corporations, analysis of media report, performance diagnosis of ISO 26000, and participation by stakeholders. The issues drawn are reflected and reported in the table of contents and sustainability management strategies.



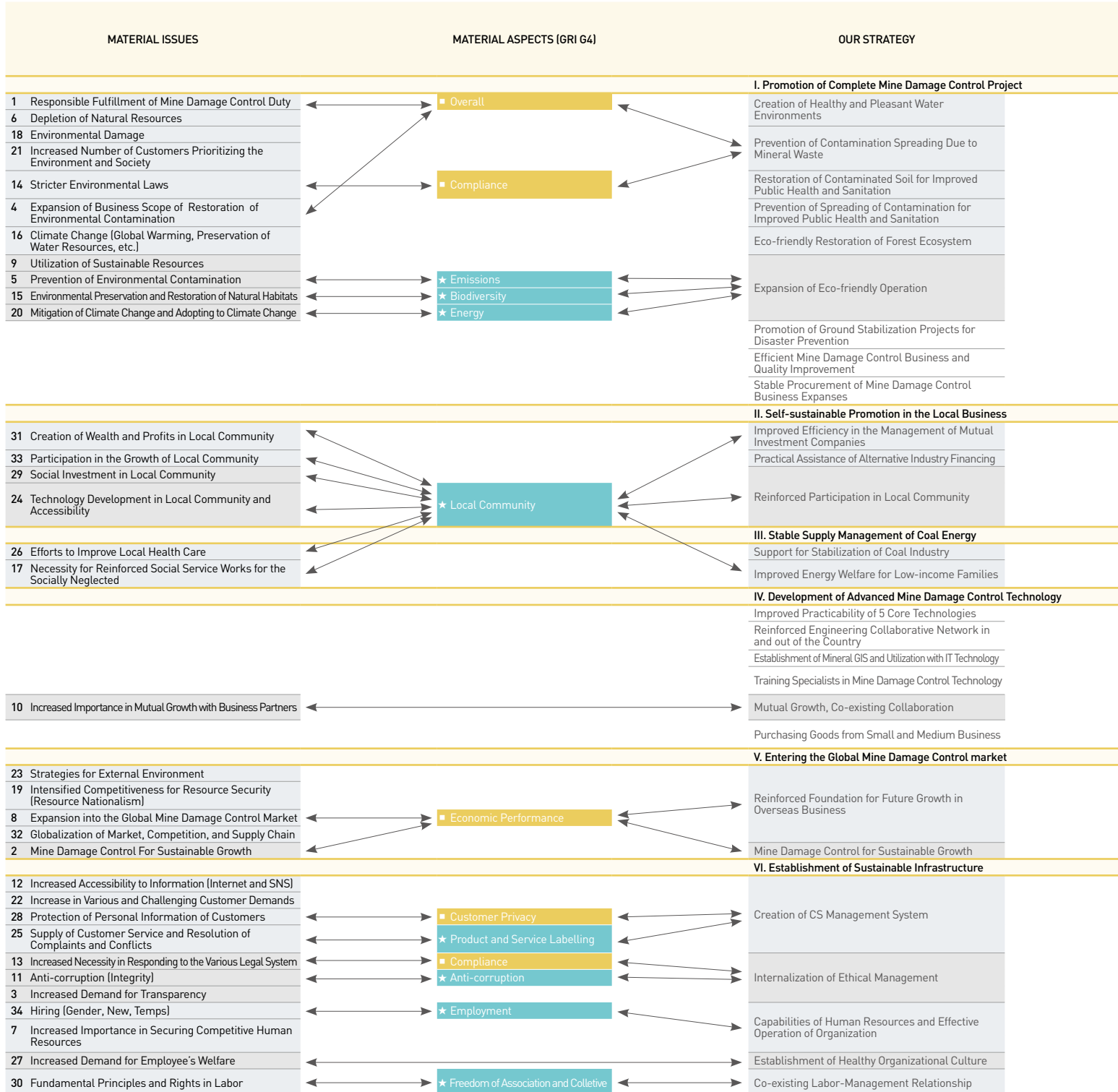
- 01 Responsible Fulfillment of Mine Damage Control Project
- 02 Mine Damage Control for Sustainable Growth
- 03 Increased Demand for Transparency
- 04 Increased Scope of Business in the Restoration of Environmental Contamination
- 05 Prevention of Environmental Contamination
- 06 Depletion of Natural Resources
- 07 Increased Importance in Securing Competitive Human Resources
- 08 Increased Expansion in the Global Mine Damage Control Market
- 09 Sustainable Use of Resources
- 10 Increased Significance in the Mutual Growth with the Business Partners
- 11 Anti-corruption (Integrity)
- 12 Improved Accessibility to Information (Internet, SNS)
- 13 Increased Necessity for Responding to Various Legal Systems
- 14 Tightening of Environmental Laws
- 15 Environmental Preservation and Restoration of Natural Habitats
- 16 Climate Change (Global Warming, Preservation of Water Resources)
- 17 Reinforced Social Service Works for the Socially Neglected
- 18 Environmental Damage
- 19 Intensified Competitiveness for Resource Security (Resource Nationalism)
- 20 Mitigation of Climate Change and Adapting to Climate Change
- 21 Increased Number of Customers Prioritizing the Environment and Society
- 22 Increase in Various and Challenging Customer Demands
- 23 Strategy on the External Environment
- 24 Development of Local Community Technology and Accessibility
- 25 Support of Customer Service and Resolution of Complaints and Conflicts
- 26 Efforts in Improving Local Health Care
- 27 Increased Demand for Employees' Welfare
- 28 Protection of Personal Information of Customers
- 29 Social Investment in Local Community
- 30 Fundamental Principles and Rights in Labor
- 31 Creation of Wealth and Profits in Local Community
- 32 Globalization of Market, Competition, and Supply Chain
- 33 Participation in the Growth of Local Society
- 34 Hiring (Gender, New, and Temps)

※ Mireco added relevant issues in Supply Chain, which was recently supplemented in GRI G4, to the issues for materiality evaluation. The relevant issues in Supply Chain were added as an item for qualitative evaluation in the category of environment, welfare, labor, and society under the materiality evaluation, but its significance average fell behind that of other issues.

Material Aspects

■ General DMA

★ General + Specific DMA



Sustainability at MIRECO

BOUNDARIES							Performance Indicators	Units	Performance in 2011	Performance in 2012	Pages
Internal MIRECO	Mutual Investment Companies	Business Partners	External Customers	Local Community	Etc.						
	●		●		●		Quality of outlet water in comparison with inlet water	PI	0.483	0.464	20
							Soil Contamination	Points	0.100	76.9	
	●		●		●		Rate of Trees Rooted	%	89	94	22
	●		●		●		Special Forestation Rate	%	9.2	11.3	24
	●		●		●						26
	●		●		●						28
	●			●			Greenhouse Gas Emission	tCO ₂ eq	3,984	3,021	30
							Electricity Consumption	GJ	5803.05	5672.67	
							Mine Damage Prevention Funds Result of Charges	million won/Collection Rate	143.8 / 89	2190/78	
	●		●		●						34
	●		●								36
	●			●							38
	●	●					Loan Assistance in Alternative Industries	million won/number of businesses	175 / 17	233 / 44	42
	●		●	●							44
	●			●	●		Social Contribution Activities	Number of Participants, Number of Activities Conducted, Million won	609 / 103 / 4.5	614 / 123 / 7.2	45
	●			●			Demand/Supply of Anthracite	Thousand Tons	2,365 / 4,085	2,424/4,052	48
	●			●			Provision of Briquette Voucher	million won/number of households	151 /89,172	1/594	50
	●		●				Budget Allocated for Collaboration in R&D	million won	33	45	54
	●		●	●			Level of Technological Competence in Comparison with Advanced Countries	%	763	847	56
	●		●								57
	●		●	●			Number of Participants in Professional Expertise Training Course	number of people	85	96	59
	●		●								61
	●			●			Amount of Expenditure for Purchase of Products from Small/Medium Businesses	million won	77.9	82.5	63
	●		●	●			Increase in the Sales of Overseas Business	million won	14.9	18.7	66
	●			●							68
	●	●	●	●	●		Result of Customer Satisfaction Survey	Points	98.2	98.3	72
	●	●	●	●			Mireco Ethic Index (MEDEX)	Points	76.91	80.56	74
	●						Number of Employees	Male/Female, Regular/Temporary	162.5/ 46.5, 193/10	176/56, 207/15	76
							Job Turnover Rate	%	4.23	0	
							Number of Educational Hours Designated per Employee		16.62	27.35	
	●						Satisfaction Level of Employee Benefit Package	%	97		78
	●						Number of Employees Affected by Accidents/ Accident Rate	%	0	0	80

Promotion of Complete Mine Damage Control Project

The forest of **mireco** is
always green.

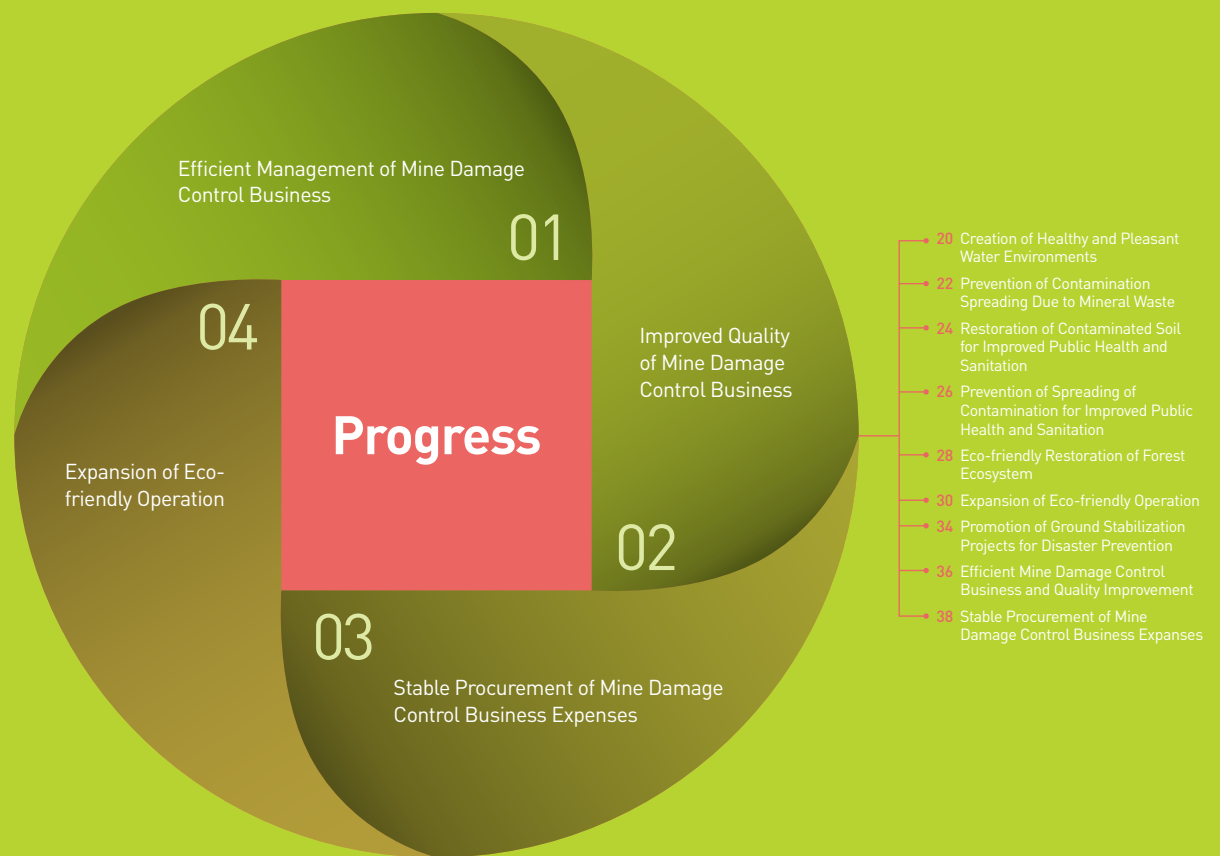


Mireco analyzes, removes, and prevents threat factors that follow mine development to public safety and health to realize "Clean Mines" through the establishment of sustainable green living spheres and eco-friendly mine development as mine damage control is the crucial part of its business.

Mireco eradicates causes of mine damage and restores damaged natural environments to protect the public health, improve the living conditions of local residents, and invigorate the local economy.

Issues

- Responsible Fulfillment of Mine Damage Control Duty
- Increased Domain for Environmental Rehabilitation Business
- Prevention of Environmental Contamination
- Depletion of Natural Resources (Mineral Resources, Fossil Fuel, Etc.)
- Sustainable Usage of Resources
- Stricter Environmental Rules
- Environment Preservation and Restoration of Natural Habitats
- Climate Change (Global Warming, Preservation of Water Resources, Etc.)
- Environmental Damage
- Mitigation of Climate Change and Taking Action



Key Performance Indicators

Key Performance Indicators	2010	2011	2012	Office in Charge
Quality of Inlet Water in Comparison with Outlet Water [Water Pollution Level: PI]	0.508	0.483	0.464	Ecology Restoration Office
Soil Contamination (Points)	0.239	0.100	76.9	
Rate of Trees Rooted (%)	86	89	94	Mountain Reclamation and Ground Stability Office
Special Forestation Rate (%)	7	9.2	11.3	
Mining Damage Prevention Funds (Hundred million won/ Collection Rate)	127.4 / 42	143.8 / 89	219.0/78	
Electricity Consumption (MWh)	1,625	1,611		Administrative Support Office
Greenhouse Gas Emission (tCO ₂ eq)	5,065	3,984	3,021	

Next Step

Mireco is actively responding to changing environmental conditions through the control of water quality, treatment of mineral waste, restoration of contaminated soil, etc. Mireco is focusing on the development of practical technology useful for field operation as well as technology with great promise that would be high in demand. Mireco is conducting research on the development of mine damage control technology to deal with the important issue of shale gas. The corporation will carry out continuous research and development efforts of relevant technology in the future and maximize its mine damage control activity by transferring part of its work to small and medium businesses.

Creation of Healthy and Pleasant Water Environments



Context and Challenge

Occurrence of Acid Mine Drainage

Underground water can inundate mines for a number of months or years after the closing of the mine, causing leakage of mine water and surrounding outflow water which contains high concentrations of heavy metals. This then results in the contamination of water and the water ecosystem in the surrounding area. It also produces a yellow boy effect with yellow and reddish brown deposits and a white-sediment effect, making abandoned mining areas seem much more unattractive. Mireco is therefore actively running water improvement projects to improve the quality of such polluted water.

Lately, social concern for the environment is rising due to climate change. Global warming and the local residents' demand for the environment is also increasing, raising the importance for the implementation of environment improvement programs in abandoned mine areas.

Average Amount of Mine Water Generated between 2010~2012

[Unit: Number of Items, m³/d]

Category		Gyeongin Province & Incheon Area	Gangwon Province	Chungcheong Province	Jeolla Province	Gyeongsang Province	Total
Status of Leakage	Mineral Water	19.0	135.0	77.7	45.0	121.0	397.7
	Amount of Leakage	939.7	121,864.7	3,019.0	3,069.0	18,889.7	147,782.0
Polluted Water	Mineral Water	2.0	92.7	20.3	21.7	41.7	178.3
	Amount of Leakage	314.3	80,371.7	1,734.3	1,852.7	10,105.3	94,378.3

Yellow-Boy Effect



White Sediment Effect



Our Progress

Systematic Project Execution

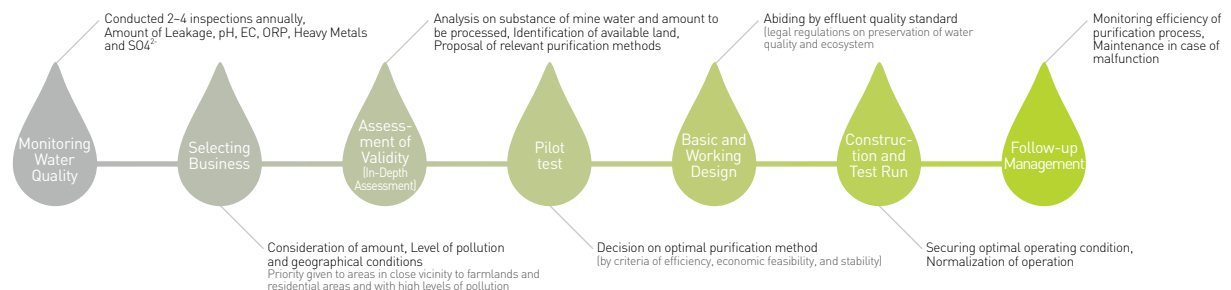
Water pollution in abandoned mine areas is a long-term process. The pollution load, objective of water purification, purification facilities site, and economic feasibility should all be taken into consideration in deciding the treatment method. Mireco regularly monitors the amount and quality of the water discharged from the mine and analyzes the characteristics of the water for different mines to use the data for a sequential improvement program of the water quality according to the order of priorities. The number of water purification facilities established so far is 46 in total, and the corporation strives for the efficient operation and management of these facilities.

Current Status of National Water Purification Facilities

[Unit: Number of Facilities, m³/d]

Category		Gangwon Province	Chungcheong Province	Jeolla Province	Gyeongsang Province	Total
Status of Leakage	Number of Facilities	29	2	5	10	46
	Amount of Leakage	36,343	1,140	954	4,758	43,195

Execution Process of Mine Water Purification Project



Reinforced Communication with Stakeholders

Mireco activated a communication network with stakeholders and established cooperative relationships with the local governments and residents (Committee for the Sale of Land) for the effective operation of projects, resulting in the early procurement of the site to build water purification facilities. The corporation also signed an MOU with the Korea Water Resources Corporation and obtained the site to build water purification facilities at no cost. Likewise, Mireco holds briefing sessions for local residents according to different stages of business to reflect the opinions of the local residents and governments in the business plan, improving the credibility of the business and providing modern comforts to residents.

MOU Signing



Briefing Sessions for Local Residents



Ok Dong Mine



Dang Yang Coal Mine



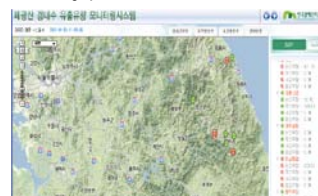
Establishment of New Low Cost and High Efficiency Facilities

Mireco conducted continuous research to find ways to boost the efficiency of purification facilities and improvements for the enhancement of water treatment technology, succeeding in the introduction of a new and improved method of operation in 2012. The construction of eco-friendly natural purification facilities led to a reduction in water pollution and improved living conditions for local residents in abandoned mine areas.

Efficient Management of Purification Facilities

Mireco introduced the monitoring system of the amount of outflow water and remote control monitoring system for the adequate operation and management of purification facilities and the constant monitoring of the fully functionality of the facilities. Furthermore, the corporation brought in an air diffuser using eco-friendly solar energy to improve the quality of outflow water to accommodate the more demanding environmental needs of the residents.

Monitoring System of the Amount of Outflow Water



Remote Control Monitoring System

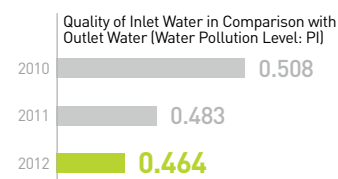


Next Step

Results of Decrease in the Water Pollution Level

Mireco assigns a manager in each water purification facility for their responsible management and follows the standards of discharge for all facilities in accordance with the "clean areas" set by the laws on the water quality and water system preservation. Through such professional and thorough management efforts, the water quality of inter water in comparison with outlet water is improving annually. Mireco will strive to respond to the changing environmental conditions involving climate change and depletion of water resources in the future with the construction and management of effective facilities and technology development.

Comparison Between Before the Facilities Improvement and After



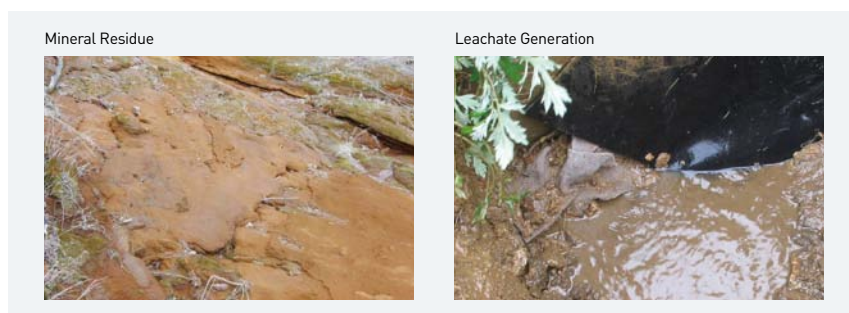
Prevention of Pollution Dispersion Due to Mineral Waste



Context and Challenge

Current Status of Mineral Residue Generation

There are 5,396 operating, resting, and abandoned mines in the country: 4,996 of which are regular mines and 400 are coal mines. The mines can also be classified as 2,166 metal mines and 2,830 nonmetal mines. Metal mines are the main source of mine damage and incorporate the process of concentration to retrieve useful minerals from mined ores and rocks. The micro material produced in this process is called mineral residue. Mineral residue contains harmful and high potency heavy metals and is a major source of heavy metal pollution in the soil, water systems, and crops in the mining areas.



Our Progress

Restorative Measures and Methods

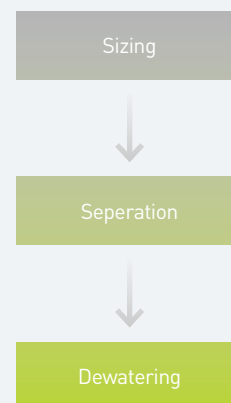
The Isolation Reclamation Method

The Isolation Reclamation Method physically and chemically isolates the mineral residue from the outside to reclaim, pile, and mud-cap residue by installing barriers such as washing prevention facilities, barrier walls, or storm water detention facilities in mineral residue dumps. There is a higher chance of generating leachate when the mineral residue comes in contact with the external environment (water, oxygen, etc.), therefore water barriers for chemical isolation are built. The Isolation Reclamation Method is standardized in its construction method and stops the generation of leachate at its root, but there is a chance that it may cost more in business expenses according to the depth and amount of mineral residue in mineral residue dumps.

Solidification/Stabilization Method

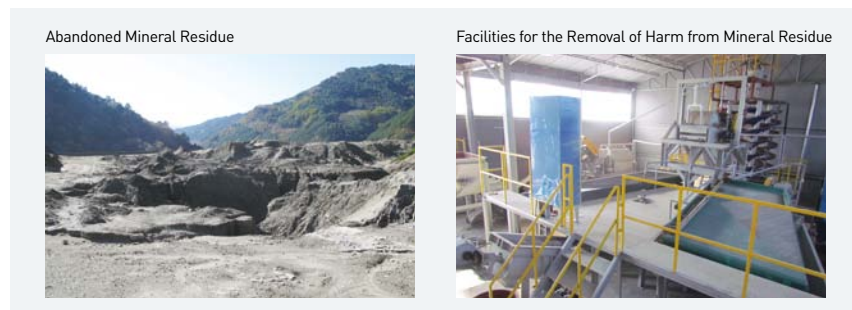
The Solidification/Stabilization Method uses the physical and chemical reaction resulting from adding chemicals to mineral residue to minimize the travelling and liquation of the pollutants. This method is simple, economic, and suitable in the treatment of harmful heavy metals compared to other methods, but insecure in guaranteeing long term stability according to the environmental changes. The injection and effective mixing of the chemicals when dealing at the original position also poses a challenge. Combining the Solidification/Stabilization Method with the Isolation Reclamation Method or Underground Filling Method can help supplement this method's weaknesses.

Physical Process of Concentration

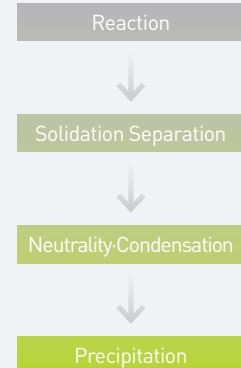


Removal of Harm Method

The Removal of Harm Method separates and removes harmful heavy metals from mineral residue through physical selection or chemical leaching. The eco-friendly Removal of Harm Method has no danger of secondary contamination. It can fundamentally remove harmful heavy metals, and the mineral residue can then be recycled in the fields of civil engineering or construction or applied in soil purification projects. The recovered valuable metals can also be recycled.



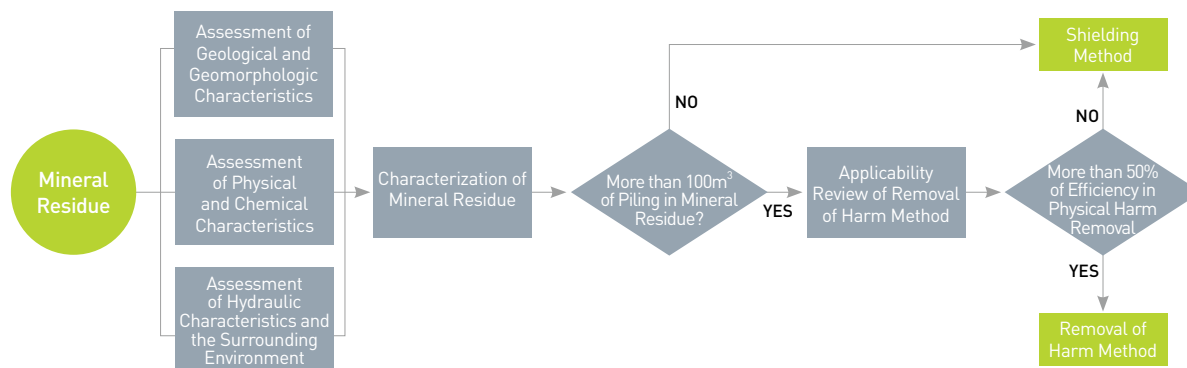
Process of Chemical Leaching



Selection of Treatment Methods of Mineral Residue

The cases with a 50% physical harmless rate or higher, as determined through the application of the harmless technology feasibility test of mineral residue, will be subject to the Removal of the Harm Method while others under 50% on the scale will be subject to the Shielding Method of treating the mineral residue.

Selection Flow Chart of Treatment Methods through the Characterization of Mineral Residue



Next Step

Development of Shielding Method Suitable for Mineral Residue Dumps

The Mireco Mine damage control technology institute recently suggested the shielding method using low quality betonies mixed soil as the standardized technology suitable for the mineral residue dumps through continuous field practical experiments. The shielding method using low quality betonies has a higher efficiency in shielding, and it is economic and effective in constructability with a water quality of pH7. The corporation will work closely with the Mine Damage Control Technology Institute and continue to promote the mine damage control business.

Restoration of Polluted Soil for Enhanced Health and Sanitation



Context and Challenge

Results of Mine Damage Control Projects of Abandoned Asbestos Mines

Mireco carries out contaminated soil restoration business for the reduction of harm to the local residents' health in the surrounding areas of abandoned asbestos mines, which are home to asbestos victims, and secures the safety of workers during the operation. The company calms the health concerns of the residents resulting from the scattering of asbestos through the operation of the restoration verification and standby monitoring program.

Categories of Asbestos

White Asbestos



Blue Asbestos



Brown Asbestos



Our Progress

Detailed Survey of Mining Sites of Abandoned Asbestos Mines

There are a total of 38 asbestos mines in the country, and 29 mines are in need of mine damage control. Mireco invested 16.8 billion won in 2012 to survey, plan, and operate a part of the restoration projects in 13 of the mines

Serpentine Ore Body

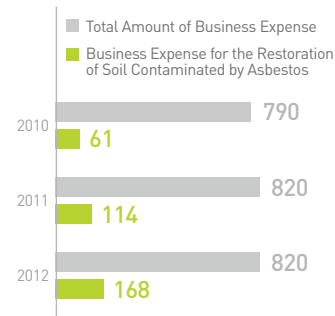


Risk Examination



Mine Damage Control Business Expenses, Annual Results of Asbestos Business Expenses

(Unit: million won)



Current Status of National Abandoned Asbestos Mines

(Unit: Number of Facilities)

Total	Chungcheongnam-do	Gyeonggi-do	Gyeongsangbuk-do	Chungcheongbuk-do	Gangwon-do	Jeollanam-do
38	25	4	3	2	2	2

Establishment of Efficient Promotional Foundation for Restoration Project of Abandoned Asbestos Mines

Mireco revised the consent form for the restoration projects for the effective promotion of soil restoration business of asbestos mines, resulting in the improvement of the collection

rate, while hosting briefing sessions and conferences for the residents to resolve the conflicts between the corporation and the local governments and residents. In addition, customized asbestos practical education was provided to the employees in the headquarters and local branches to broaden the understanding of expert knowledge and governmental policies on asbestos, increasing their ability to respond to public complaints. Particularly, a lump sum ordering of large-scale planning and construction of asbestos mines shortened the period of projects, preventing delay of business and saving costs to help Mireco fulfill its responsibilities as a public corporation.

Actual Cases of Restoring Contaminated Soil in Abandoned Asbestos Mines



Education for Employees in the Field on Asbestos

Mireco improved the employees' ability to respond to public complaints by providing them with education to learn expert knowledge, policies, and laws on asbestos (2 occasions, participation by 43 employees).

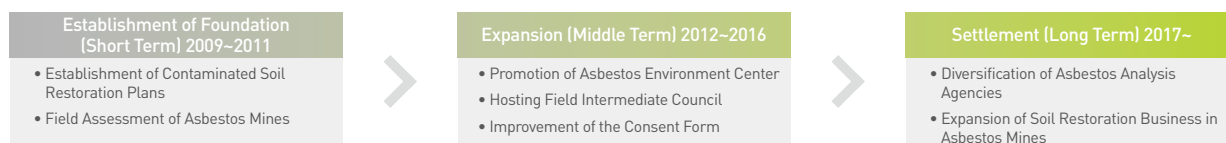


Next Step

Zero Spreading of Asbestos

Mireco tightened the standard by using soil whose heavy metal soil contamination risk is below 50% and in which asbestos was not detected in its cover materials: this ensures zero spreading of asbestos in soil restoration business places of abandoned asbestos mines. Even after the completion of soil restoration projects, the corporation created reinforced risk evaluation and verification report of the projects for the local residents and farmers and also designated and operated the corporation as an asbestos environment center to preemptively respond to the Asbestos Safety Control Act. The corporation will continue to create additional profits by testing the soil and stand-by monitoring in natural locations of asbestos to secure and bolster its global competitive edge in the soil restoration business of abandoned mines as a public corporation in the field of mine control damage business.

Middle and Long Term Management Roadmap for Zero Spreading of Asbestos



Prevention of Pollution Dispersion for Enhance Public Health and Sanitation

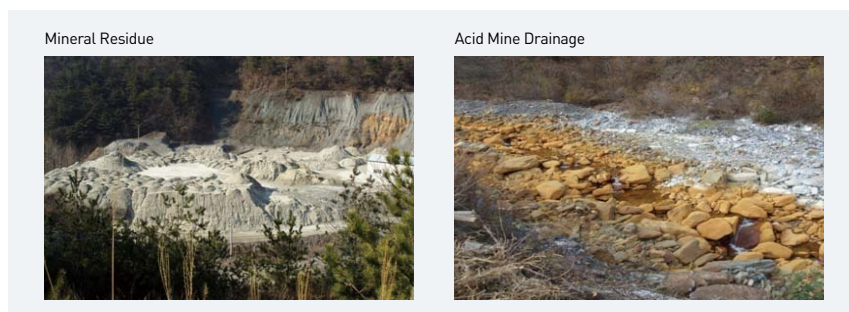
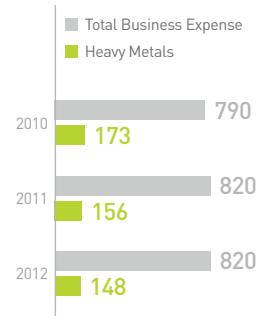


Context and Challenge

The main source of soil contamination in abandoned mine areas is mine debris, mineral residue, acid mine drainage, and leachate. This contamination is spread by the scattering caused by wind, use of agricultural water, periodic flooding of rivers, and the collapse of mineral residue dumps. The fact-finding survey of mine damage revealed that 762 mines out of all 2,089 abandoned metal mines are in need of soil restoration projects. Soil contamination restoration business in abandoned metal and asbestos mines is currently in progress, and a total of 274ha of soil restoration projects in 52 mines has been completed so far.

Soil Restoration Cost in Comparison to the Total Mine Damage Prevention Business Expense Annual Results of Business Expense (Abandoned Metal Mines)

(Unit: Hundred million won)



Our Progress

The soil restoration projects in abandoned metal mine areas consist of 3 stages of detailed investigation, demonstration test, and working design and execution for the purpose of systematic promotion of projects, increasing the continuity and efficiency in each stage.

Detailed Investigation of Contaminated Soil Restoration

Detailed Investigation make up the first stage of soil contamination restoration business that involves the investigation of the past history of mine developments and geological features surrounding the mines, calculation and analysis of the major contaminants' geochemical characteristics, soil contamination level, quality of contaminated soil, and selection of restoration objects providing crucial information to the establishment of restoration plans. In addition, pre-treatment measures of the confirmed source of contamination are drawn during the planning stages of the restoration projects. This prevents potential contamination after the restoration by blocking the routes of diffusion.

Demonstration Test and Working Design

Testing involves a process of the characteristic analysis of the pollutants in geochemical and the soil in physicochemical terms and the selection of the types of stabilizers and degrees of stirring to result in the lowest levels of toxicity and solubility for the choice of optimum restoration methods. After the selection of the most eco-friendly and cost-effective stabilization method following the demonstration test, a selection of the best soil dressing method (mud capping, soil exchange, and installation of blocking layers) is made during the stage of drawing a working design in consideration of the level of pollution in the surface soil in each lot, current usage of land, and agricultural drains.

Collection of Deep Soil Sample



Collection of Surface Soil Sample

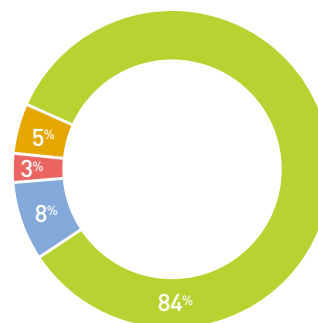


Soil Contamination Restoration Business

The current cost of soil contamination restoration business is approximately 267 million won per ha, 3% of which is spend on the detailed investigation, 8% on the demonstration test and working design, 84% on the restoration business expenses, and the remaining 5% on the compensation for the prohibited production and distribution of contaminated produce and the generation of idle farmland due to the restoration projects. Mireco holds field meetings for the effective promotion of the business to provide organic feedback between the design and construction companies and the headquarters and local branches. The corporation also introduced the Soil Examination System, inviting participation from the local residents (farmers or land owners) in the process of selecting the borrow pits and construction to improve the customer satisfaction level.

The development of specialized equipment (loader excavators) for soil restoration projects is contributing to the improved construction efficiency by increasing the stirring effectiveness of stabilizers in high-angled mountain farmlands with high concentration of gravel.

Budget Composition of Soil Contamination Restoration



Total Soil Contamination Restoration Business Expense	267,025 thousand won/ha
Soil Contamination Restoration Business Expense	224,410 thousand won/ha
Demonstration Test and Working Design	20,742 thousand won/ha
Compensation	13,085 thousand won/ha
Detailed Investigation	8,788 thousand won/ha

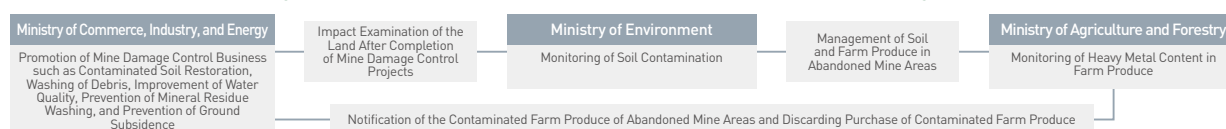
Comprehensive Prevention and Follow-Up Programs

The farmland deemed inadequate under the heavy metal safety test of the farm produce from the abandoned mine areas by the Ministry of Agriculture and Forestry can benefit from the Idle Farmland Compensation Program by Mireco to protect the farmers of inadequate farmland, thus preventing the production and distribution of polluted farm produce. In addition, a comprehensive maintenance program is operated for 5 years after the completion of the projects to test the stability and durability of the applied methods in the completed lots. The maintenance consists of a restoration verification examination and the continuous follow-up inspection of the soil and the produce annually. This is done to protect the health and sanitation level of the public and invigorate the local economy by pursuing the health of the residents and farmers and consumption of healthy farm produce.

Increased Efficiency of Contaminated Soil Restoration through Cooperation with Various Agencies

Mireco works with relevant agencies such as the Ministry of Commerce, Industry, and Energy, Ministry of Environment, and the Ministry of Agriculture and Forestry, mine damage control businesses participating in the investigation, planning, and construction, managers in the corporation's headquarters and local branches in its promotion of soil contamination restoration projects. The relevant agencies share and discuss the business targets and promotion status in semi annual policy conferences and works to provide an organic response to current affairs. The mine damage control businesses in charge of investigation, planning, and construction, persons in charge of the investigation and planning, and local branch managers in charge of construction communicate through meetings, as well as intermediate briefings in each field of service for the optimum promotion of the business in close connection with the field.

Current Status of Government Agencies in Promotion of Contaminated Soil Restoration and Persons in Charge



Next Step

Most contaminated soil restoration projects in abandoned mine areas are done through the stabilization + soil dressing method. There is a limit to this method since the complete removal of heavy metals from farmland is difficult, and high quality manure is necessary. The demand for the development of new methods is rising, and Mireco strives to develop the new methods to diversify the restoration methods for soil contaminated with heavy metal to realize the complete removal of heavy metals and maintenance of farming function for the land.

Restoration of Eco-friendly Forest Ecosystem

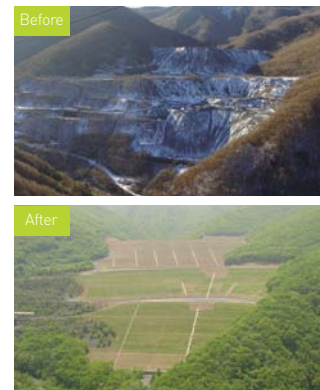


Context and Challenge

Deforestation of Abandoned Mine Areas and Reforestation

Deforestation and mine damage occurs when rocks and debris pile up in the process of the removal of trees and soil, mining, digging selection, and establishment of facilities preceding mine development. Deforestation causes various mine damage including pollution and damage in natural environments such as the soil, water, and air. The corporation evaluates the overall characteristics of the debris and the terrain and analyzes the natural environments, landscape, terrain and piling conditions, and CO₂ emissions for the systematic promotion of reforestation projects

Before and After Restoration
(Samcheok Mining Area, Jeongseon-gun, Gangwon)



Our Progress

Promotion of Reforestation Projects for the Reduction of CO₂

For the restoration of destroyed forests resulting from the land excavation following mine developments, Mireco promotes reforestation projects for the reduction of CO₂. Mireco first planned the trees appropriate for the area and the climate and sought soil neutralizing measures through soil analysis. As a result, the corporation secured 24 tons of CO₂ absorption in the restored area of 22,468m² through the CO₂ reduction projects last year.

Distinction in Tree Species for Reforestation

During the course of reforestation, Mireco planted specialized tree species in nearby residential areas with a view of the surrounding landscape, adding eco-friendly esthetics in the restoration planning, while planting fast growing, low cost soil saving species in obscured areas to prevent the forest disasters. The corporation increased the number of trees to be planted from 3 in 2012 to 5 in 2012, and plans to improve the landscape by planning various specialized species of trees in consideration of the local environments.

Monitoring and Feedback of Rates of Trees Taking Root

Mireco reinforced the monitoring and feedback system of rates of trees taking root in land completed through reforestation efforts. The average rate of soil-saving and specialized trees taking root in 2012 was recorded at 93.5%, which has been on a continual rise. The corporation increased the rate of specialized trees taking root to 92.4%, which have more difficulty taking root than soil-saving species, by considering the weather conditions and sapling supply and using trees species with a higher rate of taking root and seedling methods to be applied in the plan.

Carbon Absorption in Response to Climate Change

With the emergence of climate change as a world-wide issue, more efforts are being made to reduce greenhouse gas, changing the regulations on carbon emissions by adding certified emissions reductions in proportion to the size of forests. The reforestation projects in abandoned mine areas provide long term profit from securing CO₂ absorption as well as the usual benefits of slope stability and prevention of debris washing. 1 ha of 30-year-old national forest absorbs an average of 10.8 tons of CO₂ annually (Korea Forest Research Institute, Standard Carbon Absorption of Major Species of Trees). Therefore, the carbon absorption in the 1,340 ha forest that has been restored since 1990 is estimated to be 14,475 tons, absorbing an equal amount of greenhouse gas generated by 6,031 middle sized sedans for a year.

Carbon Absorption through Reforestation

Category	Area Restored	Carbon Absorption per ha	Carbon Absorption
Reforestation between '90~'11	1,338ha		14,450Tons
Reforestation in '12	2.3ha	10.8 Tons/ha	25Tons
Total	1,340ha		14,475Tons

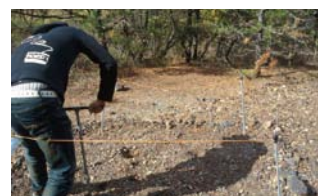
Eco-friendly Reforestation through Improved Restoration Method

Forest in the abandoned mine areas can regain its general function through reforestation, but the applicability of plantation and soil is insufficient to serve public interest, such as the recreational forests and arboretums. Mireco created field testing blocks in the mine areas with high soil acidity levels (ph indicators) resulting from debris and conducted monitoring to set and execute the restoration directions. On the other hand, the corporation strives to develop optimum reforestation models such as neutralization measures for soil with strong acidity levels and restoration models suitable for mining environments.

Results of Reforestation

The rate of specialized trees taking root in the previous year recorded 11.3% on a continuous rise as a result of the corporation's efforts to improve the reforestation projects. The environmental recovery following CO₂ absorption, contribution to green growth, and the improvement of landscape boosted the residents' satisfaction rate. Also, rolling land with a higher rate of trees taking root was constantly monitored for the drawing of improvement measures of forest structure and increased rate of trees taking root to lay a foundation of mutual growth through local cooperation concerning large-scale restoration of damaged forests.

Field Verification Test



Trial Forestation Projects



Plantation of Specialized Trees Rates

Performance Indicator	2010	2011	2012
Plantation Rate of Specialized Trees	7%	9.2%	11.3%

Next Step

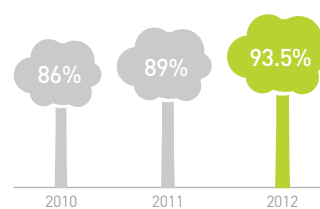
Through Maintenance

Mireco regularly monitors the transfiguration of the slopes, status of collapsing, and condition of the drains for 5 years after the completion of restoration until the restored slopes are stabilized and promptly performs remedial measures. Mireco also conducts an assessment of annual rates of trees taking root in restored forests to apply the information of the species of trees and seedlings in containers (pots) with a higher rate in the planning stage the plantation. The corporation intends to carry out a continual maintenance of the restored forests through repairing the defects to serve the purposes of forest healing, plant experiencing activities, bio plantation, and providing a rest area for the local residents.

Business Promotion in Conjunction with Local Development

Mireco plans to establish a foundation for mutual growth with local communities through the promotion of large-scale forest restoration projects. To this end, the corporation operates a continual channel of communication with stakeholders (Korea Forest Service, local governments, local residents, etc.) to carry out restoration projects for the co-existing cooperation efforts.

Annual Rates of Trees Taking Roots
(4.5% Increase Compared to 2011)



Expansion of Eco-friendly Operation



Context and Challenge

Climate Change is one of the major global issues that has been receiving greater attention from the international community for the past 20 years. Mireco is aware of the importance of the resolving environmental problems and issues related to climate change with all of its employees, participating in the reduction of greenhouse gas emission and minimization of environmental impact in an active response to the risks presented by climate change. Zero cases of fines imposed or nonmonetary disciplinary measures were found for violations of environmental laws in 2012.

Our Progress

Principles and Goals of Green Growth Management

Mireco enacts various efforts to reinforce eco-friendly management under the green business vision of Global Mine Damage Control Specialist Leading the Green Growth. The creation of an eco-friendly organization culture will increase the awareness of the green management among the employees. The promotion of saving energy and reduction in greenhouse gas emissions as tasks of first priority resulted in the corporation exceeding its reduction goals, proving its successful results.



Efforts to reduce greenhouse gas emission and energy consumption

Efforts to Curb Greenhouse Gas Emissions

Mireco falls into the categories of public corporation under the “greenhouse gas · energy target management system” of the “Basic Act on Low Carbon Green Growth” aiming at reducing greenhouse gas emission by 20% by 2015 compared to the standard amount of emission (average yearly greenhouse gas emission between 2007 and 2009). In response to the governmental policies, the corporation focuses on the company-wide reduction of greenhouse gas emission and energy consumption. As a result, Mireco produced 4,072.79 tCO₂eq of greenhouse gas in 2012, which is a 34% reduction from the standard amount of emission surpassing the target rate of reduction of 20% by 2015, 3 years earlier than scheduled.

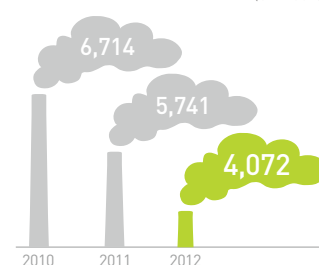
Annual Greenhouse Gas Emission

(Unit: tCO₂eq)

Category			2010	2011	2012
Organization	Fuel	Emission			
Headquarters	Building (Electricity)	Indirect	654.72	638.42	570.39
	Building (LNG)	Direct	197.77	221.28	183.07
	Vehicle	Direct	113.56	77.55	87.4
Gangwon	Building (Electricity)	Indirect	5,509.3	4,564.04	2,935.28
	Vehicle	Direct	56.93	52.17	49.81
Chungcheong	Vehicle	Direct	32.46	30.65	32.83
Yeongnam	Building (Electricity)	Indirect	-	-	4.68
	Vehicle	Direct	49.05	41.87	43.05
Gyeongin	Vehicle	Direct	18.98	12.16	8.66
Honam	Building (Electricity)	Indirect	49.86	53.62	40.21
	Vehicle	Direct	31.64	22.18	19.19
Research Institute	Building (Electricity)	Indirect	-	8.37	67.5
	Vehicle	Direct	-	19.28	30.72
Total		Total of Direct	500.39	477.14	454.73
		Total of Indirect	6,213.88	5,264.45	3,618.06
		Total	6,714.27	5,741.59	4,072.79

Greenhouse Gas Emission

(Unit: tCO₂eq)



* Decimal Points Cut Off

Efforts to Reduce Greenhouse Gas Emission from Business Vehicles

Mireco analyzed the current status of vehicles operation to reduce the greenhouse gas emission from business vehicles and reduced the number of vehicles in its possession. Systematic review of the operation rate of vehicles and the number of vehicles per person resulted in the reduction of number of vehicles by 3 from 46 units to 43 in 2012, saving 6.5% of energy. 1 hybrid vehicle and 4 vehicles with low emissions of less than 2,000CC were replaced with existing vehicles to lease eco-friendly, low-emissions vehicles for an estimated 20% reduction in greenhouse gas emissions.

Annual Greenhouse Gas Emission per Vehicle

(Unit: tCO₂eq)

Category	2010	2011	2012
Headquarters	113.56	77.55	87.4
Gangwon Branch	56.93	52.17	49.81
Chungcheong Branch	32.46	30.65	32.83
Yeongnam Branch	49.05	41.87	43.05
Gyeongin Branch	18.98	12.16	8.66
Honam Branch	31.64	22.18	19.19
Research Institute	-	19.28	30.72
Total	302.62	255.86	271.66

Tracks of Business Vehicle

Category	2010	2011	2012
Vehicles in Possession (Number of Units)	44	46	43
Leased Vehicles (Number of Units)	40	42	39
Low-Emission Vehicles (Number of Units) *	7	5	12
Hybrid Vehicles (Number of Units)	0	0	1
Eco-friendly Vehicles (Number of Units)	7	5	13
Rate of Eco-friendly Vehicles (%)	15.91	10.87	30.23

* Vehicles with less than 2,000CC emissions

Introduction of Eco-friendly Energy Facilities

Mireco installed 50kW-level solar light generation facilities in the Hamtae water purification facilities in Hambaek and Taebaek-si in Jeongseon-gun Gangwon-do in October, 2012 and put them into operation. The facility built to purify the mineral wastewater flowing continually from the abandoned mines provides part of the power to operate the facility through solar light generation, supplying 16~30% of the total consumption of electricity with solar energy minimizing environmental impact and saving operational costs for the facility.

Hambaek Water Purification Facilities in Jeongseon-gun Gangwon-do



Eco-friendly Management of Buildings

Improvement of Energy Efficiency of Buildings

Mireco is an active participant in the government's "LED Lights Distribution Project" and expanded the purchase of eco-friendly, high-efficient equipment to continually improve the efficiency of power generating utilities. 59.9 million won (50% investment by the government) invested in the facilities led to the replacement of 55% of all lights with high-efficiency LED lights and to the preferential purchase of high-efficiency energy equipment and materials. As a result, the illumination level of the lighting inside of building increased while 11.2tCO₂eq of CO₂ was reduced annually.

Results of Energy Efficiency Improvement Efforts of Buildings

Category	Energy Consumption (MWh/Year)		Energy Reduction (C=A-B)	CO ₂ Reduction (tCO ₂ /Year)	Reduction Rate (%) D=C/A*100	Reduction Amount (million won)
	Before Improvement (A)	After Improvement (B)				
Electricity (MWh/Year)	86.5	62.7	23.8	11.2	28	2.4

* Wonju Building Excluded

Energy Saving Activities

Mireco is fully aware of the significance of the power shortage problems and is joining the drive to save energy. The usage of neon signs during peak hours and neon signs for outdoor decorations is prohibited, and the temperatures in the buildings are restricted to over 28 degrees in the summer and below 18 degrees in the winter to minimize power consumption. As a result, the power consumption in the summer special supply and demand period (June 1, 2012~September 21, 2012) dropped by 32% compared to the previous year (June 1, 2011~September 21, 2011).

Consumption of Energy Each Year in Company Buildings (Unit: TJ)

Category	2010	2011	2012
Headquarters	12.64	12.32	11.01
Gangwon Branch	1.04	1.15	1.09
Honam Branch	0.96	1.04	0.78
Research Institute	-	-	1.30

* Headquarters and Regional Branches Combined

Consumption of Energy and Water Each Year

Category	2011	2012
Direct Energy	City Gas (TJ)	4.48
	Diesel (TJ)	3,255.74
	Gasoline (TJ)	859.93
Indirect Energy	Electricity (TJ)	68.91
Total Energy	4189.06	3956.67
Water	Water (m ³)	22,439

Footnote 1. Headquarters and Regional Branches Combined

Footnote 2. Energy Calculated under the "Guidelines on the Greenhouse Gas Energy Target Management Operation"

Wonju Company Building's Acquisition of Level 1 Preliminary Certification in Intelligent Buildings Review

Wonju building located in Bangok-dong, Wonju-si Gangwon-do earned the Level 1 certification (preliminary) in the Intelligent Buildings Review by IBS Korea in May 2013 in the areas of construction, equipment, electricity, information communication, system integration, and facilities management for its construction due to the function and usage of the building and the efficiency of the equipment and operation. The Wonju building earned extra points in its application of substitute sources of heat, usage of rainwater and heavy water, eco-friendly equipment and materials, leakage detection facility, automatic light control interlock, and the incorporated system of renewable energy and is expected to make a significant contribution to the energy reduction of buildings and improvement of efficiency.



Efforts to Encourage Green Purchases

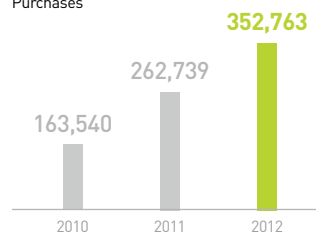
Mireco awards more points for purchasing green goods than any other indicators out of all indicators related to purchase and encourages all employees to participate through meetings of related parties, seminars hosted by the government, and request letters. The corporation drew up and distributed government guidebooks and field public purchase guidelines for the convenient purchase of green goods and awarded additional points in the reports review by specifying the usage of green goods in the notice of a bid and contractual terms to advance the drive for green purchase. Mireco also expanded the number of department in charge of conducting internal green purchase reviews from 5 to 7, improving the business process through the target liability system and purchasing goods after the cooperation with persons in charge of purchasing departments. As a result, Mireco's purchase rate of green goods and purchase amount are rising annually, achieving a perfect score of 100 points in the government's green goods review for the first time since the establishment of the corporation.

Responding to Climate Change and Diversification of Life

Mireco promotes the "Reforestation" movement to increase the role of the forest in absorbing carbon in ways that are approved by the Climate Change Convention and restores abandoned mine areas to become places filled with life. The corporation signed an agreement with the Eastern Region Forest Services to rehabilitate the forests in the resting and abandoned mines within the national forests in 2008, launching reforestation business for abandoned mine areas in Yeongwol-gun and Jeongseon-gun. The public functions of the forests and the diversity of life can be increased by the effective operation and management of 2.8 ha of profit-sharing forests.

Results of Green Goods Purchases

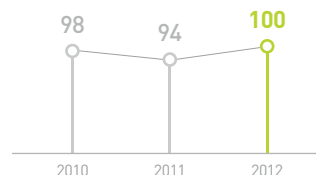
Amount of Green Goods Purchases (Unit: thousand won)



Purchase Rate of Green Goods (Unit: %)



Governmental Review Points (Unit: Points)



Next Step

Employees of Mireco understand the importance of green management and plans to operate a company-wide system for the reinforced eco-friendly management with middle and long term strategies. Mireco will make continuous upgrades of the system to minimize the environmental impact during the course of business.



Promoting of Ground Stabilization Project for Disaster Prevention

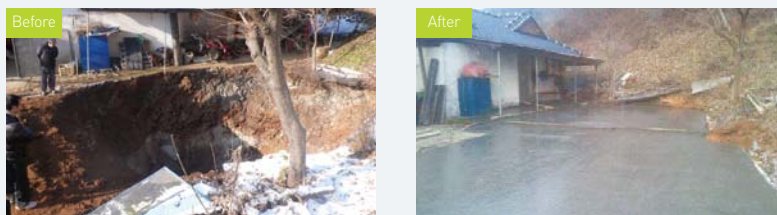


Context and Challenge

Current Status of Ground Subsidence in Abandoned Mine Areas

It is estimated that 2,137 abandoned mines have underground caverns following mining developments; this means that 40% of the total number of mines are emerging as a serious social problem with increasing occurrences of ground subsidence. Mireco categorized the underground mines into 499 zones according to priorities since the mid 1990s for the effective prevention of ground subsidence.

Before and After the Ground Reinforcement Project



Our Progress

Ground Stabilization Business

Assessment of Ground Stability

Mireco conducts preliminary analysis of business targets and prioritized the examination of mines for the effective promotion of business and understands the reality of mine development and use of index for the selection of analysis objects. The investigation of ground stability consists of a basic investigation and detailed investigation. The basic investigation is broken down into examinations of geography, geology, goafs, and signs of subsidence while the drawing of complex floor plans and ground stability examination determines the necessity of conducting a detailed investigation. The detailed investigation is broken down into physical exploration, sample analysis, field experiments, and computer simulations to make a general evaluation of the ground stability determining the necessity for reinforcement works.

Reinforcement

Planning reinforcement projects is a process in which the suitability of construction sections, construction scope (including the depth of reinforcement in cases of underground subsidence prevention projects), selection of construction materials and construction methods, specific construction plans, and calculation of construction cost are reviewed. All of this work is for the optimum fulfillment of reinforcement projects. Reinforcement projects are carried out following the optimum plan and carried out in a systematic manner under the "Performance Guidelines of Construction Supervision", setting the specific guidelines for managers.

Monitoring Subsidence-prone Areas

Mireco operates a monitoring program of abandoned mines areas prone to ground subsidence to acquire the initial safety management function and to protect life and property by increasing the safety management activities of areas prone to ground subsidence. Mireco follows signs of risks through real-time monitoring from a distance through automated surveying technologies. 8 units used for real-time monitoring are located in special management areas with plans to expand the automated monitoring to all special management areas by 2013.

Next Step

Introduction of Various and Efficient Construction Methods and Expansion of Engineering Base

Ground subsidence prevention projects require an assessment of the location, size, and forms of underground caverns which are impossible to check with the naked eye, prompting various investigative techniques according to the types of rock, condition of the ground, and characteristics of mine developments.

Mireco improved the existing proposal methods of engineering services in 2012 to expand the scope of proposals on the investigative methods and quantity to find 4 new cases of investigative technologies distinctive to each field. These investigative methods are effective in detecting underground caverns, vertically shaped underground caverns, and relaxed zone in the upper part of the cavern in the shallow subsurface that will improve the quality of future land stability examination. A new geogrid construction method was used in the place of the cement milk grouting method for reinforcement of the relaxed zone in the upper part of the cavern through the study of domestic and international cases, minimizing the impact on the crop harvest and saving 230 million won in business expenses. Mireco applied for a patent on the automating technology of measuring parts on the field standard intrusion test equipment through a two way exchange of technologies with professional businesses and educated special businesses on the installation, assessment, and data analysis knowhow to share equal levels of engineering capabilities with professional companies.

Expansion of Disaster Safety Management System

Ground subsidence can results in the loss of life and damage to the property of great magnitude when it unexpectedly happens. Therefore, timely response to danger situations and systematic management preventing safety accidents are required. Mireco spent a year developing real-time ground subsidence remote control monitoring system to complement the weakness of the existing manual monitoring system, which lacks the ability to provide an immediate response, and succeeded in developing the automated monitoring device (micro vibration, TLS-Thermal Line Sensor: Cable Arranged with Thermal Censors) independently. 8 locations around roads, railways, and residential areas prone to ground subsidence were selected from the end of 2011 to 2012, and the automated monitoring device was installed helping to build a real-time ground subsidence safety management system using wired · wireless communication. Mireco is ready to provide swift measures whenever signs of subsidence or subsidence are found with the constant monitoring of areas prone to that danger through the safety management monitor installed within its offices.

Resolution of Public Anxieties through Continuous Efficiency Improvement of Ground Stabilization Business

Mireco recorded zero cases of ground subsidence by carrying out the projects in the area prone to the occurrence as a priority, achieving a continuous rise to the efficiency index of the projects in the past 3 years. The development and introduction of the new technology evaluating the ground stability led to the creation of real-time remote control monitoring of ground subsidence, protecting public life and property from danger. In addition, the evaluation and safety managements processes are all incorporated into a complete project to realize sustainable mine development for a better effect.

Annual Effectiveness Index of Ground Subsidence Prevention Projects

Category	2010	2011	2012
Basic Investigation [X]	76	89	108
Reinforcement Works [Y]	25	33	46
Effectiveness Index [Y/X]	0.329	0.371	0.426

Location of Mireco's Monitoring of Special Management Areas



Third Detection of Nuclear Earthquakes in North Korea



Improvement of Efficiency and Quality of Mine Damage Control Project Management



Context and Challenge

Mireco carries out systematic mine damage control projects by categorizing them into 10 groups of projects including the prevention of debris washing, control of mineral residue and waste, and ground subsidence prevention. For the improved efficiency of the business, Mireco focuses on budget planning and execution, distribution of manpower, and enhanced construction method through development of technology for the diversification of the projects utilizing its accumulated capabilities and engineering knowledge.

10 Groups of Mine Damage Control Projects



Our Progress

Reasonable Budget Planning

Mireco evaluates the business targets and approximate business expenses of the previous year for the effectiveness of business and distributes the budget to the projects with the most damage as a priority. The R&D budget in 2012 rose by 19%, compared to the previous year, to 2,299 million won (2.80% of the entire business expense) and recorded 100% of the budget execution rate for the improved engineering capability.

Status of Mine Damage Control Business Expenses in 2012

[Unit: Number of Units/million won]

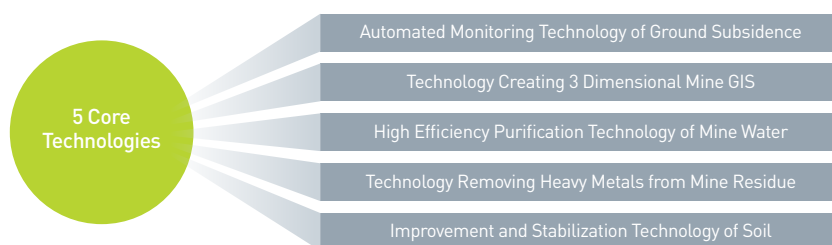
Category	Prevention of Debris Washing	Prevention of Mineral Residue Washing	Ground Subsidence	Improvement of Contaminated Water	Restoration of Contaminated Soil	Prevention of Dust Spreading	Demolition of Abandoned Facilities	Reforestation	Maintenance	Development of Technology	Total
Number of Projects	24	10	46	25	97	29	2	26	11	-	270
Business Expense	4,428	2,375	6,797	13,941	31,591	10,195	851	3,701	5,822	2,299	82,000

Utilization of Structure and Manpower

Mireco increased the number of persons in the fields of R&D, mine damage control business, and overseas business respectively to leverage the expertise and responsibilities of the mine damage control projects. The Mine Damage Control Business Headquarters added an Asbestos Forestation Division and Mine Damage Burden Charges team, and the Research Institute divided the Water Quality Bedrock Research Team into a Bedrock Engineering Team and a Water Quality Environment Team while adding an analysis study division to expand operations. The Overseas Business Team was revamped to become the International Relations Business Center to give a boost to overseas mine damage control projects.

Better Results of Mine Damage Control Business through Development of Technology

Mireco expanded the applicability of mine damage control business with the development of 5 core technologies and 5 special technologies. The number of registered patents out of the technologies are 5 in 2011 and 2 in 2012, managing a total of 26 cases of patents since 2006. 5 cases of technologies were transferred to civil corporations with the intention of further expanding the transfer of technologies in the future.



Field Application of Automated Monitoring Technology of Ground Subsidence

Field Installment of Automated Ground Subsidence Monitoring Device



Remote Controlled Monitoring System



Expansion into the Overseas Market

Mireco expanded into the mine developing markets of Mongolia and Kyrgyzstan and the consulting market of mine damage control in countries such as India and Malaysia based on its independently developed technology and implementing power. Mireco strives to build a human network and an infrastructure to connect consulting with the other projects.

Expansion Status into the Overseas Market

Countries	Projects	Note
Mongolia	Eco-friendly Development of Heongseok Mine	Mine Damage Control
Kyrgyzstan	Development of Gold Mines	
India	Treatment of Acid Mine Drainage in the Water Power Plant	Consulting
Mongolia	Legislation on Mine Damage Control	
Malaysia	Extension of Gwangmi-dam in RHT Mine RHT	

Next Step

Mireco is in the process of developing mine damage control technologies following the development of shale gas, which is currently rising as an issue, to provide practical technology for the field and promising technologies for future demand while also promoting international standardization of Korean mine damage control technologies. Mireco also trains specialists to distribute and promote the technologies in its possession and supports technology development by civil businesses on a continual basis.

Stable Procurement of Mine Damage Control Project Business Expenses



Context and Challenge

“Charges on Persons Responsible for Preventing Mine Damage” Program

Mireco operates the Charges on Persons Responsible for Preventing Mine Damage program consisting of Charges for Reforestation and Charges for Mining Damage Prevention. This program holds the persons causing damage responsible to ensure stable procurement of mining damage control business expenses and eco-friendly mine development.

Charges for Reforestation and Soil Restoration

Mireco guarantees forest restoration deposits when mining right holders apply for the development of mountains and renewal of approved period and carries out restoration responsibilities in response to nonperformance of responsibilities by the mining right holders. In addition, Mireco shares the payment of 30%~ 60% of the deposit for different mines in relation to the performance of guaranteed obligation, helping mining right holders and assisting the stable production of domestic mineral resources. .

Charges for Mining Damage Prevention

When mining right holders of the operating mines obtain the approval for the mine damage control business plan and establish mine damage control facilities (carwash facilities, dust facilities, dust webs, and prevention of debris washing), 30% of the total business expenses will be imposed on the mining right holders under the Charges for Mining Damage Prevention Program. The remaining 70% will be paid by the corporation.

Operation at Mines with Performance of Guaranteed Obligation



Consultation for Warranty



Our Progress

Effective Management of Mining Damage Control Business Expenses

The mining damage control expenses created with the mining right holder's charges are used for various purposes such as mining damage control projects, compensation for mining damage, establishment and operation of mining damage control facilities in resting and abandoned mines, evaluation of mining damage control business, research and development, development of technology, education, and domestic and international relations for mining damage control.

Annul Amount of Charges Imposed

(Unit: Cases, Hundred million won, %)

Category	Imposed		Collected		Difference		Collection Rate
	Number of Cases	Amount (a)	Number of Cases	Amount (b)	Number of Cases	Amount	(b/a)
Total	6,309	96,123	4,339	55,782	519	2,190	58
2012	1,624	10,152	1,105	7,962	519	2,190	78
2011	1,457	13,271	1,108	11,833	349	1,438	89
2010	1,069	22,020	751	9,274	318	12,746	42
2009	1,068	15,349	736	5,968	332	9,381	39
2008	613	17,407	366	10,235	247	7,172	59
2007	478	17,924	273	10,510	205	7,414	59

* The charges imposed between '07-'10 were mandated by laws to be paid before the end of the year, resulting in 50% of the payments being made late. Requests for readjustment of the number of payments in the pertinent year was accepted, and charges were re-imposed, increasing the amount of charges => Revision of the laws made to impose the charges for the pertinent year only started in '12.

* The total of amount of difference (2,190 million won) and the number of cases (519 cases) are not the mere total sum, but are the uncollected accumulated amount of charges and number of cases between '07 and '12.

Stable Promotion of Performance of Guaranteed Obligation

Mireco guarantees the obligation for the restoration deposit to the relevant agencies imposed on the mining right holders to save mining resources and stabilize the prices. As of the end of 2012, the corporation is serving as a guarantor in the amount of 496.5 billion won in 222 units over 112 mines, comprising 28.1% of all operating mines.

Current Status of Guarantee of Performance Obligation

Number of National Mines in Operation	Number of Mines under Guarantee of Performance Obligation	Number of Businesses	Area of Business (1,000 m ²)	Amount of Guarantee (Hundred million won)
398	112	222	17,316	496,456

Improved Management of Financial Risk

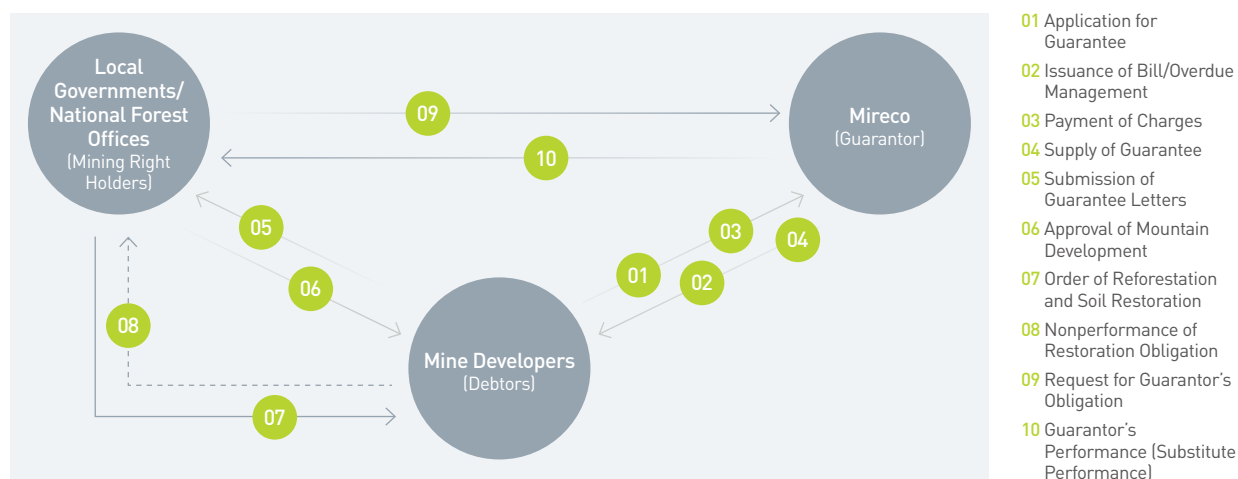
Mireco selected the mines in need of establishment of security rights and promoted gradual reinforcement of assurance of collateral security and performance of obligation starting in 2012 for stable operation. This was a measure to increase the recoverability from the mining right holders in cases of security accidents contributing to the stable preservation of claim by issuing surety and certificates of performance obligation according to the rate of charges.

Next Step

Reserve Fund for the Stable Operation of Surety System

The government is aware of the significance of the reserve funding for the stable operation of guarantee of performance obligation system and for the timely promotion of mining damage control business in mines involving security accidents. It approved the establishment of the "Reserve Fund for Guarantee of Performance Obligation" in 2012 and started funding by contributing 6 billion won. Mireco plans to create a funding of 86.9 billion won by 2019 for the next 5 years for the stable maintenance of a surety system and strives to establish the surety system by using the profits from the operation.

Process of Guarantee of Performance Obligation



Promotion of Self-sustainable Local Businesses

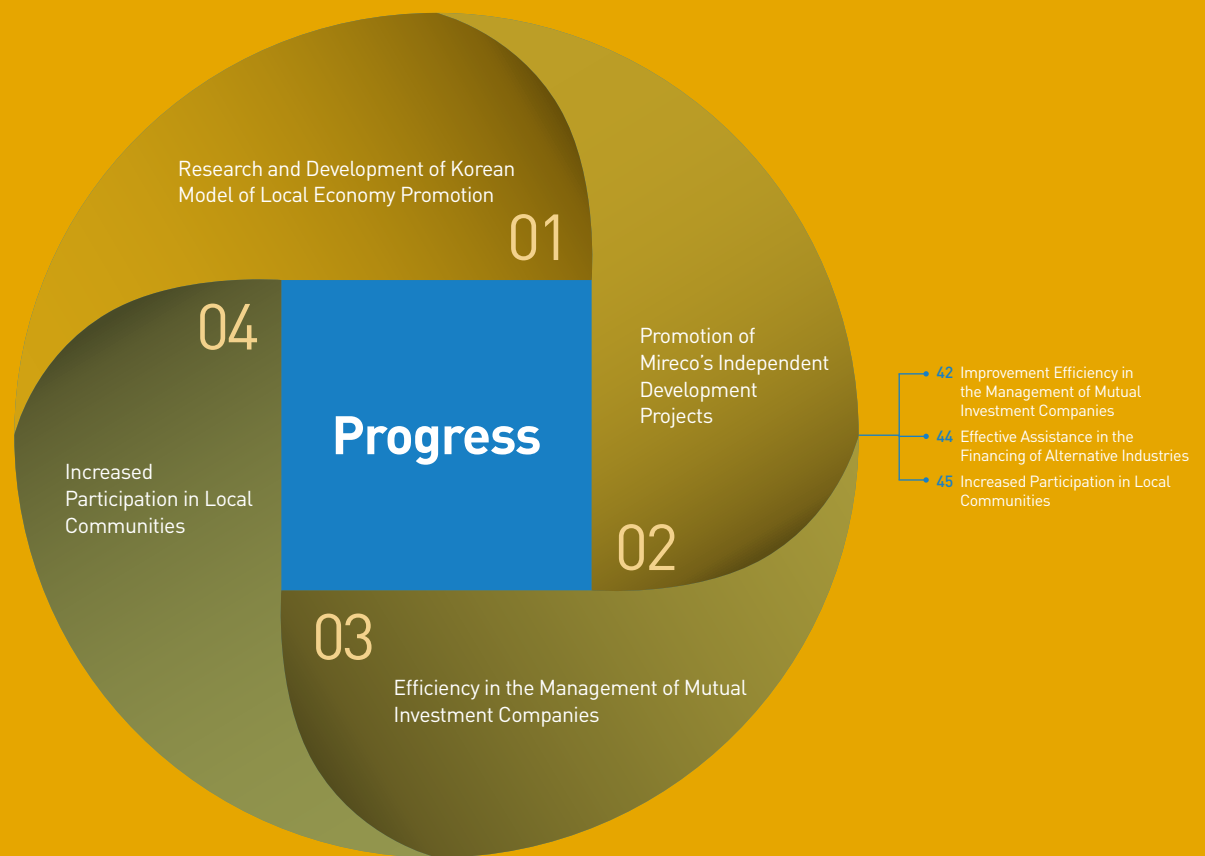
mireco Lights a New Way
into the Future.



The populations of abandoned mine areas are rapidly decreasing, discouraging the local economies and aggravating local hollowization to create continuous social problems. To resolve this problem, Mireco is dedicated to the steady promotion of mines for long term growth, establishment of infrastructure for the systematic and incorporated growth of local business, and support of alternative industries through the creation of tourist hot spots to give the local community self-sustaining ability to invigorate its economy.

Issues

- Development of Technology and Accessibility for Local Communities
- Effort to Improve the Health in Local Communities
- Social Investment in Local Communities
- Creation of Wealth and Profits in Local Communities
- Participation in the Growth of Local Community



Key Performance Indicators

Key Performance Indicators		2010	2011	2012	Office in Charge
Loan Assistance for Alternative Industries (Hundred million won/Number of Businesses)		100 / 16	175 / 17	233 / 44	Regional Promotion Office
Social Contribution Activities	Number of Participants	470	609	614	Planning and Coordination Office
	Number of Activities	98	103	123	
	Hundred million won	3.1	4.5	6.1	

Next Step

Gangwon Land's contribution to the local community in 2012 amounted to 4,674 hundred million won, and the 6 mutual investment companies are emerging as a source of economic revival of abandoned mine areas.

Mireco also strives to provide continuous assistance to local businesses and revitalize their management. The corporation will work to coexist with local businesses and society to ultimately revive local economies, which is in line with the fundamental purpose of the corporation.

Improved Management Productivity of Mutual Investment Companies



Context and Challenge

Establishment of Mutual Investment Companies in Abandoned Mine Areas

Due to the rapid decline of the economy in abandoned mine areas following the government's price stabilization policy of coal briquettes, a special law to assist the development of abandoned mine areas was enacted in December 1995. Mireco established Gangwon Land, Inc. focused on operating casinos in Jeongseon, Gangwon-do in June 1988 under the law and used the profits to create mutual investment companies in other abandoned mine areas (Samcheok-si, Yeongwol-gun, Mungyeong-si, Boryeong-si in Gangwon-do, Hwasun-gun in Jeonnam) to bring balanced development, mutual growth, and creation of job opportunities in areas that were suffering after the decline of coal briquettes industry. Mireco conducted an investigation of cultural, social, and economic environments of 7 abandoned mines applicable to the promotion of local economy and completed total inspection of the extent of mining damage (the levels of contamination in the water and soil) for the execution of mining damage control projects.

Our Progress

Major Mutual Investment Companies

Current Status of Major Mutual Investment Companies

[As of December 21, '12]

Organization	Date of Establishment	Location	Percentage of Share (%)					Sales (2012, Hundred million won)
			Total	Mireco	Gangwon Land	Local Government	Others	
Gangwon Land	'98	Jeongseon	100	36.3	-	14.7	49	1조 2,929
Mungyeong Leisure Town	'03	Mungyeong	100	36.3	27.3	27.3	9.1	93
Black Valley CC	'04	Samcheok	100	11	17	72	-	44
Donggang Cistar	'06	Yeongwol	100	25.2	25	25.9	23.9	101
Daecheon Resort	'07	Boryeong	100	38.1	28.6	33.3	-	58
Hwasun Resort	'12	Hwasun	100	36.3	32.9	30.8	-	-

* Sales of Gangwon Land derived from separate financial statements

Mutual Investment Companies



Gangwon Land



Mungyeong Leisure Town



Black Valley CC



Donggang Cistar



Daecheon Resort

Introduction of Management Review of Mutual Investment Companies' Responsibility Management

Mireco started conducting management reviews in 2012 through management contracts with the CEOs of small and medium mutual investment companies, sophisticated evaluation indicators, and expanding the subjects of evaluation to enhance the responsibility management system of small and medium mutual investment companies. Mireco will shorten the period necessary for stabilized operations of the small and medium mutual investment companies, starting with the establishment of a responsibility management culture to contribute to local economies.

Expansion of Subjects of Management Reviews in Small and Medium Mutual Investment Companies

Category	Mungyeong Leisure Town	Daecheon Resort	Donggang Cistar	Hwasun Resort
Management Contract	Signed	Signed	April '13	April '13
Management Review	Conducted in '12	Conducted in '12	To be Conducted '13 Additionally	To be Conducted '14 Additionally

Next Step

Results and Financial Contribution

Gangwon Land's amount of contribution to the central or local finances amount to 4,674 million won for 2012. This makes the total amount of contribution in the amount of approximate 3 trillion and 900 billion won since the opening of business, contributing 2 trillion and 781.3 billion won to central finance and 1 trillion and 117.3 billion won to the local finance, respectively. Mireco also uses 25% of the net profits before the corporate taxes for the development of abandoned mine areas to facilitate balanced growth between the national abandoned mine areas to continually increase its role.

Mireco also participates in the management of 6 mutual investment companies through the board of directors meeting and general meetings of shareholders directly and indirectly. The corporation introduced a system in which a bonus payment is made to the CEO in accordance with the results of the management reviews of mutual investment companies to strengthen the relationship between the management accomplishments, goals, and strategies. Mungyeong Leisure Town and Black Valley CC is continually contributing to the local economy through steadily increasing profits and management improvements while Donggung Cistar and Daecheon Resort is soon expected to become the stepping stone of economic revival in the area with its increasing number of customers and recognition within a year of its business opening.

Current Status of Financial Contribution of Gangwon Land

(Unit: million won)

Category		2010	2011	2012	Total
Central	National Tax	155,762	138,919	204,965	499,646
	Tourism Fund	125,116	118,090	120,393	363,599
	Total	280,878	257,009	325,358	863,245
Local	Local Tax	18,376	16,381	26,493	61,250
	Abandoned Mines Fund	124,603	115,654	115,534	355,791
	Total	142,979	132,035	142,027	417,041
Total		423,857	389,044	467,385	1,280,286

Effective Assistance of Alternative Industries Financing



Context and Challenge

Assistance of alternative industries financing is a project that grants loans for the economic revival and improvement of living conditions of local residents in the abandoned mine areas. The growth of small and medium businesses and the balanced development between different regions are part of the new governmental policies that Mireco supports for its relevancy to sustainability. The businesses that start up or expand into manufacturing, dealing with minerals, or tourists or leisure activities in the promoted region or are moving into the promoted region are eligible for assistance, and they must be able to provide security or enter into a security agreement.

Our Progress

Fairness and Objectivity in Selection of Applicants for Financing Assistance

Mireco conducts a preliminary screening with the 7 cities and guns of the companies meeting the conditions of the financing assistance program to guarantee the transparency and fairness of the selection process. The corporation holds a "Review Committee of Financing Assistance of Alternative Industries" consisting of external experts for the final selection of the recipients of assistance.

Conditions for Financing Assistance

Category	Financing Period	Financing Limit	Financing Interests
Facilities Fund	5-Year Grace Period, Paid in 5 Years	Within 5 Billion Won	Quarterly Adjustable Rate (Currently 1.75%)
Working Fund	2-Year Grace Period, Paid in 3 Years	Within 500 million won	

* S.E. Fund: Special Energy Fund

Results of Assisting with S.E. Fund* and Company Capital

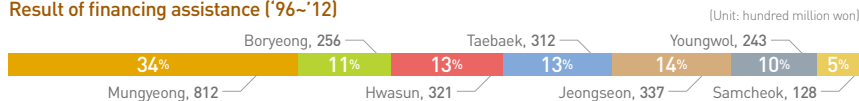
Mireco has assisted 284 businesses in the amount of 2,409 million won since the start of the business in 1996 through the end of 2012, helping the mutual growth of small and medium businesses and local communities. Mireco plans to provide assistance to a total of 26 companies in the amount of 15 billion won in 7 cities and guns in 2013.

Adequate Execution of Loans and Improved Customer Satisfaction Rate

Mireco sought to resolve the imbalance between regions in the selection of applicants for financing assistance, held business conferences and meetings to attain better understanding of the financing projects, and reflected the levels of poor performances in the region to bring a balanced growth.

Mireco also carries out annual customer satisfaction surveys to improve the customer-oriented management and services and was selected as the "Organization with Excellent Customer Satisfaction Ratings for 5 Consecutive Years" in the area of financing assistance with a score of 98 points in 2012.

Result of financing assistance ('96~'12)



Selection Process of Applicants for Financing Assistance



Next Step

Mireco seeks to secure financial resources and assist the sales promotion of supporting companies in accordance with the governmental policies and directions to carry out strategies for management revitalization. Mireco will also promote the coexisting growth of small and medium businesses and local communities by providing financing assistance and transfer of technologies to resolve the financial crisis of small and medium companies and strengthen their competitiveness.

Reinforced Participation in Local Communities



Context and Challenge

Directions and Strategies of Social Contribution Activities

Mireco actively fulfilled social contribution responsibilities in 2012 under its vision of becoming a “Beautiful Mireco Winning Sympathy from the Public” According to its 5 themes, the corporation intends to continuously provide assistance in the future.

Strategies of Social Contribution Activities

Category	Previously
Vision	Beautiful Mireco Winning Sympathy from the Public
Strategic Goals	We restore the environment of impoverished abandoned mine areas and give dreams and hope to the hopeless.
Program	Distinct Social Contribution Activities Reflecting Characteristics of Abandoned Mine Areas
Themes	Mireco Eco, Mireco Edu, Mireco Culture, Mireco Welfare, and Global Mireco

Our Progress

5 Themes and Major Social Contribution Activities

Mireco Eco

Mireco visited the abandoned mine areas and focused on what is most needed in the area for the improvement of the environment and created eco environmental parks, murals on the mining barriers, and rest areas to enrich the living conditions of the local residents.

Mireco Edu

Mireco carried out the Future Dream Science Camp, Mireco Artistic Talents Mentoring School, and Mireco Mining Tour as part of the Mireco Edu project to provide high quality education and practical opportunities for students in abandoned mine areas.

Mireco Culture

Mireco hosted the Music Camp and Mireco Master Class to offer an opportunity for cultural appreciation to win a favorable reaction from the local residents and students.

Mireco Welfare

Mireco worked to improve the poor living conditions of the socially neglected class through free installation of coal heating system for families with pneumonia patients and Mireco Happy House. Mireco also helped a total of 569 families enjoy a warm winter through the company’s signature welfare projects of Sharing of Love Coal Briquettes and maintained relationships with the 8 mining towns that formed alliances with the headquarters and local branches through service works and purchase of farm produce. Through these efforts, the corporation practices a spirit of partnership with the abandoned mine areas.

Global Mireco

Mireco expanded its scope social service works by providing assistance to children in the major international mining damage control projects areas such as Mongolia and Kyrgyzstan by awarding scholarships through Matching Grant, donating abandoned computers, and reforestation projects.

Next Step

Results of Social Contribution Activities

Mireco enjoyed encouragement from the residents in the abandoned mine areas through systematic and continuous social contribution activities and increased the number of participants and events, and the amount of budget for social contribution. Mireco will continue its work to spread dreams and hopes through sincere social sharing activities.

Mural Paintings in Geumjang Mine



Mireco Science Camp



Mireco Music Camp



Sharing of Love Coal Briquettes



Reforestation in Mongolia



Category	2010	2011	2012	Variation
Annual Number of Participants	470	609	614	5
Number of Participation (Cases)	98	103	123	20
Budget (thousand won)	305,925	452,684	613,377	160,693

Stable Management of Coal Energy Supply

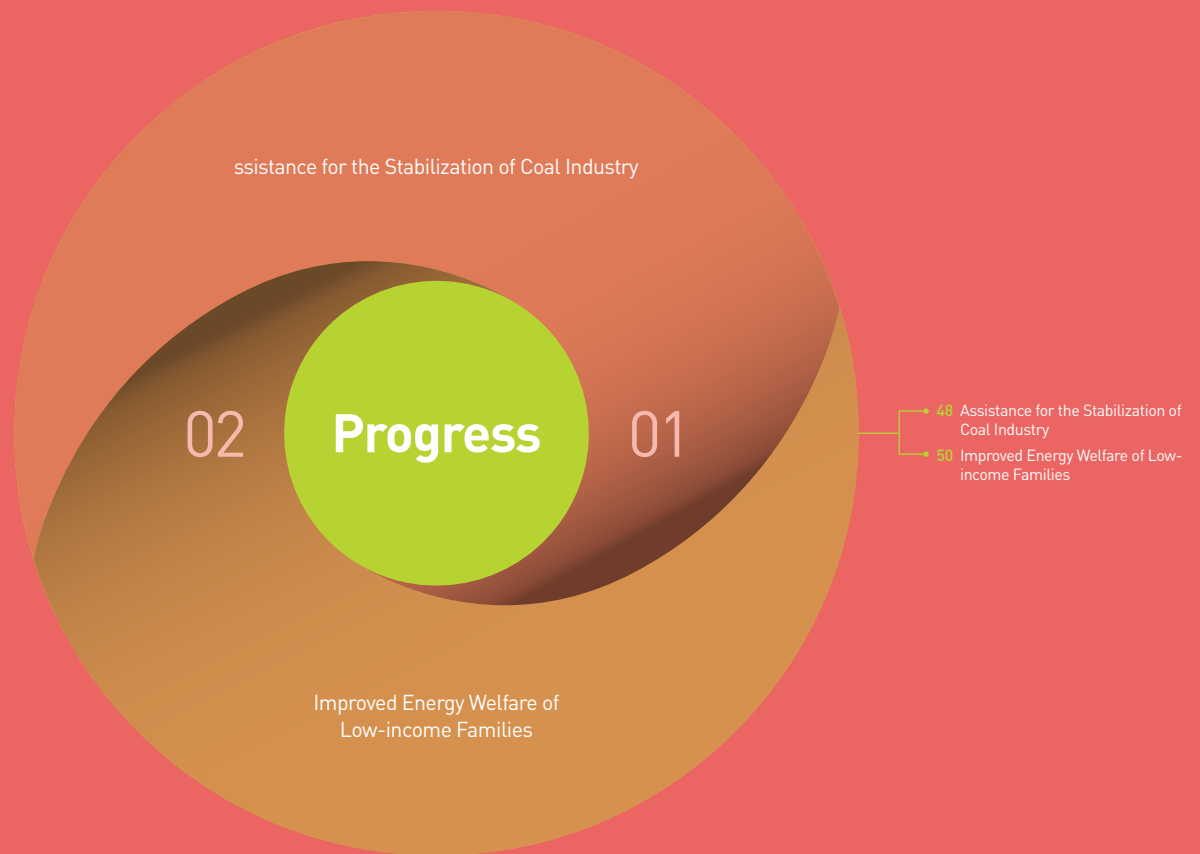
mireco shares
warmth with others.



The Government has supported the stable production and supply of coal and coal briquettes since 1989 for the price stabilization and protection of low-income families. Mireco leads the efforts for the price stabilization and protection of low-income families through the maintenance of production infrastructure, stable supply of coal briquettes, and support of low-income families while encouraging the appropriate closing and reduction of the mines near the production limit and assisting employees in changing jobs before the mine closing.

Issues

- Necessity for Increased Social Contribution for the Socially Neglected



Key Performance Indicators

Key Performance Indicators	2010	2011	2012	Office in Charge
Status of Assistance of Coal Briquette Vouchers	Hundred million won 142	151	141	Supply of Coal and Coal Briquettes Office
	Number of Families 88,752	89,172	83,809	
Demand for Anthracite (10 thousand tons)	2,698	2,365	2,424	
Supply of Anthracite (10 thousand tons)	4,551	4,085	4,052	

Next Step

Mireco strives to maintain and stabilize the optimum manufacturing infrastructure of the coal industry through coal price stabilization projects, projects in preparation for mine closing, and the management of supply and demand of anthracite. Mireco is also continually enacting efforts to increase the number of low-income families benefiting from the energy assistance programs and to secure fairness in the business. Mireco will continually carry out assistance programs for the active energy welfare of low-income families and achieve credibility and soundness of its business through transparent activities.

Support of Coal Industry Stabilization



Context and Challenge

Maintaining Adequate Production Infrastructure for Coal Industry

Following the rapid decrease of demand in the national coal industry with the economic development in the mid 80s, the coal price rationalization policy of the last 20 years is in its final stage, maintaining the minimum form of production. The coal industry is currently losing its share in the national economy and nearing its production limit, but the increased demand for coal briquettes due to high oil prices and the introduction of imported anthracite due to the reduced production of anthracite requires further efforts in balancing the supply and demand in the industry.

Our Progress

Measures to Stabilize Coal Prices

Coal Price Stabilization Projects were introduced in 1989 to notify the highest sale prices of coal and coal briquettes for the stabilization of price and to secure the difference between the production cost and sale price. Mireco provides assistance in the maintenance of coal prices for manufacturers and distributors through production stabilization assistance, workers compensation insurance, and scholarships for the children of workers (for 3 children per worker).

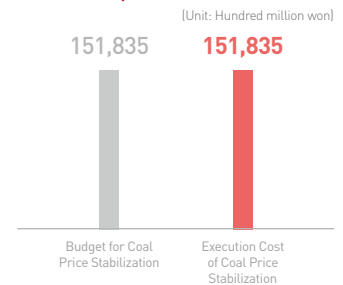
Programs in Preparation of Mine Closure

Mireco encourages rational reduction or closures of mines close to the limit of production due to waning productivity and competitive edge of mining industry by providing workers aid in changing jobs in the form of worker compensation, miner compensation, and layoff compensation to help stabilize the workers' lives. Once the preliminary application for the closure of mines are accepted, Mireco's Mining Closure Review Committee considers the supply and demand status of coal and the available budget to select the mines eligible for mine closure assistance. The assistance is set and awarded in fairness after a field investigation is conducted. Additionally, the contents of assistance in settling cost, training cost, and expense for moving and seeking new employment from 1989 through 2000 were consolidated into the "Preparation Cost for Change of Jobs" in 2001 to be awarded as differential pay according to the terms of employment.

Content of Business in Preparation of Mine Closure

Projects in Preparation of Mine Closure	Content	
Workers Compensation	Severance Pay, Wages, Severance Bonus, Change of Jobs Aid, Settling Cost, and Children's Scholarships	
Miners Compensation	Relocation and Closing Cost of Mining Facilities	
Layoffs Compensation	Transfer of Jobs Aid, Children's Scholarships	
Category	1989 ~ 2011	2012
Worker Compensation	502,509	932
Miner Compensation	121,109	-
Layoff Compensation	242,519	53,403
Total	866,137	54,335

Execution of Coal Price Stabilization Business Expenses



Execution Rate of Coal Price Stabilization Expense in 2012 achieving

100%

Management of Supply and Demand of Anthracites

The volume of national anthracite production in the 1980s annually amounted to 2,400 tons, but the economic growth after the 1998 Olympics, preference for clean fuel, and emergence of its uneconomical nature reduced production to a tenth of what it used to be. The rise of oil prices and burden on heating cost increased the consumption of coal briquettes starting in 2005, intensifying the imbalance between supply and demand in the market. In response, Mireco seeks to resolve this matter by reducing strategic demand of thermal coal, importing anthracite, and releasing its reserve coal.

Current Supply and Demand Status of National Coal (Anthracites)

(Unit: Thousand Tons)

	2010	2011	2012
Supply	4,551	4,085	4,052
Production	2,084	2,084	2,094
Carried Over	2,226	1,853	1,720
Profits	170	100	192
Others	71	48	46
Consumption	2,698	2,365	2,424
Coal Briquettes	1,859	1,822	1,833
Thermal	839	543	591
Industrial	0	0	0
Inventory	1,853	1,720	1,628

* Inventory: Governmental Reserve +Coal's Manufacturers and Coal Factories' Stock

Quality Examination of Coal and Coal Briquettes

The quality examination of coals and coal briquettes is used to encourage fair dealings between parties, protect coal customers, and serve as material information in the establishment of coal industry policies. The distribution of low quality coal is prevented for the stable supply of high quality coal and coal briquettes. 5 operating mines and 48 coal briquettes factories in the nation are subject to this examination in terms of calorific power, volatile matter, and standards.

Process of Coal Quality Examination



Next Step

Price Rationalization, Cut of High-Cost and Low-Efficiency Mines

Mireco annually measures the production cost of coal for the calculation of the appropriate prices of coal and anthracite to use the information in gradually increasing the coal price, notifying of the highest price, and calculating the amount of assistance for price stabilization. Mireco strives to mediate the conflict of interests between the manufacturers and consumers and rationally executes the national budget. The corporation also considers the amount of mineral deposit, production, and the quality of coal to select the recipients for coal production reduction aid, as well as awards the retiring workers a transfer of jobs preparation fee that is differentiated according to the terms of employment, special compensation, and scholarships. Furthermore, Mireco awards coal miners compensation set by the president within the limit of 10 thousand won per ton in terms of annual coal production to attain stability for the lives of workers and miners.

Improved Welfare of Low-income Families' Energy



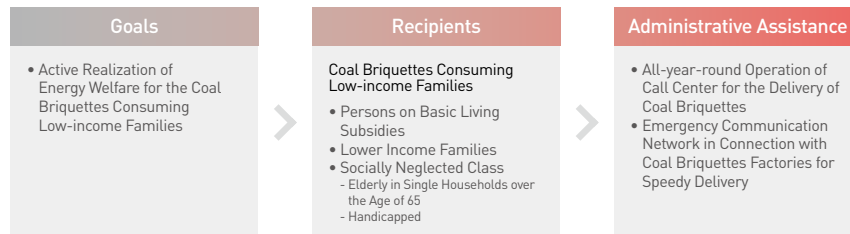
Context and Challenge

Subsidies of Coal Briquettes for Low-income Families

Business Purpose

Mireco provided vouchers in the amount of increase of coal price to low-income families as part of the countermeasures for the increase in coal price starting in 2008 to secure the soundness of coal demand and stabilize public life by relieving the stress of heating costs.

Overview of Coal Subsidies Program



Our Progress

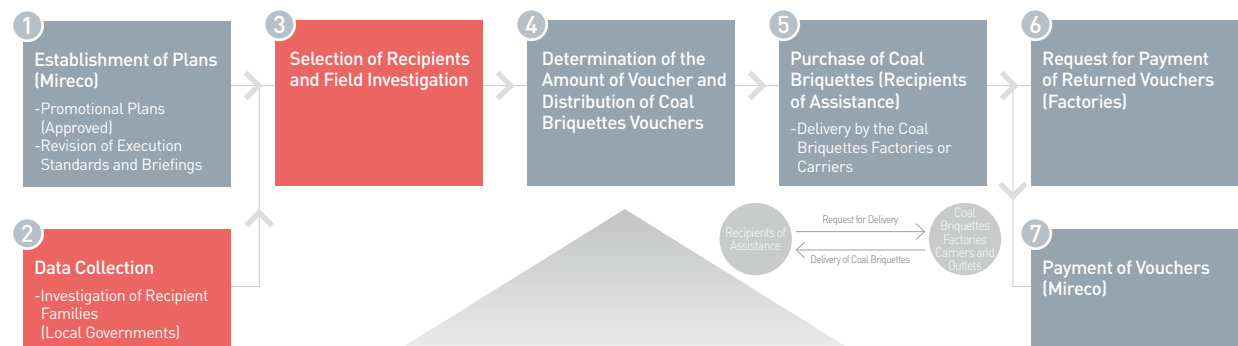
Scale of Subsidies

Annual Scale of Business (in Terms of Fiscal Year)

Year	Number of Households	Amount (million won)	Amount of Subsidy to Each Household (won)
2010	88,752	14,200	169,000
2011	89,172	15,100	169,000
2012	83,297	14,106	169,000

* Amount Paid in Practice according to the Number of Vouchers Issued

Promotional Procedures of Coal Briquettes Subsidies Projects

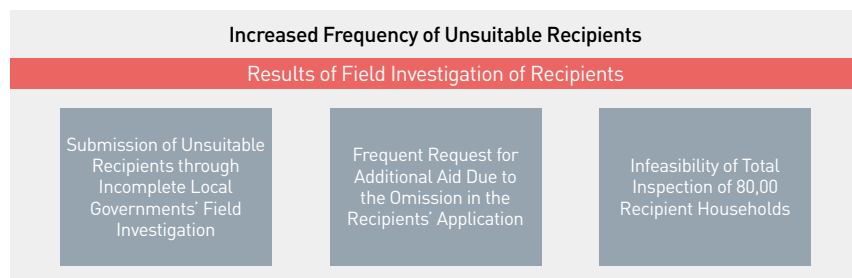


Check List for Field Investigation: Application and Supporting Documents, Actual Use of Coal Briquettes, and Assistance Outcome of the Previous Year

Integrity of Business

Some local governments are concerned with the selection of unsuitable recipients for aid, no confirmation for coal briquette use, and illegal distribution of the vouchers, and are calling for measures to prevent these problems.

Selection Process of Applicants Subject to Investigation



Field Investigation (Jointly with the Government)



Process of Coal Briquettes Use



Coal Briquettes Vouchers



Next Step

Improvements

Mireco cuts off the illegal use of coal briquettes vouchers by conducting a field investigation of the recipient families and reinforcing the confirmation process of suitable application through local government authorities. Mireco holds a business briefing for local governments to promote the importance of the business. Mireco also sends out instructions to educate the 80,000 recipients on the method to properly use the vouchers and operates a call center to respond to complaints in a timely manner. Mireco also educates the coal briquettes manufacturers and carriers to continuously prevent the illegal distribution of the vouchers and awards prizes for cases of exemplary administration of the voucher business to ensure credibility and soundness.

Business Briefing



Strategic Responses



Confirmation of the Local Government's Suitable Application



Leading Technology Development of Mine Damage Control

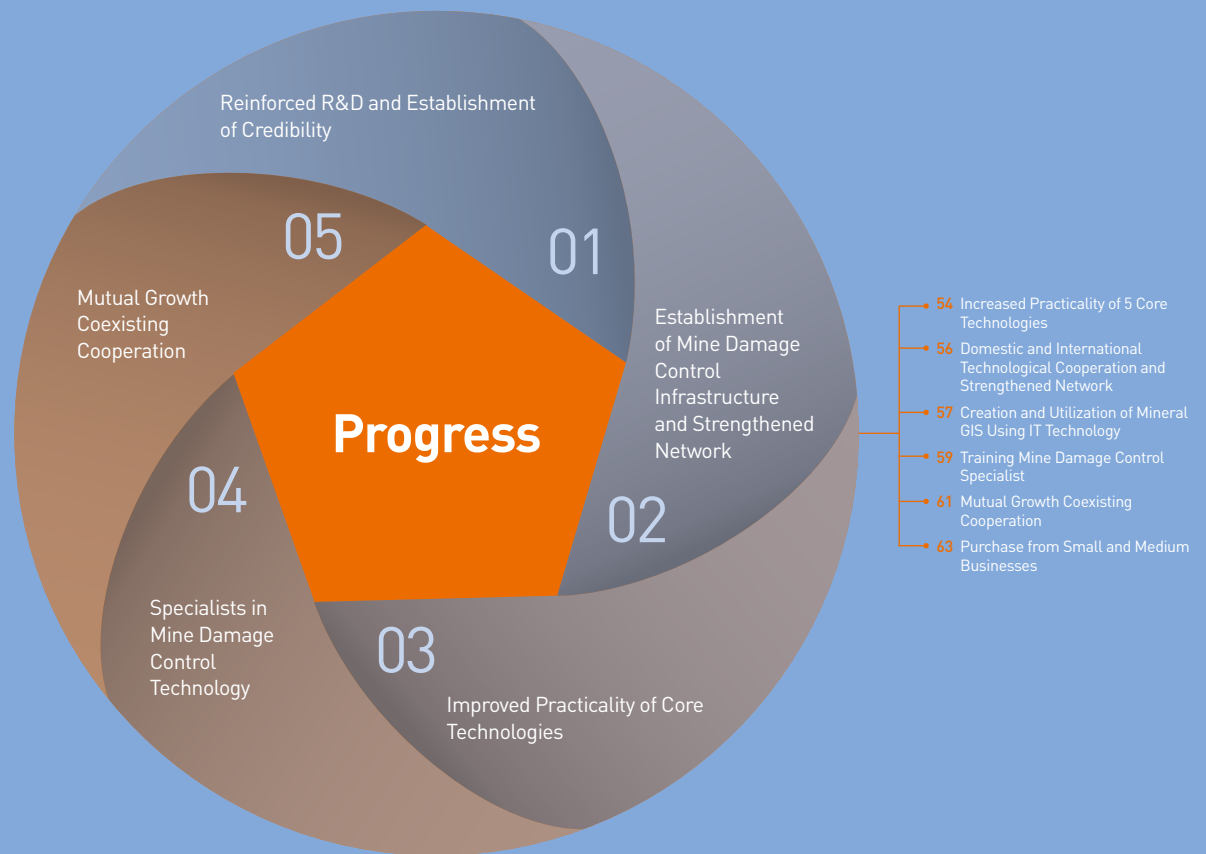
mireco's day is
always filled with life.



Mireco focuses on the development of world-class technologies and training human resources to dominate the international mine damage control market. Mireco's Mine Damage Control Technology Institute plays a huge role in leading the eco-friendly green-growth industry, as well as the international market, by developing patent-earning technologies and training specialists.

Issues

- Mine Damage Control for Sustainable Growth
- Increased Significance for Mutual Growth with Business Partners



Key Performance Indicators

Key Performance Indicators	2010	2011	2012	Office in Charge
Joint R&D Budget (Hundred million won)	33	33	45	Planning and Coordination Office
Purchase Amount from Small and Medium Businesses (Hundred million won)	815	763	847	Business Planning Office of Mine Damage Control Technology Institute
Number of Specialists Trained (Number of People)	88	85	96	Mine Damage Control Institute
Level of Technology Compared to Developed Countries (%)	75.5	77.9	82.5	Technology Institute of International Relations Business Center

Next Step

The international mine damage control market is a starting point for the corporation for the new strategic business. Mireco built an engineering cooperative network through an engineering forum, engineering research society, and joint workshops for the promotion of international business, and obtained competitiveness through the management of patents and new technologies. Mireco will establish its foundation for the global market on a continuous basis to reposition itself as the leader in the mine damage control industry.

Reinforced Practicality of 5 Core Technologies



Context and Challenge

Situation and Imminent Tasks

Mireco established middle and long term strategies for the development of mine damage control technologies every five years for the systematic and comprehensive development of technology. This resulted in various accomplishments such as the application for patents, certification of new technology, publication in journals, and technology transfer to private companies, thus increasing the level of technology compared to other advanced countries from 63% in 2006 to 86% by the end of 2012. Notably, the 5 core technologies developed by the corporation are considered to be equal or above the level of technologies from advanced countries: this will give the corporation the upper hand in the international mine damage control market with the establishment of an international standard (ISO), which is currently in the works.

Our Progress

Securing High Efficiency and Professional Mine Damage Control Technologies

Natural Purification Technologies of Mine Drainage

Natural Purification Technology is an eco-friendly and economic technology using natural resources such as bacteria, gravity, and air to purify mine drainage. Mireco developed the optimal structures such as the bionic generation device and alkali supply tank, which is highly important work, and prepared long term maintenance and management measures to be applied at most national mine drainage purification facilities.

Pilot Testing of Natural Purification Technology



Automated Monitoring Technology of Ground Subsidence

Automated Measuring Technology effectively measures the extensive area prone to ground subsidence by using an optical fiber monitoring system and micro vibration monitoring system. The analysis system integrates IT to run remote-controlled monitoring and real-time data analysis and management. This technology is currently applied to the ground stability monitoring projects of 7 national mines.

Remote Controlled Monitoring System



Improvement and Stabilization Technology of Soil

Soil Improvement Technology is a soil restoration method that reduces the mobility of heavy metals in soil and helps maintain the function of farmland. Both the stability method and mud capping method are used according to the characteristics of the contamination, and this technology is applied in all of Mireco's soil restoration projects.

Practical Test of Stabilization of Heavy Metals in Soil



Removal of Harm Technology from Mineral Residue

Removal of Harm Technology from Mineral Residue is a process that completely removes all harmful heavy metals from the soil without generating secondary pollution, physically separating and removing the harmful metals from the mineral residue. The residue is now safe and then used for aggregates and civil engineering material. It is currently applied in national mines and is part of the ongoing international technological cooperation efforts with Kyrgyzstan and Columbia.

Facilities for Removal of Mineral Residue



Creation of 3-dimensional Mine GIS

This technology involves the creation of a 3-dimensional GIS of a mine, enabling searching and viewing of information related to mine damage control and the mine map, and is used to support the decision making process through 3-dimensional analysis. It is an advanced technology with the patent application pending overseas for creating 3-dimensional underground mine maps. It is used to analyze the risks of ground subsidence and designs of tunnels and roads, and the resulting analysis is used as a reference in the promotion of SCO projects.

Creation of 3-dimensional Mine GIS



Sharing of Results and Diffusion

Mireco transferred 5 promising technologies in 2012, the results of its technology development efforts, to private small and medium companies to boost their competitiveness and share and spread its accomplishments.

Analysis Results of the Mine Damage Investigation and Securing Internal and External Trustworthiness

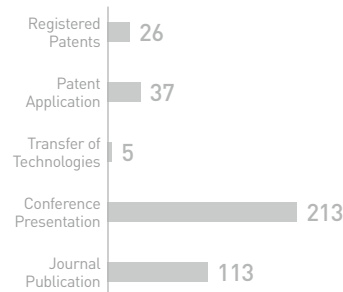
Mireco has made continuous efforts to increase the efficiency of research and development and mine damage control projects and to have its effectiveness verified by a credible authentication agency. Mireco intends to provide trustworthy analysis reports for the successful performance of mine damage control projects (soil, water, and asbestos) under the corporation's basic plan. Mireco also strives to maintain the accuracy and precision of the evaluation analysis equipment by participating in the workmanship program to enhance analytical skills and ensure high quality evaluation results.

Participation Status in the Workmanship Programs

Year	Category	Evaluation Items	Results	Evaluating Agency
2011	Soil	TPH	Satisfactory	KOLAS
2012	Water Quality (Cation)	Al, As, Cd, Cr, Co, Cu, Fe, Pb, Mn, Ni, Zn	Satisfactory	ERA
2013	Water Quality (Anion)	F ⁻ , Cl ⁻	Satisfactory	

Development Result of Executive Technologies

[Accumulated Results of 2007~2012, Unit: Cases]



Next Step

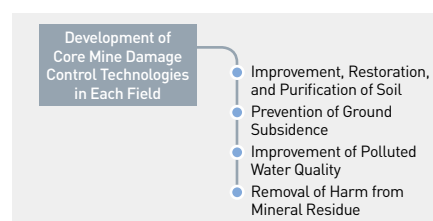
Maximization of Efficiency of Mine Damage Control Projects

Mireco invested 32 billion won in technology development according to Phase 2 of its Mine Damage Control Technology Strategy (2012~2016) and plans to establish mine damage control technologies in 7 fields to carry out development of mine damage control infrastructure and technologies. Mireco will use these developed technologies to maximize its efficiency by transferring the technology and filing for intellectual property rights. Furthermore, Mireco will actively respond to the changing policies and environment with regard to evaluation and analysis through the continuous improvement of the management system and maintain the international quality standards as a global evaluation agency. Mireco will also increase participation in the workmanship programs to maintain its internal and external trustworthiness.

Transfer of Promising Technology

Name of Technology	Type of Technology
Monitoring Technology of Micro Vibration	Know-How
Monitoring Technology of Multiple Temperatures (Thermal Line Sensing; TLS)	
Measuring Technology Using Load Cell	
Measuring Technology of Distributed Optical Fiber	
Manufacturing and Operating Technology of Expansion-Rupture Injection Method Lock Bolt	Industrial Property Rights (Patents, New Technology)

Middle and Long Term Strategies of Mine Damage Control Technologies



Technical Cooperation in and out of Country and Network Strengthening



Context and Challenge

Mireco endeavors to create technical cooperation in and out of the country for the improvement of mine damage control technology and to establish a foundation for advanced technologies.

Our Progress

Creation of Domestic Technical Cooperation of Mine Damage Control

Hosting of Mine Damage Control Engineering Forums and Research Council

Mireco annually hosts a mine damage control engineering forum with experts from industries and academia in the field to exchange technologies and cooperate with each other. This forum holds discussions about results of mine damage control technology development and future promotion tasks and debates between the industries and academia on ways to advance the technology and procure core technology and capabilities. The research council with the research institutes performing mine damage control research tasks provides the opportunity to exchange opinions on problems and solutions of research development. The matters brought and discussed in the engineering forums and councils are reflected in Phase 2 of the Mine Damage Control Technology Development Project to continually contribute to the creation of a cooperative foundation between the industries and academia.

Establishment of International Mine Damage Control Technological Cooperation

Hosting of International Joint Workshops for Mine Damage Control

Mireco hosted International Joint Mine Damage Control Workshops in Lam Pang in Thailand with the Department of Primary Industry and Mines (DPIM) of Thailand and the Electricity Generating Authority of Thailand (EGAT) on the theme of "Mine Damage Restoration Technology and its Application".

The workshop, hosted as a follow-up program of the engineering MOU signed respectively with DPIM and EGAT in 2011 to build the foundation for expansion into the Thai market, was attended by 180 experts from the industries and academia of Korea and Thailand. Mireco offered presentations on mine damage control technologies in each field and conducted visits to the operation mines in the country to learn the development and mine damage control status of the Thai mines in operation.

Promotion of International Technological Cooperation for Mine Damage Control

Mireco entered into a business agreement for mine damage control and coal/coal briquettes technological cooperation with the Agency for Geology and Mineral Resources of Uzbekistan in 2012 to secure a stepping stone of the expansion into Uzbekistan's mine damage control market. Mireco promoted 2 mine damage control projects with Vietnam, 2 mine damage control projects with Malaysia, and 4 mine damage control projects of mine damage evaluation of developing countries such as Laos while completing the basic design of the coal mine water treatment in Vietnam to secure the corporation's first international field-customized water treatment designing technology. Mireco also held 3 sessions of training technological programs, inviting public employees from 11 developing countries, and 2 sessions of educational programs on the mine damage control technologies in the areas of water and forests in Vietnam to publicize its domestic excellence and establish a foundation to create the environment to apply to the developing countries for the standing of the leader in the industry and expansion into the global market.

Next Step

Mireco will continue to prepare opportunities to exchange ideas through reinforced domestic and international networks in the future and achieve advancement in mine damage control technology by promoting various technical exchanges and cooperation in and out of the country.

Invited Training of Public Employees from CIS 5 Countries



Invited Training of Public Employees from 6 Southeast Asian Countries



International Joint Workshop of Mine Damage Control



Signing of Technological Cooperation Business Agreement with Uzbekistan



Establishment and Utilization of Mineral GIS with IT



Context and Challenge

Current Status and Imminent Tasks

Mine and mine damage information can be lost, creating problems due to the absence of a management system. Therefore, a systematic management system is needed. The inability to provide preliminary information in the establishment of mine damage control projects and the absence of reference material of mine-damaged environments during the execution of Social Overhead Capital (SOC) business can create problems due to the increasing demand for effective assistance in the decision-making process. Mireco combined GIS and IT to establish a system assisting the decision-making process in the mine/mine damage and mine damage control projects.

Our Progress

Systematic Mine/Mine Damage Informatization

Mireco started building GIS at all domestic mines in 2003 and completed the process for 100% of all domestic coal mines in 2009. The corporation started to build GIS on regular (metal/nonmetal) in 2010 and plans to gradually establish GIS on 700 regular mines (metal/nonmetal) by 2016. In addition, Mireco's accumulated 3-dimensional mine shaft construction technology won recognition by having the national patent registered and applying for the EU patent. Mireco utilizes cutting edge GIS and IT to continuously improve the system for mine damage control projects suitable for the field, increasing the efficiency and convenience of the mine GIS.

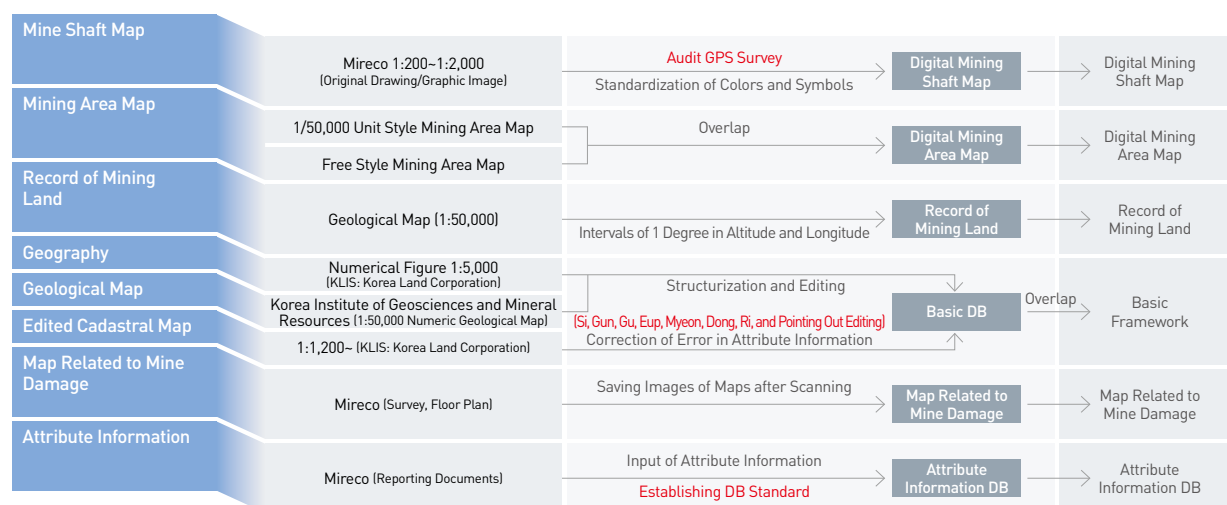
Establishment and Promotion of Mine GIS

2009	Completion of GIS Establishment of All National Mines (349 sites)
2010	Start of GIS Building of 152 Regular Mines (Metal, Nonmetal)
2011	Additional GIS Establishment of 314 Sites, Establishment at the Total of 663 Sites
2012	GIS Establishment of 108 Regular Mines (Metal, Nonmetal)
2013	In the Process of Building GIS of 150 Regular Mines (Metal, Nonmetal)

DB Content

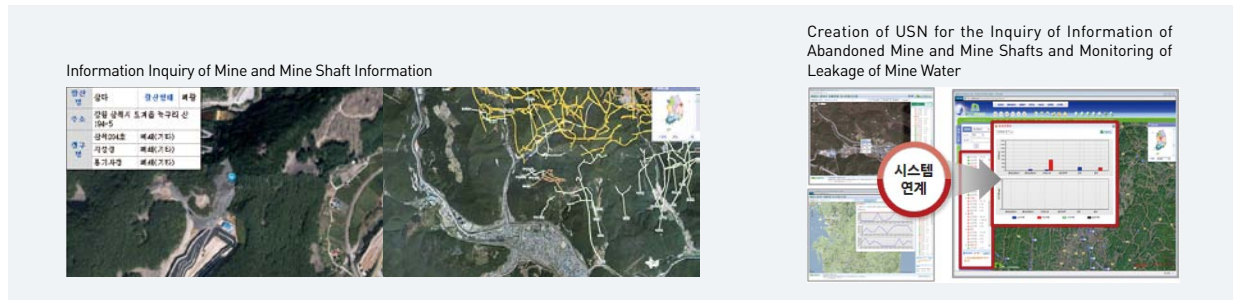
Mine GIS consists of basic mine information (national), mine shafts maps, aerial pictures, geological maps/national geography, cadastral survey, mining area maps, mining cadastral maps, and mine damage investigation information.

GIS DB



Mine GIS Service

Mine GIS develops a system suitable for field application through continuous analysis of the GIS and IT trend and collection of the users' suggestions. Mine GIS offers an inquiry and spatial analysis of the mine and mine shaft information, investigation material of mining conditions, and mine control project reports while providing incorporated information of agencies such as the Population Census and Intellectual Information for convenience. The Mobile Mine GIS System was developed and distributed on a trial basis to bolster the efficiency of field operations while USN (Ubiquitous Sensor Network) is in the works to connect the mine water leakage monitoring system to the Mine GIS for real-time mine damage monitoring.



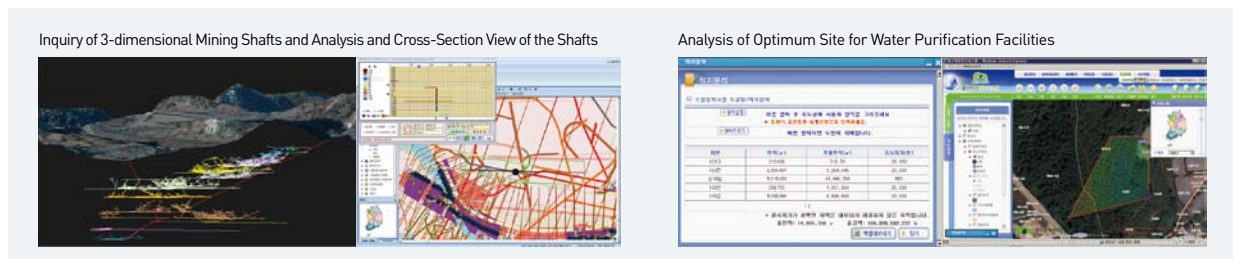
Next Step

Effective Assistance for Mine Damage Prevention Projects and Supplying Information to the National SOC Business

Mireco uses mine and mine damage information in its fact-finding survey of mine damage in its promotion of mine damage prevention business, uses 3-dimensional mine shaft maps analyzing the cross-sectional plans when conducting ground subsidence prevention projects, and considers this information in selecting sites for water purification facilities in the decision making process. Mireco also is providing information in relation to the private investment projects of the Gwangju-Wonju Highway and information related to the plan of the arboretum construction projects of Boryeong City Hall.

Mine Information Utilization Status in Relation to the SOC Projects

Organization Inquiring	Inquiries	Project Titles
Boryeong City Hall	Request of Mining Shaft Maps	Request of Document on the Surrounding Area of the Construction Site of Boryeong Mugungwha Arboretum
Sejong University	Request of Mining Shaft Maps	Request of Document on Underground Research Room Construction of Dark Material
National Geographic Intelligence Group	Request of Current Mining Information	Request of National Current Mining Information
Hanmi Corporation, Inc.	Request of Mining Shaft Maps	Request of Document on Private Investment Project (Zone 5) in Gwangju ~ Wonju (Second Youngdong) Highway



Training Specialists of Mine Damage Control Technology



Context and Challenge

Professional Training Programs of Experts Focusing on the Industrial Demand and the Applicability on the Field

Designation as the Professional Qualification Examination Agency in Mineral Resources

The demand to improve the corporation's performance of qualification examination business, applicability, and expertise arose in connection with the changes in the governmental policies and qualification examination environment concerning training experts in the field. Mireco was designated as the qualification examination agency in mine damage control at the end of 2008. The corporation started carrying out the qualification examination businesses in 6 fields of mineral resources (2 mine damage control fields in 2010) in 2012 in consideration of the government's intent to apply the industrial demand.

* Fields of Qualification in Mineral Resources:

Mine Damage Prevention Experts, Mine Damage Engineer, Mine Security Engineer, Mine Damage Security Industrial Engineer, Mine Security Technician, Drilling Technician

Our Progress

Improvement of Expertise and Application of Practicality

Mireco operates its Qualification Improvement Committee to enhance the expertise of persons involved in the qualification process (examiners, employees) and conducts educational workshops on test methods, lectures, and field trips so that qualification experts can learn the applicable knowledge. Mireco shares the examination method with the qualification consignment agencies (6 qualification agencies). The corporation has also entered into an engineering agreement with Jangseong Mining Station of the Korea Coal Corporation and the Human Resources Training Center of the Korean Mineral Resources Corporation to secure practical qualification locations to produce experts through the effective implementation of qualification examinations, applying the practical knowledge of the field.

Examiners Qualification Workshops and Application of Practicality

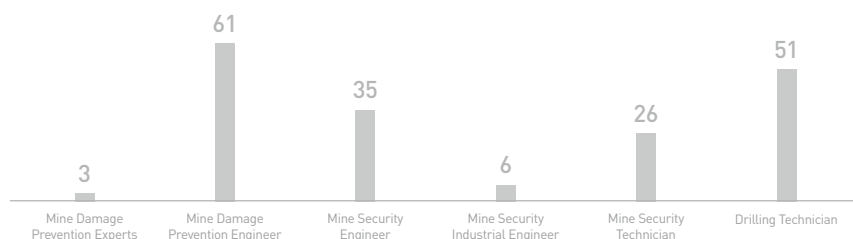


Training Status of Experts

Mireco increased the utilization rate of industrial examiners (60% in '11 → 71% in '12) to apply the field demand and carry out the practical function of the qualification examination, producing 3 experts, 96 engineers, 6 industrial engineers, and 77 technicians in 2012. The persons acquiring qualification are successful in seeking employment in the field of mine damage control business.

Number of Persons Acquiring Qualification

(Unit: Number of People)



Business Meeting for Consignment of Qualification Agency



Employment Status of the Qualification Acquirer's Employment in the Special Businesses (Unit: Number of People)

Category	Special Businesses	
	2011	2012
Mine Damage Prevention Experts	35	40
Resources Management Experts	56	53
Mine Damage Prevention Engineer	11	10
Mine Security Engineer	74	71
Mine Security Industrial Engineer	6	4
Total	182	178

* Overlap likely in the number of persons seeking employment

Education after Qualification of the Qualification Acquirers

Mireco provides practical education (field experience) after the qualification of the qualification acquirers, the first among the qualification examination agencies, to improve their capabilities and quality of the business. The post-qualification education of experts of mineral resources management was provided twice in 2012 in the first and second half of the year: 103 people attended to learn the practical knowledge of the field and policies related to eco-friendly resource development. The satisfaction rate of the education was recorded at 87%, which is generally high. This post-qualification education increased the job performance level of the qualification acquirers and elevated the prestige of the corporation as a special qualification examination agency.

Education of the Mine Resources Experts after Qualification

**Next Step****Criteria of the Examination Revised to Reflect the Industrial Demand of the Field (Practicality)**

Mireco revised the examination criteria following the application of sunset law ('07~'13), reflecting the industrial demand of the field (practicality) to improve the value of the resources and to produce experts. In the field of mineral security, the examination criteria changed from the focus on the coal mines to the full cycle of resource development (mineral, oil) and mine security practical business for the application of field demands and training experts, connecting qualification-education-employment.

* **Full Cycle of Resource Management:**
Investigation, Exploration – Development,
Production – Eco-friendly Restoration

Mutual Growth and Cooperation



Context and Challenge

Establishment of the Foundation for the Promotion of Mine Damage Prevention Projects

Mireco established 2 stages for the Mine Damage Prevention Basic Plan (2012~2016) based on the national mine damage occurrence investigation, won the certification from the Ministry of Industry, Commerce, and Resources, and established the promotional foundation.

2 Stages of Mine Damage Prevention Basic Plan

(Unit: Hundred million won)

Mine Types	2012		2013		2014		2015		2016	
	Number of Sites	Business Expense	Number of Sites	Business Expense	Number of Sites	Business Expense	Number of Sites	Business Expense	Number of Sites	Business Expense
Operating Mines	66	195	81	188	71	180	78	181	90	186
Abandoned Metal Mines	90	475	64	487	45	421	102	402	122	501
Abandoned Coal Mines	34	247	35	204	30	244	53	256	68	151
Abandoned Asbestos Mines	11	107	11	230	6	216	7	259	6	223
Total	201	1,024	191	1,109	152	1,061	240	1,098	286	1,061

Management of Professional Mine Damage Prevention Projects

Mireco supports professional mine damage prevention businesses¹⁾ in terms of their engineering ability and equipment for specialists with technology and management experience to realize their expertise and effectiveness when they register. Mireco strives for mutual cooperation and growth out of active collaboration with mining right holders and professional mine damage prevention businesses and provides continuous educational opportunities.

1) Professional mine damage prevention businesses are businesses that are registered under Article 13 of the Law on Mine Damage Prevention and Reclamation for the effective performance of mine damage prevention projects.

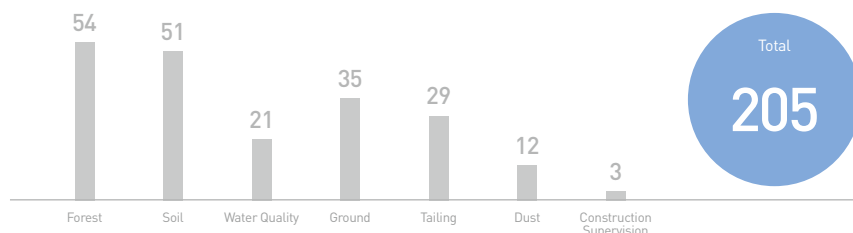
Registration Criteria of the Professional Mine Damage Prevention Businesses

Category	Registration Criteria
Capital	Fulfillment of a Hundred million won in Each Field of Expertise
Engineering Capability	Engineering Capability in Each Field of Expertise (in Each Field: 6 People, Construction Supervision: 10 People)
Equipment	Possession of Necessary Equipment in Each Field of Expertise
Prohibition of Holding Multiple Jobs	Prohibited to Register for More than 3 Fields of (Excluding Construction Supervision)



Registration Status of Professional Mine Damage Prevention Businesses

(As of December '12, Unit: Number of Businesses)



*Prohibited from Registering in More than 3 Fields of Expertise (Excluding Construction Supervision)

Our Progress

Hosting Open Workshops on Mutual Growth

Mireco holds open workshops twice a year (once in the first half, and another in the second half) to share the corporation's vision and strategies with professional mine damage prevention businesses to communicate and gather opinions to achieve the management goals and apply them in the planning stages. Mireco also endeavors to make fair contracts through fair notice of bidding and sharing of information.

Category	Time	Participants	Content
Open Workshop on Mutual Growth in First Half of the Year	July 30, 2012	Approximately 100 People	Meetings, Education, Dialogue with CEO
Open Workshop on Mutual Growth in Second Half of the Year	December 20, 2012	Approximately 60 People	Lectures, Seminars Dialogue with CEO



Next Step

Establishment of Foundation for Mutual Growth through System Improvement and Fair Management

Participation in the mine damage prevention business by small and medium businesses increased by 14.7% in the amount of capital compared to last year, thanks to the corporation's continuous system improvement and operation. Mireco secured a budget of 88 billion won in the mine damage business expenses for 2013, a 6 billion won increase from last year, to contribute to the direct and indirect creation of local job opportunities in the private sector.

(Unit: Hundred million won)

Category	2011	2012	Increase Rate
Purchase Amount from Small and Medium Businesses	67,260	77,169	14.7% Increase

Mireco strives to strengthen the foundation for mutual growth with the mining right holders and professional mine damage prevention businesses through the introduction of governmental policies, distribution of mine damage prevention technologies, expansion strategies in the overseas markets, and management consultations to maintain a continuous channel of communication with them.

Purchase from Small and Medium Businesses



Context and Challenge

Mutual Growth, Coexisting Cooperation

The government has demonstrated strong support for mutual growth with the small and medium businesses in its laws and tasks such as “100 National Tasks” and “Law on Promotion of the Purchase of Small and Medium Businesses and Support of the Market” and evaluates the purchase amount, purchase rate, and purchase efforts from small and medium businesses. Mireco performs various activities under the governmental policies for mutual growth and coexistence with small and medium businesses.

Our Progress

Purchase Efforts from Small and Medium Businesses.

Mireco uploaded and managed the 940 thousand cases of documents provided by the Small and Medium Businesses Administration on the corporation's DB to encourage prioritized purchase of goods from the small and medium businesses. Instructions on how to purchase from small and medium businesses are contained in the governmental purchase book of guidelines for the convenience of employees. All employees received education to learn the importance of mutual growth thorough government-hosted workshops and seminars by the Small and Medium Businesses Administration and the Ministry of Health and Welfare. Mireco also drew up 7 cases of documents for effective purchasing from the small and medium businesses and put a cap on large businesses' participation in the bidding process to give a competitive edge to the small and medium businesses while introducing meetings and a performance goal responsibility system for the continual increase in purchases from small and medium businesses.

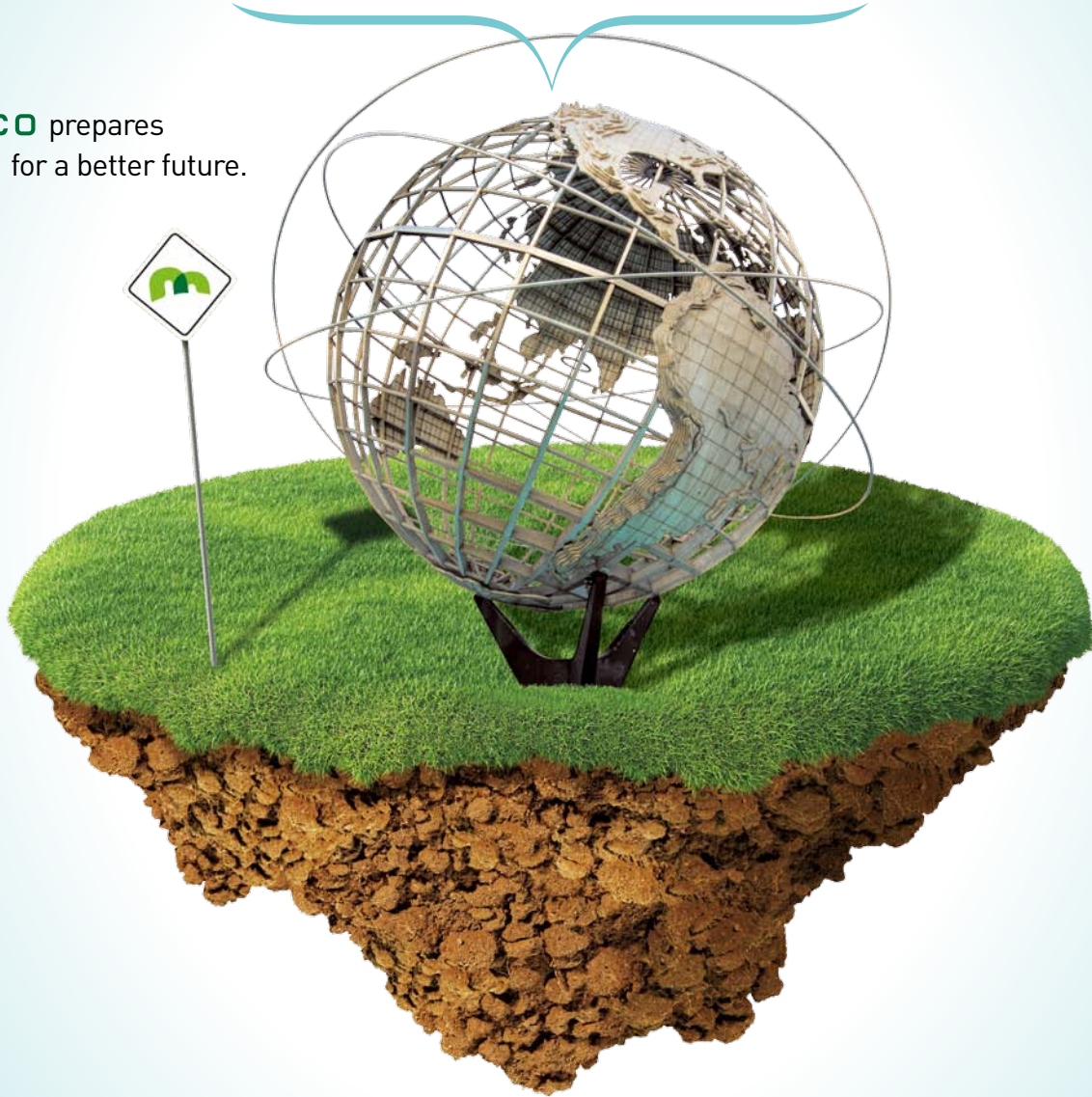
Next Step

Mireco achieved in increase of results in all governmental evaluation indicators related to purchase, and earned a perfect score of 100 points in the areas of small and medium businesses and development of technology goods. Mireco plans to achieve a perfect score in all indicators related to purchases by working on the weaker areas.

Purchase Category		2011	2012
Goods of Small and Medium Businesses	Amount (million won)	76,286	84,745
	Rate (%)	86.17	90.17
Goods of Female Businesses	Amount (million won)	394	3,473
	Rate (%)	0.45	3.7
Goods of Social Corporations	Amount (million won)	212	376
	Rate (%)	0.56	0.88
Goods from War Veteran's Community	Amount (million won)	1	5
	Rate (%)	15.18	37.96
Goods of Technology Development	Amount (million won)	167	708
	Rate (%)	5.06	11.08
Goods from the Severely Disabled	Amount (million won)	228	293
	Rate (%)	0.61	0.69

Expansion into Global Mine Damage Control Market

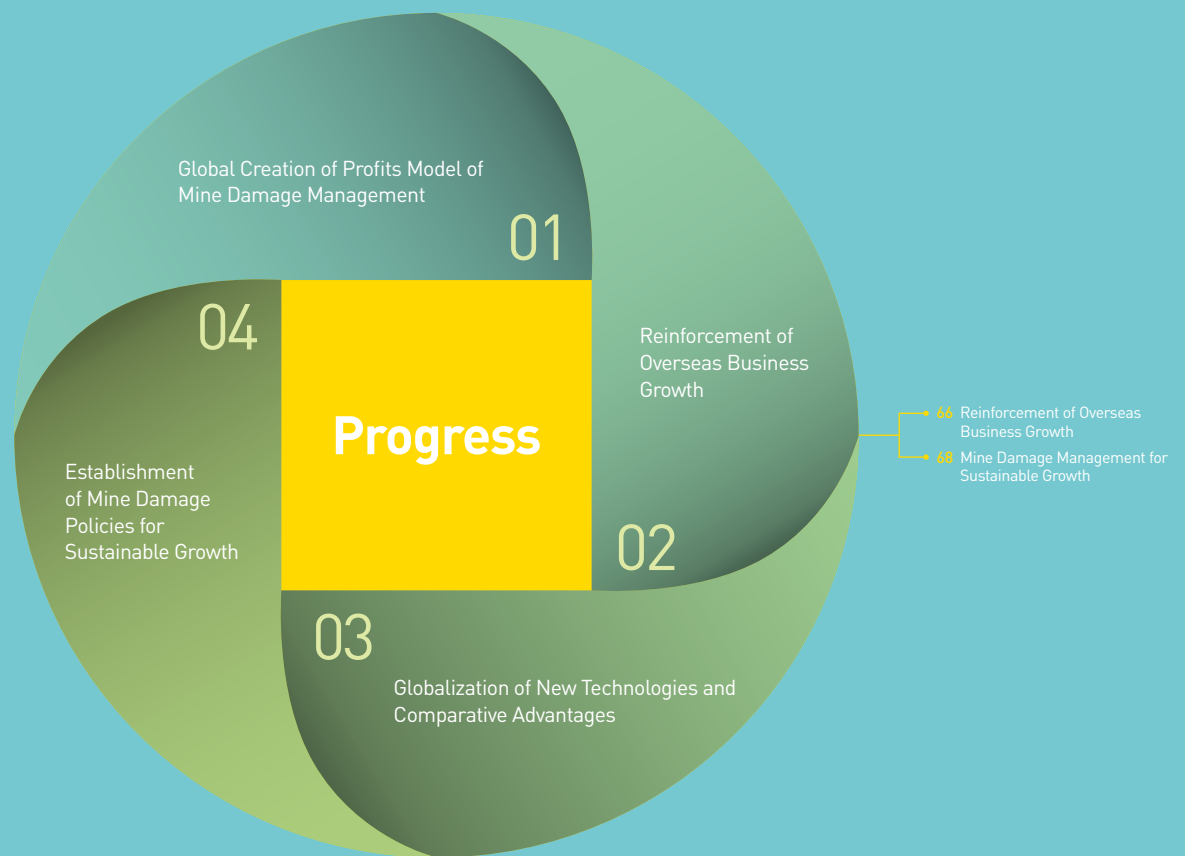
mireco prepares
for a better future.



Overseas projects are crucial for the future of Mireco. Sustainability is an emerging issue in the international community, and environmental awareness is increasing. Expansion into the overseas market also presents new challenges and opportunities. Mine damage control technology is related to various projects with higher added value, promising to create a brighter outlook for the future. Mireco's International Relations Business Center is seeking to expand beyond the existing Central and Southeastern Asian market into Columbia and Chile.

Issues

- Increased Expansion into Global Mine Damage Control Market
- Intensified Competition for Resources Procurement (Resource Nationalism)
- Strategies for the External Environment
- Globalization of Market, Competition, and Supply Chain (FTA)



Key Performance Indicators

Key Performance Indicators	2011	2012	Office in Charge
Increase in the Sales of Overseas Business (hundred million won)	14.9	18.7	International Relations Business Center

Next Step

Mireco promotes overseas projects using its independently acquired technology and network. Mireco will expand overseas into the Middle and Southern America markets and Southern Asia market to share the corporation's core technologies. The corporation plans to build a strategic access system to reinforce the foundation of growth in the area of overseas business.

Bolstering Foundation for Growth in Overseas Business

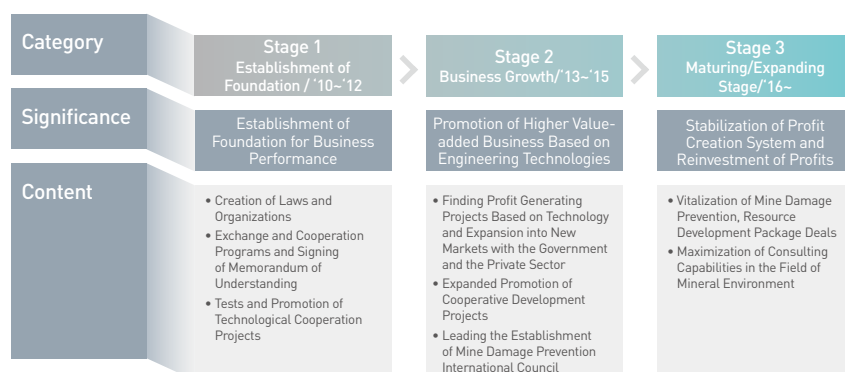


Context and Challenge

Performance Roadmap of Overseas Projects

Mireco is striving to promote overseas projects and create results to attain sustainable growth as growth potential is limited in the domestic mine damage control market. The corporation established the foundation for growth in overseas business and promoted higher value-added projects based on engineering technologies to build a 3-stage roadmap for the management of major results and accomplishments in its middle and long term projects. Mireco also categorized the projects into 4 different groups—focus, selection, strategies, and management—into different groups of countries for strategic access to each market and country.

Performance Roadmap of Overseas Projects



System of Market Categorization

Category	Characteristics	Relevant Countries
Focus Market	Markets with the Highest Priority, Charm, and Suitability Promising the Most Results out of the Limited Resources	Mongolia, Indonesia, Philippines, Myanmar, Uzbekistan
Selection Market	Markets with the Highest Priority, Charm, and Suitability Promising the Most Results out of the Limited Resources	Vietnam, Kyrgyzstan, Kazakhstan, Malaysia, Thailand, Laos
Strategic Market	Charming Market, but Requiring Middle and Long Term Strategies to Satisfy the Need of the Market through Capabilities Development	Australia, Peru, Chile, Mexico, South Africa, Ghana, Columbia
Management Market	Markets Requiring Continuous Monitoring with Less Charm and Suitability	India, Ukraine, Turkey, Bolivia

Our Progress

Efficient Promotion of Business

Mireco conducted "field seminars" to exchange and cooperate between the field and consumers for the effective promotion of business and saved costs worth 799 million won through the substitution of training with seminars. The establishment of expense spending and calculation standards reduced the operation cost per person by 17% compared to last year, and the introduction of result goals responsibility system reduced the 283 million won of operational cost to achieve the rationalization of spending. Mireco also utilized TF to operate a matrix-type structure for each field of business to improve efficiency and reformed the structure to enhance the decision making process, reducing the period of overseas business from 14 months to 7 in 2010.

Field Inspection of the Philippines' Lapu-Lapu Mine for Consulting



Major Results and Accomplishments

The results of the Stage 1 of the Middle and Long Term Strategies for Overseas Business that had been in progress for 3 years since 2010 established new laws and structure to secure human resources while preparing cooperative networks and promoting trial projects and international technological cooperation. Mireco will develop profit generating overseas projects models through the cultivation of the business mindset and utilize the existing network to continuously expand into the overseas market.

Results of the Stage 1 of the Middle and Long Term Strategies for Overseas Business

New Establishment of Law and Structure. Procuring Human Resources

- Enactment · Revision of Overseas Business Laws
- Founding a Department In Charge of Overseas Business
- Securing Human Resources (Increased Capacity)

Preparation of Cooperative Network

- International Seminar (Symposium), Invited Training of Public Employees from Developing Countries (14 Sessions/259 Employees)
- Signing Agreement with 17 Agencies in 8 Countries

Trial Projects / Promotion of Technological Cooperation

- Obtainment and Promotion of ODA Contract for the First in the Field of Mine Damage Control (Mine Damage Evaluation in Mongolia, 3 million dollars)
- Sales of 2,102 million won in 9 Cases

Seminars in Columbia and Chile



Signing of Agreement of Overseas Mutual Growth



Current Status of Overseas MOU Agreements and Overseas Contract Obtainment in 2012



Status of Overseas MOU Agreement in 2012

04-26	Malaysia	Mines and Geosciences Bureau	Technological Cooperation on the Drainage Treatment of Mamut Abandoned Mine
04-25	Philippines	Mines and Geosciences Bureau (MGB)	Agreement on the Restoration of Philippines Mines
06-22	Chile	Mining Industry Department	Increased Relations and Cooperation with Chilean Government on Mine Damage Prevention and Joint Promotion of Relevant Projects
06-25	Columbia	Mineral Energy Department	Increased Relations and Cooperation with Colombian Government on Mine Damage Prevention and Joint Promotion of Relevant Project
09-07	Uzbekistan	Agency for Geology and Mineral Resources	Joint Evaluation of Geo Environmental Impact and Technological Exchange and Cooperation
11-22	Ukraine	Eco Natural Resources Department	Cooperation on Mine Damage Prevention for Sustainable Development of Resources



Current Status of Overseas Contract Obtainment in 2012

January 2012 ~ February 2012	Local Seminar on Mine Damage Control for Sustainable Development of Resources	Uzbekistan
February 2012 ~ February 2013	Assistance of Mongolian Establishment of Policies and Systems and Consulting Business	Mongolia
February 2012 ~ December 2012	Training Specialists in 6 Southeastern Asian Countries and Mentoring	Indonesia, Malaysia, Thailand, Myanmar, Laos, Philippines
May 2012 ~ August 2012	Engineering Consulting of the Extension of RHT Gwangmi Dam	Malaysia
April 2012 ~ April 2014	Joint Project for the Mamut Mine Drainage Treatment	Malaysia
May 2012 ~ December 2012	Promotion of Mine Damage Restoration of Baganuur Coal Mine	Mongolia
June 2012 ~ July 2012	Consulting of Oilfield Drilling Treatment Method of Petro Matad	Mongolia
July 2012 ~ September 2012	Mine Damage Restoration of Energy Resource	Mongolia
October 2012 ~ December 2012	Assistance of Establishment of Mine Damage Control System for Eco-friendly Mine Development of Central and South America	Chile, Columbia



Mine Damage Control for Sustainable Growth



Context and Challenge

Sustainable growth is one of the representative global development agendas which is steadily debated throughout international society in the U.N. Conference for the Environment and Development (1992) and the World Summit for Sustainable Development (2002) after it was first introduced in 1987 in the U.N. General Assembly. The global mineral industry, recognized as the main source of environmental contamination, preemptively responded to the social and environmental regulations of international society and the economic, environmental, socio factors were considered as significant in all stages of mining activities. Advanced countries are aware of the importance of principles such as the environment, safety, health, and coexistence with the local community as well as the effective development of resources to realize the sustainable growth of the mining industry and have shared successful cases with the rest of the world.

Our Progress

Mireco has worked diligently to fulfill its various social and public responsibilities after the corporation's establishment in 2006 to contribute to the pleasant environment of the mining areas and development of local economies based on public interests.

Contribution to Local Society

Mireco established a 1-1 sisterhood relationship with the national mining areas for active exchanging activities and assisted low-income families with the coal briquettes safety compensation program to realize the energy welfare for the price stabilization and the lifestyle of the working class.

Photo of National CSR



Engineering Infrastructure for the Sustainable Development of Mines

Mireco uses its accumulated experience and engineering capability following the successful promotion of domestic and international mine damage restoration projects and economic revitalization of mining areas for the eco-friendly resource development of international society. The corporation also continuously develops world-class mine damage prevention specialized technology and shares it with the developing countries to contribute to the increased mine damage control capabilities of underdeveloped countries. Mireco continually invites public employees from 20 nations, starting in 2008, to train them in mine damage control abilities, passing on Korean experience and technologies to developing countries.

Invited Education of Overseas Public Employees



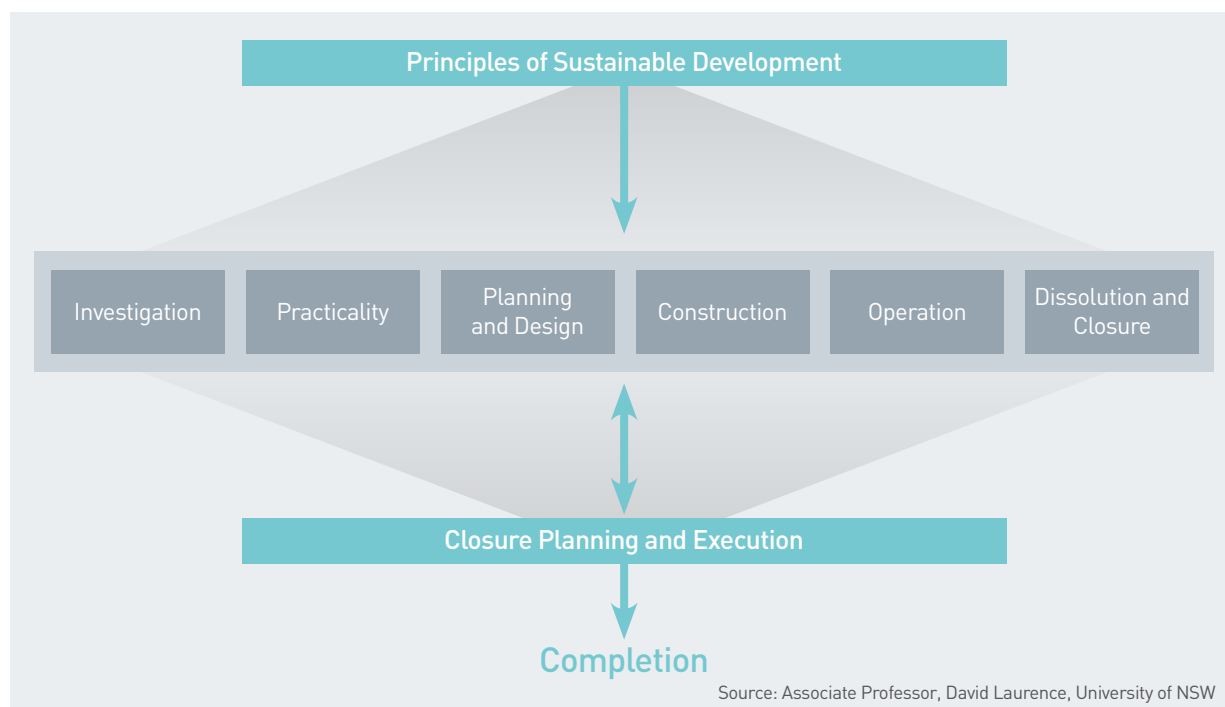
International Test Projects

Mireco expanded the global mine damage control cooperation foundation into Central and Southern America in 2012. A trial application of the “Eco-friendly Removal of Harm from Mineral Residue” treatment method, a crucial technology of the corporation, was successfully implemented in the development process of the gold mine with a local private resource development corporation in Columbia. The removal of harm process from the mineral residue is a crucial part of Mireco’s technology that reduces the source of contamination in the process of extracting gold. This improves the environment and increase the return rate of the valuable metals, securing profitability.

Establishment of Guidelines to Reinforce the Ethical Awareness of Overseas Business

Refer to the “Guidelines to Reinforce the Ethical Awareness of Overseas Business” on page 90

Mireco entered into an MOU with foreign governments and agencies for increased expansion into the global mine damage prevention market and hosted overseas training and seminars to increase the chances of relations and proactively seek business opportunities. To this end, Mireco established the “Guidelines to Reinforce the Ethical Awareness of Overseas Business” in August 2013 to reinforce its responsibilities in regard to the impact on foreign governments in the course of Mireco’s business in the market. This principle was developed to establish fair and clean ethical business practices with foreign governments and agencies, prevent corruptive risks in advance, respect the public political process with responsible participation in the politics, and encourage the development of public policies that benefit local societies.



Next Step

Mireco will actively apply the “Guidelines to Reinforce the Ethical Awareness of Overseas Business” in the course of promotion for ethical management, operating an effective system to improve the employee’s awareness and performance for the establishment of fair and legitimate business practices.

Establishment of Sustainable Infrastructure

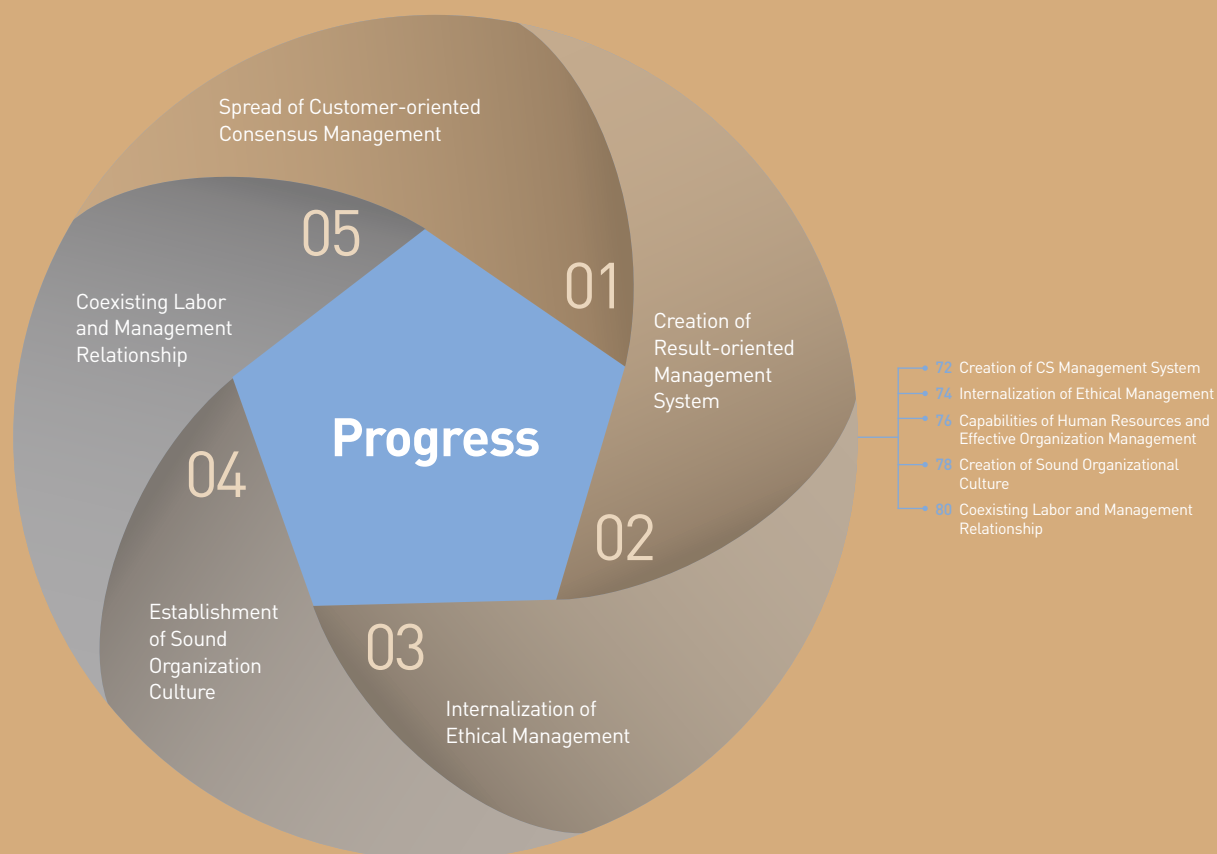
mireco is
always happy.



Mireco is realizing a happy workplace through the introduction of GWP (Great Work Place), harmonization, and communication. The achievement of vision and response to environmental changes promoted the reform of the structure, focusing on the production of results with every member steadily striving to develop their capabilities. The human resource management system focused on accomplishments is in place, and open hiring and a flexible work schedule suitable for the characteristics of the corporation were introduced to create a positive culture that balances work and family life and establish a sustainable infrastructure.

Issues

- Increased Demand for Transparency
- Increased Significance for Securing Competitive Human Resources
- Anti-corruption (Integrity)
- Increased Accessibility to Information (Internet, SNS)
- Increase Necessity for Responding to Various Laws and Legal Systems (Governmental Policies, Compensation)
- Increased Number of Customers Prioritizing the Environment and Society
- Increase in Various and Challenging Customer Demands
- Support of Customer Service and Resolution of Complaints and Conflicts
- Increased Demand for Employee's Welfare (Balance between Work and Life)
- Protection of Personal Information of Customers
- Fundamental Principles and Rights in Labor
- Hiring (Gender, New, and Temps)



Key Performance Indicators

Key Performance Indicators	2010	2011	2012	Office in Charge
Number of Employees (Male/Female, Permanent/Temporary)	157/45, 175/27	162.5/46.5, 193/10	176/56, 207/15	Management Support Office
Turn-over Rate (%)	2.92	4.23	0	
Hours of Education per Each Employee	35.46	16.62	27.35	
Satisfaction Rate of Benefits Package (%)	91	94	97	
Number of Injuries/Injury Rate (%)	4 / 2	0	0	
Survey Result of Customer Satisfaction (Points)	98.4	98.2	98.3	Planning and Coordination Office
Mireco Ethical Index (MEDEX) (Points)	72.2	76.9	80.6	Management Support Office

Next Step

Mireco is continuously seeking ways to listen to the voices of the customers and promptly respond to them. Mireco communicates with the customers through SNS and plans to strengthen the management and security system of customer information. Various educational opportunities will be given to employees to boost the organization's competitiveness, and the improvement of the selective welfare system will bring balance between work and life.

Creation of CS Management



Context and Challenge

Mireco listens to the voices of customers to provide the best service, create its customer satisfaction management system for periodic maintenance, and resolve any complaints.

Our Progress

Activities of Promotion Leaders for Customer Satisfaction

Mireco selected the promotion leaders for customer satisfaction in each department of the headquarters and regional branches, manages VOC (Voices of Customers) and resolves complaints in various ways to fulfill the needs of customers. Mireco also provides education on customer satisfaction and responding to customers, and hold meetings of promotion leaders for customer satisfaction on a regular basis to encourage thinking from the customer perspective.

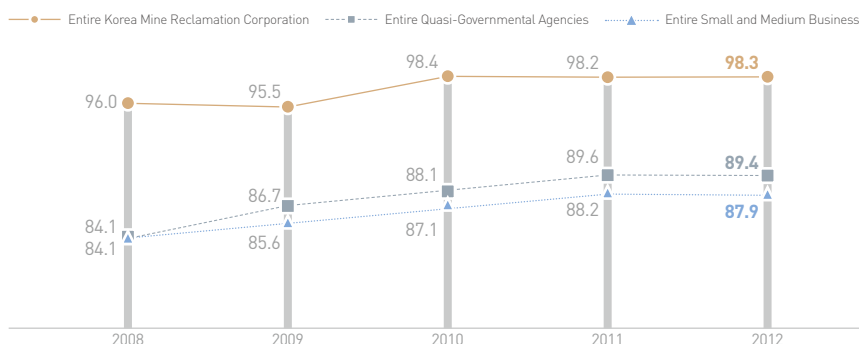
Customer Satisfaction Rate Survey by the Ministry of Strategy and Finance

Mireco conducts a one on one interview survey of all adults over the age of 19 who have received service from the corporation more than once; this survey is annually hosted by the Ministry of Strategy and Finance to evaluate the customer satisfaction rate of the public corporation. Applicants for the qualification examinations were added in the survey in 2012 to the existing group of applicants for the coal price stabilization compensation, recording a high score of 98.3 in the fields of quality index, satisfaction index, and results index. Mireco has maintained its position as an organization with an excellent customer satisfaction rating for 5 consecutive years.

Checking Compliance with the Customer Service Charter

Mireco checks compliance with the performance standard of the crucial service at the end of each year by establishing a customer service charter in every field of business. The 4 items for inspection include the soil contamination standard and water contamination standards in mine damage control and restoration projects requiring an annual thorough evaluation and inspection. Mireco will prepare a company-wide performance standard of responding to customers to provide the best service to them.

Results of the Customer Satisfaction Survey of the Public Corporations in 2012



Promotional Structure of Customer Satisfaction



Next Step

Strengthened Communication with Customers

Mireco operates a two-way communication channel with customers through SNS such as Facebook and Twitter. The fan page “Mireco Story” on Facebook introduces the corporation and shares stories to sympathize and listen to the voices of customers, free from the usual limitations of time and space. Twitter also conveys accurate information for customers in real-time, quickly and easily responding to them. Mireco will become closer to customers by providing various contents and useful information.

Mireco Facebook Fan Page



Mireco Twitter



Increased Protection of Personal Information

Frequent occurrences of security accidents are happening, resulting in large scale leakage of personal information through cyber terrorism such as hacking of computer networks. Mireco exercises complete management of the leakage, forgery, and alterations of customers' information to prevent these problems and has recorded zero cases of violation of personal information of customers, leakage of information, complaints, and unlawful cases related to personal information reported to the corporation.

Protection and Management of Personal Information

Mireco collects a minimum amount of personal information after obtaining consent from users, and the information is encrypted and managed through the constant monitoring system of personal information that was independently developed by the corporation. A manager of personal information protection or person in charge is designated to stop the hacking and leakage of personal information in advance. The I-PIN Service for outside services and IP-block of harmful sites is implemented by working with the Cyber Security Center of the Ministry of Industries, Commerce, and Resources to improve our system's cyber security. The certification system for preexisting users, network security system, and control system for external devices are continually updated. Mireco has also newly established a preventative system against Zombie PCs and response system to DDoS to create a uniform management system for customers' personal information, both internally and externally. Mireco will strive to realize an advanced managerial, physical, and technical security system to bolster customer credibility in and out of the country.

Monitoring System of Network Security



Internalization of Ethical Management



Context and Challenge

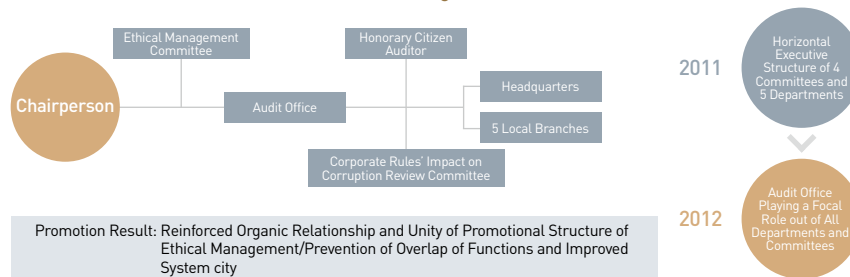
Challenges and Opportunities of Ethical Management

Mireco strives to secure the public's trust through responsible management activities as a public corporation entrusted with ensuring the rights to health of the residents in abandoned mine areas and the public while its employees conduct business with fairness and an ethical mindset. Mireco will reestablish the strategies for its vision as a "Clean Mireco", fully understanding the customers' perspectives to draw specific strategic tasks to achieve improvement of public's credibility, mutual cooperation with stakeholders, and voluntary exercise of ethical management.

Promotional Strategies of the Ethical Management



Promotional Structure and Results of Ethical Management



Our Progress

Ethical Management and Anti-corruption Promotion Activities

Mireco reformed the diversified promotional structure to focus on the department in charge of ethics, along with the newly established strategic goal to expand the processing channels for reporting unethical and illegal acts. In addition to the preexisting complaints and clean reports, methods for reporting illegal activities arising in the course of business under the "Law on Mine Damage Prevention and Restoration" were prepared, and an anonymous reporting system for requests for favors in the course of business was introduced. Voluntary study of the rules instead of relying on outside lectures was encouraged inside the corporation, and promotional tasks were executed in accordance with the corporation's strategic goal of "Voluntary Exercise of Ethical Management", such as the "Integrity Education Delivered at Your Convenience" by the department in charge of ethical management and "Voluntary Study of Ethical Management" in each department.

Status of Ethical Education of 2012

Category	Time / Number of Sessions	Content of Education
CEO Special Lecture	March 9, October 15	Importance of Ethical Management, Increased Awareness of Ethical Management
Outside Expert Lecture	May 30	Traditional Ethical Management of Korea, Trends in National and International Ethical Management
Online Lecture	August 20 ~ September 9	National Competitiveness in the 21st Century, Integrity Management
Integrity Education Delivered at Your Convenience	4 Sessions	Integrity Education, Code of Conduct for Employees
Voluntary Study of Ethical Management	15 Sessions	Utilization of the Educational Content of the Anti-corruption, Civil Rights Commission (Ethics, Integrity, and Anti-corruption)

Monitoring of Ethical Management

The internal monitoring system of the corporation is categorized generally into ethical management, integrity, and audit excluding the external audit and review. Various channels as follows were introduced to improve weak points and prevent corruption.

Monitoring System of Ethical Management

Category	Monitoring Channel	Content
Ethical Management	MEDEX (Ethical Index)	Evaluation of All Employees' Awareness of Ethics and Culture
	Internal Review (KPI)	Nonmetrical Review of Ethical Management (Social Responsibilities) Efforts
Rate of Integrity	Integrity Review of Executives (Internally)	Evaluation of Anti-corruption and Integrity Level of Executives
	Integrity Mileage	Survey of All Employees' Code of Conduct and Integrity Activities
Audit	E-Auditing System	Constant Monitoring of All Businesses
	Regular, General, Special, and Public Order Audit	

Internal Evaluation Results and Reflux

Category	2011	2012	Evaluation Results
MEDEX	76.91Points	80.56Points	Need to Reinforce Feedback of Ethical Management → Improvement of Review System
Integrity Review of Executives	93.47Points	95.5Points	Example by the Executives and Expansion of Communication between Employees → Expansion of Integrity Education of the Executives
Integrity Mileage	Outstanding (Gangwon)	Outstanding (Qualification Examination, Gangwon)	Rewarding the Outstanding Department → Improvement of Equality according to the Size of Department

Next Step

Selection as Excellent Agency in Anti-corruption Competitiveness Review

Mireco scored excellent ratings in the integrity and anti-corruption competitiveness review hosted by the government, progressing one step closer to achieving its vision as a Clean Mireco. In 2012, Mireco scored 9.01 in the external integrity level evaluated by customers, earning inclusion into the excellent group; this is particularly high compared to the average of 8.71 for public service-related organizations and 8.10 for all organizations. Mireco scored high in points in the review fields of offering money and valuables, offering conveniences, pursuing private profits, and receiving favors, demonstrating the corporation's efforts in the field of ethical management last year. The internal integrity level rose by one grade compared to the previous year, pushing the general integrity level of the corporation one step higher than last year to that of an excellent agency. The corporation's level in the anti-corruption competitiveness review rose consistently from Grade 5 in 2010 to reach Grade 2 in 2012. Mireco will continue its efforts for anti-corruption and ethical management to become an advanced and ethical organization.

Levels and Ranks in the Integrity and Anti-corruption Competitiveness Review

Category		2010	2011	2012
Result of Integrity Review by the Anti-corruption and Civil Rights Commission	General Integrity Level	Level 2 [8.98]	Level 3 [8.78]	Level 2 [8.67]
	External Integrity Level	Level 1 [9.35]	Level 3 [9.03]	Level 2 [9.01]
	Internal Integrity Level	Level 4 [7.96]	Level 4 [8.07]	Level 3 [7.85]
Result of the Anti-corruption Competitiveness Review by the Anti-corruption and Civil Rights Commission		Level 5 (Poor)	Level 3 (Average)	Level 2 (Excellence)

Operation Results of Auditing Activities

General Auditing

- Quality Examination of Coal and Coal Processed Goods Revision of Business Guidelines
- Revision of Operation Guidelines of Mine Damage Prevention Projects of Operating Mines

Special Auditing

- Improvement of Rationality in the Selection of Examiners of Academic, Research, and Services

Field Investigation of Public Order

- Observance of the Civil Complaints Resolution Period when Checking the Civil Complaints Treatment Reality
- Prohibition of the Personal Use of Corporate Vehicles when Checking the Management Status of Corporate Vehicles

Capability of Human Resources and Efficient Operation of Organization



Context and Challenge

As the issues of youth unemployment and employment stability are growing social issues, Mireco endeavors to create socially equal job opportunities as a public organization.

Our Progress

Status of Employees

As of the end of 2012, there are 207 permanent employees including 4 executives, 5 temporary employees, and 10 youth interns working for Mireco with a total of 232 employees. There are 129 employees in Headquarters, 72 in Local Branches, 29 in the Mine Damage Control Technology Institute, and 2 in the Mongolian Office. There are 56 female employees, occupying 24% of all employees. The average turn-over rate of the corporation for 3 years since 2010 stayed at 2.4% while the average term of employment has been maintained at 8 years and 10 months. A uniform wage structure that does not exercise any gender discrimination is in operation.

Current Number of Employees

(Unit: Number of People)

Category		2010	2011	2012
Current Number	Executives	4	4	4
	Employees	171	189	203
	Total	175	193	207
Gender	Male (Including Temps and Interns)	157	162.5	176
	Female (Including Temps and Interns)	45	46.5	56
Employment	Permanent	175	193	207
	Temporary	27	10	15
	Interns	-	6	10
Location of Employment	Domestic	142	140	158
	Local	58	67	72
	Overseas	2	2	2
Number of Employment	(Permanent)	9 Years	8 Years and 8 Months	8 Years and 9 Months
Turn-over Rate	(Permanent)	2.92%	4.23%	0%

* Honorary Resignation and Regular Retirement Excluded from the Turn-over Rate

Current Number of Employees according to Employment Contracts

(Unit: Number of People)

	Number of People	Male	Female
Permanent	203	159	44
Temporary	15	8	7
Interns	10	5	5

New Hiring Status in Terms of Age

(Unit: Number of People)

	Number of People	Male						Female					
		Teens	In the 20s	In the 30s	In the 40s	In the 50s	In the 60s	Teens	In the 20s	In the 30s	In the 40s	In the 50s	In the 60s
Permanent	13		11		2								
		0	9	2	0	2	0						
Temporary	6		3										
		0	1	1	1	1	2						
Interns	14		7										
		1	6	0	0	7	0						

Resignation Status in Terms of Age

(Unit: Number of People)

	Number of People	Male				Female			
		In the 20s	In the 30s	In the 40s	In the 50s	In the 20s	In the 30s	In the 40s	In the 50s
Temporary	2		1						
Interns	4		2						

Open Hiring

Mireco strives to exercise socially equal hiring by hiring local talents, considering the rate of female employees, hiring the disabled, and finding talent among natural science and engineering majors. The corporation is also revitalizing the youth intern system by hiring 67% more youth interns compared to last year. Mireco aims to provide equal opportunities in hiring and awards additional points to the socially disadvantaged to promote social equality.

New Hiring Status of 2012

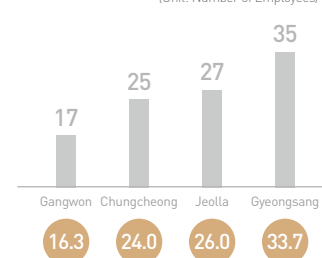
(Unit: Number of People)

Category		2010	2011	2012
Permanent	Total Hiring	-	31	13
	Female	-	6.5	2
	Local Talent	-	15	7
	Natural Sciences and Engineering Majors	-	23	10
	High School Graduates	-	1	-
Non-permanent	Temporary	17	2	6
	Interns	-	7	14

* No new hiring in 2010 following the advancement of public organizations

Current Pool of Local Talent (Out of Permanent Employees)

(Unit: Number of Employees/%)



Local Talent accounts for 50.2% of all permanent employees with 104 employees, and natural science and engineering majors account for 66.2% with 137 securing technical and human resources infrastructure for the development of mine damage technologies and the expansion into the overseas market.

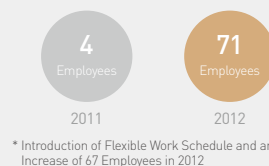
Reinforcement of Hiring Process

Mireco entrusts the hiring process to a professional hiring agency to eliminate external factors and requires a written test for new employment, performance qualification for experienced employment, and speaking test for foreign language speakers to realize an objective qualification system. In addition, external interviewers are used to secure fairness and the applicants with experience in Mireco's youth internship are exempt from document screening in the hiring process of permanent employees. Meanwhile, Mireco selected pre-decided interns in connection with specialized high schools. Mireco also requested the Korean Employment Agency for the Disabled for recommendations to fill its accountant positions for the faithful performance of the governmental policies. The corporation also converted the workers on constant standby into permanent workers after examining their job performance levels.

Creation of Compatible Culture of Work and Family

Mireco offered employees the option to take afternoons off and work on a flexible schedule for the employees traveling long distances in 2012 so that they could enjoy the free benefits of the benefits package. The corporation provides opportunities for employees to develop their potential and recharge.

Use of Flexible Work Schedule



Training “Mire Person” through the reinforcement of HRD

Mireco established an HRD roadmap to build a training system of core human resources aimed at producing results and realizing model employees to achieve its vision. Primarily, different areas of expertise for the job were identified, and 27 educational processes were designed for each expertise to train 166 employees. Education regarding the corporate vision and core values were provided to new hires to internalize the organization culture, enhance pride and loyalty for the corporation, and help them adapt to the corporate culture focused on value, relationship, and business.

Fair Evaluation of Results

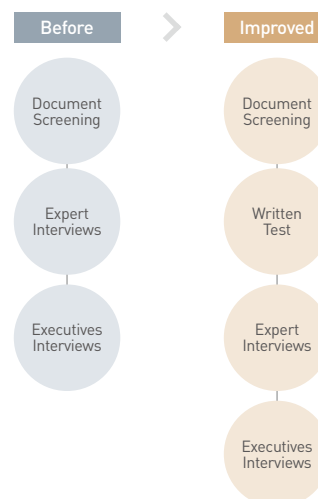
Mireco accelerated the process of evaluating individual job performance by applying the MBO (Management by Objectives) of subjects of Grades 1~2 for an objective evaluation for the systemized improvement of results and review of capabilities. The examiners and examinees contribute to the creation of results through year-round management of results and minimize the efforts in the review.

	Before (2011)	Improvement (2012)
Evaluation of Results	Grade 1: Substituted with the Department Review Grade 2: Equal 5 Indicators (Business Composure System)	Establishment of MBO Based on KPI Around-the Year Results Management Results Evaluation Based on Individual Job Performance
Capabilities Review	Multidimensional Review	Conducted on All Level 1~2 Employees (Common, Position, Leadership)
Multidimensional Review	Differential Application of Basic Wage After Added Department Review Points	Location Diagnosis according to the 360 Degrees Evaluation

Next Step

Mireco reestablished its system to offer employment to high school graduates: the corporation reformed the system of positions and recommended cross study of management, humanities and social sciences, and engineering to all liberal arts, natural sciences, and engineering majors to improve their understanding of the business and secure long term human resources. Mireco plans to increase the capabilities of new employees to realize its vision of the future.

Hiring Process Focusing on Capabilities



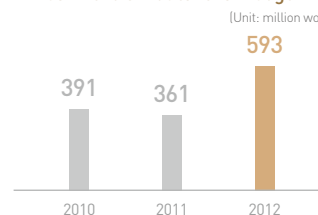
Education and Training Hours per Each Employee

(Unit: Number of People)

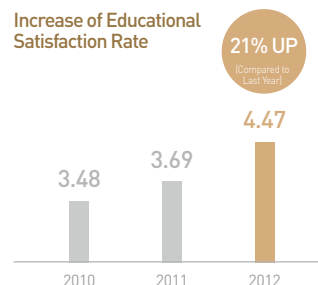
Category	2010	2011	2012
Liberal Arts	23.39	11.68	12.94
Natural Sciences and Engineering	12.07	4.78	14.41
Common Knowledge	-	0.16	-

Annual Trend of Educational Budget

(Unit: million won)



Increase of Educational Satisfaction Rate



Establishment of Sound Organizational Culture



Context and Challenge

Mireco endeavors to realize practical employment stability for temporary workers. In addition, Mireco operates an employee benefits package to satisfy the various needs of workers to realize GWP (Great Work Place) for the improvement of the business satisfaction rate for employees.

Our Progress

Employment Stability and Better Treatment of Temporary Workers

Mireco provides equal benefit packages to temporary workers as permanent workers, such as the selective welfare system and internal work welfare fund. Temporary workers can convert to permanent positions through the evaluation process; deliberation by the Human Resources Committee converted 5 temporary workers into permanent workers as of the end of 2012.

Mireco plans to convert temporary workers on constant standby to permanent workers through continuous performance evaluations of temporary workers in the future.

Education and Learning of Retiring Employees

Mireco provides opportunities to retiring employees to receive special training in special institutes (institutes of continuous education) and to conduct inspection of sites in and out of the country for them to adapt to society better and provide chances for personal enjoyment, such as courses related to fitness and hobbies, to establish a system that nurtures socialization and learning of new skills and gives recognition for their years of employment.

Maternity Leave and Reinstatement Rate

The number of employees taking a maternity leave of absence in the last 3 years (2010~2012) is 5, 1 male employee and 4 female employees, with everyone returning back to work for a reinstatement rate of 100%. Mireco voluntarily introduced a defined benefit retirement pension plan in 2007, and the company also operates defined benefit and contribution retirement pension plans together. The operation and management of the system is assigned to a separate pension operating agency contracted for each plan. The rate of employees' membership in the retirement pension plan and the national pension plan has been recorded at 100% as of 2012.

Category	2009	2010	2011	2012
Employees on Maternity Leave	1	1	4 (1 Male Employee)	1
Reinstated	1	1	3	-

* All employees on maternity leave reinstated excluding the employees on leave as of December '12 and '13

Operation of Ombudsman Channel

Mireco, through the second quarter meeting of the Labor and Management Committee, put together an Ombudsman Committee with 3 members representing the labor and management (Director of the Management Strategy Headquarters, Secretary-General of Labor Union, and Assistant Administrator of the Management Support Office) under Article 26 of the Law on the Union's Participation and Increased Cooperation and Article 22 of the Labor and Management Committee Rules. The Ombudsman Committee resolved 66 cases out of the total of 86 cases, implementing 4 items to improve productivity through increasing morale and the satisfaction rate of employees.

Labor and the management also worked together to stabilize the employment situation of temporary workers and improve the treatment of workers. This resulted in the enactment of the short term work schedule, new rules for management (3 rules), and the revision of the 6 rules related to human resources such as the personnel policies, hiring rules, and detailed bylaws of efficient business for continuous improvement of the system.

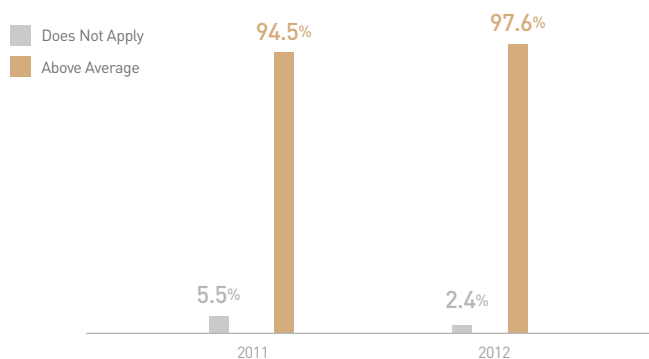
Operational Results of the Ombudsman Channel in 2012



Benefits Package System

Mireco entered an agreement with a medical agency in 2012 to provide quality medical services and nonpaid discount benefits for employee health. The company also bought an industrial insurance plan to prepare for the illness and industrial accidents of employees. Employees can choose specific items from the benefits package and enjoy the loan system for housing costs for housing stability; they can also enjoy benefits for recreational and cultural activities to improve their welfare and living conditions. Mireco awards the same kind of benefits to temporary workers as permanent workers in terms of welfare.

Annual Satisfaction Rate Survey Result of Benefits Package System



Next Step

Mireco periodically conducts a satisfaction rate survey of the benefits package for internal employees to study the welfare needs of the employees, resulting in a rise in satisfaction rate by 3.1% compared to the previous year. Mireco will continue to gather the opinions of the employees in regard to the benefits package for the rational and fair operation of the system.

Coexisting Labor and Management Relationship Organizational Culture



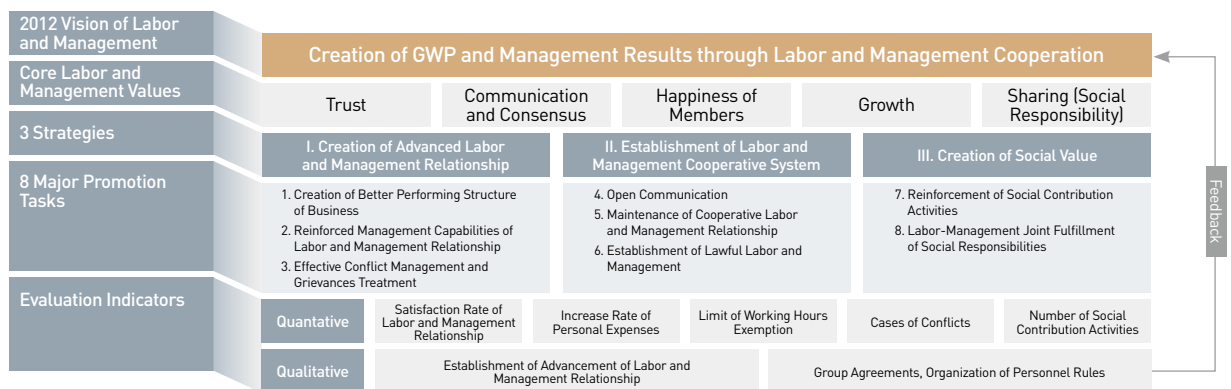
Context and Challenge

Mireco developed strategies for the advancement of the labor and management relationship in connection with its corporate vision through communication and efforts for coexistence to promote sustainable growth.

Strategic System for the Advancement of the Labor and Management Relationship

Mireco operates performance indicators and strategic tasks for the advancement of the labor and management relationship under its vision of "Creation of GWP and Management Results through Labor and Management Cooperation". Mireco also made substantial efforts by putting forth middle and long term strategic of 3 stages involving Introduction, Establishment, and Sophistication and tasks for each field of evaluation.

Strategic System for the Advancement of the Labor and Management Relationship 2012



Our Progress

Creation of Channel between Labor and Management through Dialogue and Communication

Mireco engages in a one on one dialogue in meetings of labor and management representatives and between the head of the organization and labor union to look for coexisting growth measures between the labor and management and to resolve the employees' grievances by organizing meetings between the management and labor union executives. In addition, a visit to each local branch for field meetings and discussion about on-site grievances and ways to develop the labor and management relationship helps to share the current tasks and draw solutions. Mireco also operates a CEO Blog, reflecting the management philosophies of the head of the organization and the results of communications between the employees and between the labor and management.

Labor and Management Committee



Improved Result of Labor and Management Cooperation through Two-way Communication

Mireco collects the voices of labor and management through the Labor and Management Committee and business conferences and sought for the improvement of the system to improve the working conditions. The Time Difference Commute Schedule and Taking-the-Afternoon-Off systems were introduced to support double-income families with children while the payment of insurance fees for damaged cars in the course of conducting business was conveyed to the corporation to relieve stress on employees. Pending management issues were shared company-wide to help quickly resolve the current issues while active communication between the labor and management was carried for the better treatment of the temporary workers. All of these efforts contributed to the increased satisfaction rate of employees.

Workshop on the Advancement of Labor and Management Relationship



Participation in the Enhanced Labor and Management Partnership

The labor and management of the corporation carries out various activities for the improvement of the partnership. The head of the Labor Union and executives in charge in the labor and management relationship jointly participated in the briefing session on the executive process of the labor law hosted by the Ministry of Labor to improve the relationship. They held labor and management relationship workshops to share and discuss the model labor and management relationship and to resolve differences in opinions. A vision proclamation ceremony was held to establish a new value system while a Sports Day to promote harmony between labor and management was provided as part of the various efforts to improve the partnership.

Intensified Efforts between the Labor and Management to Invigorate the Organizational Structure

Mireco operates a joint labor and management social service works team to promote distinctive social service works under 4 different themes to invigorate the organizational culture. Mireco made various efforts through Family Fun Day, which is a joint happy family program, Mireco Culture Experiences, and Hof & Hope Day. A workshop on coexisting growth with the mine damage control businesses and mining right holders was held to collect the opinions of the union members, and the participation of union members helped in the establishment of the coexisting growth model, reflecting the characteristics of the corporation.

Rate of Membership in the Union and Current Participation in the Rational Agreements.

Mireco enters into wages and group agreements annually, and the rate of membership in the union as of the end of 2012 is 99.4%. The union thoroughly studied the 80 articles accepted by the corporation out of the 121 requests made by the union for the improvement of working conditions of the union members and automatically renewed them through the labor and management agreement to further negotiate in 2013.

Minimum Period for Notice of Important Items (Group Agreement)

Mireco's subjects of group negotiation are notified to the relevant parties at least 7 days in advance, and the delay of the negotiation is notified at least 3 days in advance. Unfair disciplinary measures or the likely cases of which can call for the hosting of the Labor and Management Committee meeting within 7 days and the resignation of the members of the union is notified to the resigning employee and the union 30 days in advance. Furthermore, the resignation due to imminent management causes, closure of business, division, merger, transfer, and change of the union member's status must be notified to the union 60 days in advance.

Safety and Health

Mireco designated the head of the Management Support Office (Vice Chairperson of the Labor and Management Relationship) as the manager of safety and health under the Health law of Industrial Safety and relevant laws. In addition, in the second quarter Labor and Management meeting of 2012, employees scheduled to leave on international business trips and works received assistance for basic vaccinations and physical examination. In the 4th quarter meeting, the employees and their families became eligible to receive top-quality medical services through the treatment agreements with the medical facilities.

Next Step

Mireco understands the equal relationship between labor and management and seeks to change the awareness of the relationship and the environment, consistently improving relationship so that both parties can walk together as partners now and in the future.

Sports Day for Harmony between Labor and Management



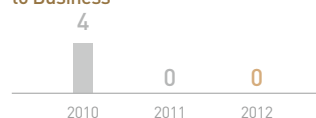
Hof & Hope Day



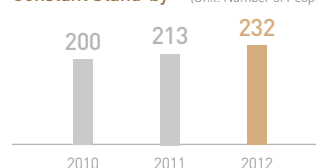
Vision I.D.E.A Workshop



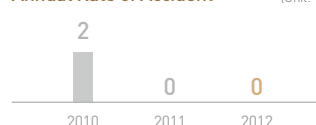
Annual Number of Accidents Related to Business



Annual Number of Workers on Constant Stand-by (Unit: Number of People)



Annual Rate of Accident (Unit: %)



APPENDIX

- 83 GRI G4 Index
- 85 UNGC Index
- 86 Third Party Verification Opinion
- 88 Results of ISO 26000 Compliance Diagnosis
- 90 Guidelines for Increased Ethical Awareness in Overseas Business
- 91 Reader Feedback Survey

GRI G4 Index

GENERAL STANDARD DISCLOSURES

General Standard Disclosure		Page	External Assurance
Strategy and Analysis			
G4-1	Provide a statement from the most senior decision-maker of the organization (such as CEO, chair, or equivalent senior position) about the relevance of sustainability to the organization and the organization's strategy for addressing sustainability.	2-3	86-87
Organizational Profile			
G4-3	Report the name of the organization	6-7	86-87
G4-4	Report the primary brands, products, and services.	6-7	86-87
G4-5	Report the location of the organization's headquarters.	6-7	86-87
G4-6	Report the number of countries where the organization operates, and names of countries where either the organization has significant operations or that are specifically relevant to the sustainability topics covered in the report.	6-7	86-87
G4-7	Report the nature of ownership and legal form.	6-7	86-87
G4-8	"Report the markets served (including geographic breakdown, sectors served, and types of customers and beneficiaries)."	6-7	86-87
G4-9	"Report the scale of the organization, including: - Total number of employees - Total number of operations - Net sales (for private sector organizations) or net revenues (for public sector organizations) - Total capitalization broken down in terms of debt and equity (for private sector organizations) - Quantity of products or services provided"	6-7	86-87
G4-10	"a. Report the total number of employees by` and gender. b. Report the total number of permanent employees by employment type and gender. c. Report the total workforce by employees and supervised workers and by gender. d. Report the total workforce by region and gender. e. Report whether a substantial portion of the organization's work is performed by workers who are legally recognized as self-employed, or by individuals other than employees or supervised workers, including employees and supervised employees of contractors. f. Report any significant variations in employment numbers (such as seasonal variations in employment in the tourism or agricultural industries)."	6, 76	86-87
G4-11	Report the percentage of total employees covered by collective bargaining agreements.	81	86-87
G4-12	Describe the organization's supply chain.	7	86-87
G4-13	"Report any significant changes during the reporting period regarding the organization's size, structure, ownership, or its supply chain, including: - Changes in the location of, or changes in, operations, including facility openings, closings, and expansions - Changes in the share capital structure and other capital formation, maintenance, and alteration operations (for private sector organizations) - Changes in the location of suppliers, the structure of the supply chain, or in relationships with suppliers, including selection and termination"	About this Report	86-87
Organizational Profile: Commitments to External Initiative			
G4-14	Report whether and how the precautionary approach or principle is addressed by the organization.	11	86-87
G4-15	List externally developed economic, environmental and social charters, principles, or other initiatives to which the organization subscribes or which it endorses.	6	86-87
G4-16	"List memberships of associations (such as industry associations) and national or international advocacy organizations in which the organization: - Holds a position on the governance body - Participates in projects or committees - Provides substantive funding beyond routine membership dues - Views membership as strategic"	6	86-87
Identified Material Aspects and Boundaries			
G4-17	"*List all entities included in the organization's consolidated financial statements or equivalent documents. *Report whether any entity included in the organization's consolidated financial statements or equivalent documents is not covered by the report."	About this Report	86-87
G4-18	"a. Explain the process for defining the report content and the Aspect Boundaries. b. Explain how the organization has implemented the Reporting Principles for Defining Report Content. "	14-15	86-87
G4-19	List all the material Aspects identified in the process for defining report content.	16-17	86-87
G4-20	For each material Aspect, report the Aspect Boundary within the organization, as follows: * Report whether the Aspect is material within the organization * If the Aspect is not material for all entities within the organization (as described in G4-17), select one of the following two approaches and report either: - The list of entities or groups of entities included in G4-17 for which the Aspect is not material or - The list of entities or groups of entities included in G4-17 for which the Aspects is material * Report any specific limitation regarding the Aspect Boundary within the organization	16-17	86-87
G4-21	For each material Aspect, report the Aspect Boundary outside the organization, as follows: - Report whether the Aspect is material outside of the organization - If the Aspect is material outside of the organization, identify the entities, groups of entities or elements for which the Aspect is material. In addition, describe the geographical location where the Aspect is material for the entities identified - Report any specific limitation regarding the Aspect Boundary outside the organization	About this Report	86-87
G4-22	Report the effect of any restatements of information provided in previous reports, and the reasons for such restatements.	About this Report	86-87
G4-23	Report significant changes from previous reporting periods in the Scope and Aspect Boundaries.	About this Report	86-87
Stakeholder Engagement			
G4-24	Provide a list of stakeholder groups engaged by the organization.	About this Report	86-87
G4-25	Report the basis for identification and selection of stakeholders with whom to engage.	15	86-87
G4-26	Report the organization's approach to stakeholder engagement, including frequency of engagement by type and by stakeholder group, and an indication of whether any of the engagement was undertaken specifically as part of the report preparation process.	14-15	86-87
G4-27	Report key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting. Report the stakeholder groups that raised each of the key topics and concerns.	12-15	86-87
Report Profile			
G4-28	Reporting period (such as fiscal or calendar year) for information provided.	About this Report	86-87
G4-29	Date of most recent previous report (if any).	About this Report	86-87
G4-30	Reporting cycle (such as annual, biennial).	About this Report	86-87
G4-31	Provide the contact point for questions regarding the report or its contents.	About this Report	86-87
Report Profile: GRI Content Index			
G4-32	a. Report the 'in accordance' option the organization has chosen. b. Report the GRI Content Index for the chosen option (see tables below). c. Report the reference to the External Assurance Report, if the report has been externally assured. GRI recommends the use of external assurance but it is not a requirement to be 'in accordance' with the Guidelines.	About this Report	86-87
Report Profile: Assurance			
G4-33	a. Report the organization's policy and current practice with regard to seeking external assurance for the report. b. If not included in the assurance report accompanying the sustainability report, report the scope and basis of any external assurance provided. c. Report the relationship between the organization and the assurance providers. d. Report whether the highest governance body or senior executives are involved in seeking assurance for the organization's sustainability report.	About this Report, 86-87	86-87
Governance			
G4-34	Report the governance structure of the organization, including committees of the highest governance body. Identify any committees responsible for decision-making on economic, environmental and social impacts.	10-11	86-87
Ethics and Integrity			
G4-56	Describe the organization's values, principles, standards and norms of behavior such as codes of conduct and codes of ethics.	90	86-87

GRI G4 Index

GENERAL STANDARD DISCLOSURES

Material Aspect	DMA and Indicators		Page	Omissions	External Assurance
Economic Performance	Category: Economic				
	Generic DMA		16–17, 53, 65		86–87
	G4-EC1	Direct economic value generated and distributed	7		
	G4-EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change	30–33		
	G4-EC3	Coverage of the organization's defined benefit plan obligations	78		86–87
	G4-EC4	Financial assistance received from government	-	Not Applicable	
Energy	Category: Environmental				
	Generic DMA		16–17, 19		86–87
	G4-EN3	Energy consumption within the organization	32		86–87
	G4-EN4	Energy consumption outside of the organization	-	Not Applicable	
	G4-EN5	Energy intensity	-	This data will be available on next report	
	G4-EN6	Reduction of energy consumption	32		
	G4-EN7	Reductions in energy requirements of products and services	32		
	Generic DMA		16–17, 19		86–87
	G4-EN11	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	-	Not Applicable	
	G4-EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas	26–31, 35		86–87
Biodiversity	G4-EN13	Habitats protected or restored	30–31		
	G4-EN14	Total number of iucn red list species and national conservation list species with habitats in areas affected by operations, by level of extinction risk	-	Not Applicable	
	Generic DMA		16–17, 19		86–87
	G4-EN15	Direct greenhouse gas (ghg) emissions (scope 1)	31		86–87
Emissions	G4-EN16	Energy indirect greenhouse gas (ghg) emissions (scope 2)	31		86–87
	G4-EN17	Other indirect greenhouse gas (ghg) emissions (scope 3)	-	This data will be available on next report	
	G4-EN18	Greenhouse gas (ghg) emissions intensity	-	This data will be available on next report	
	G4-EN19	Reduction of greenhouse gas (ghg) emissions	31		
	G4-EN20	Emissions of ozone-depleting substances (ods)	-	Not Applicable	
	G4-EN21	NOx, SOx, and other significant air emissions	-	Not Applicable	
	Generic DMA		16–17, 19		86–87
Overall	G4-EN31	Total environmental protection expenditures and investments by type	24, 26–27		86–87

Employment	Category: Social				
	Sub-Category: Labor Practice and Decent Work		Page	Omissions	External Assurance
	Generic DMA		16–17, 71		86–87
	G4-LA1	Total number and rates of new employee hires and employee turnover by age group, gender and region	76		86–87
	G4-LA2	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by significant locations of operation	79		
	G4-LA3	Return to work and retention rates after parental leave, by gender	78		

Sub-Category: Human Rights			Page	Omissions	External Assurance
Generic DMA			16–17, 71		86–87
Freedom of Association and Collective Bargaining	G4-HR4	Operations and suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and measures taken to support these rights	80–81	No measures taken for suppliers	86–87
Sub-Category: Society			Page	Omissions	External Assurance
Generic DMA			16–17, 41, 47, 71		86–87
Local Communities	G4-S01	Percentage of operations with implemented local community engagement, impact assessments, and development programs	42		86–87
	G4-S02	Operations with significant actual and potential negative impacts on local communities	34–35		
Generic DMA			16–17, 41, 47, 71		86–87
Anti-corruption	G4-S03	Total number and percentage of operations assessed for risks related to corruption and the significant risks identified	None		86–87
	G4-S04	Communication and training on anti-corruption policies and procedures	74–75, 90		86–87
	G4-S05	Confirmed incidents of corruption and actions taken	None		86–87
Generic DMA			16–17, 41, 47, 71		86–87
Compliance	G4-S08	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations	None		86–87
Sub-Category: Product Responsibility			Page	Omissions	External Assurance
Generic DMA			16–17, 71		86–87
Product and Service Labeling	G4-PR3	"Type of product and service information required by the organization's procedures for product and service information and labeling, and percentage of significant product and service categories subject to such information requirements"	Not Applicable		
	G4-PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes	None		86–87
	G4-PR5	Results of surveys measuring customer satisfaction	72		86–87
Generic DMA			16–17, 71		86–87
Customer Privacy	G4-PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data	None		86–87

UNGC INDEX

Since joining the UN Global Compact (UNGC) in June 2013, MIRECO has been in full compliance with the UNGC's 10 principles in the four areas of human rights, labor, environment and anti-corruption.

UNGC Principle		Pages
Human rights	1. Businesses should support and respect the protection of internationally proclaimed human rights; and	74–75
	2. Make sure that they are not complicit in human rights abuses.	74–75
Labor	3. Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;	80–81
	4. the elimination of all forms of forced and compulsory labor;	80–81
	5. the effective abolition of child labor; and	80–81
	6. the elimination of discrimination in respect of employment and occupation.	80–81
Environment	7. Businesses should support a precautionary approach to environmental challenges;	11, 20 ~ 33
	8. undertake initiatives to promote greater environmental responsibility; and	11, 20 ~ 33
	9. encourage the development and diffusion of environmentally friendly technologies.	11, 20 ~ 33
Anti-corruption	10. Businesses should work against corruption in all its forms, including extortion and bribery.	74 ~ 75, 90

Third Party's Assurance Report

To the Readers of Mine Reclamation Corporation Sustainability Report 2012:

Foreword

Korea Management Association Registration and Assessments (KMAR) has been requested by Mine Reclamation Corporation verify the contents of its Sustainability Report 2012 (the Report). Mine Reclamation Corporation is responsible for the collection and presentation of information included in the Report. Our responsibility is to carry out assurance engagement on specific information in the assurance scope stipulated below.

Our independence

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

Assurance scope and standard

Mine Reclamation Corporation describes its efforts and achievements of the sustainability activities in the Report. KMAR performed a type 2, moderate level of assurance using AA1000AS (2008) as an assurance standard. That is, the assurance team assessed whether inclusivity, materiality, and responsiveness were observed, and verified the followings to assess the reliability of the assertions and performances specified in the report.

Assurance of the economic section

Reviews by sampling whether the financial performance data has been extracted appropriately from Mine Reclamation Corporation's 2012 financial statements and public notification data

Assurance of the environmental and social section

Reviews by sampling whether the environmental and social information included in the Report is presented appropriately

"Appropriately presented" means that the actual data and original information are appropriately reflected in the Report with consistency and reliability. For the economic section, we based our evidence-gathering procedures on reasonable assurance. It is a higher level of assurance than that of the limited assurance in terms of characteristics and the extent of performed tasks.

The team included the confirmation of the application level of GRI G3.1 utilized as the report criteria in the scope of assurance and reviewed the information included in report process and report to confirm.

Assurance process

In order to verify the contents of the Report within an agreed scope of assurance in accordance with the assurance standard, KMAR's assurance team visited the Mine Reclamation Corporation's headquarter, and carried out an assurance engagement as follows

- Reviewed data management systems and reporting processes
- Assessed internal documents and materials
- Interviewed people in charge of disclosed activities and performances
- Interviewed people in charge of preparing the report

Conclusion

Based on the results we have obtained from material reviews, relevant department visits, and interviews, we had several discussions with Mine Reclamation Corporation on the revision of the Report. We reviewed the Report's final version in order to confirm that our recommendations for improvement and our revisions have been reflected. When reviewing the results of the assurance, the assurance team did not find any inappropriate contents related to the compliance with the principle in the Report.

Inclusivity

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

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

Materiality

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

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

Responsiveness

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

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

We also confirmed that the report by Mine Reclamation Corporation was prepared in accordance with GRI G4(Core Option).

General Standard Disclosures

We confirmed that the report conformed with the Core Option requirements of General Standard Disclosures.

Specific Standard Disclosures

We reviewed Material Aspects, DMAs and Indicators like listed below, decided through the process for defining report content by Mine Reclamation Corporation, and confirmed that the Core Option requirements of Specific Standard Disclosures were observed.

- Generic DMA of each of following material aspects
- Economic Performance: G4-EC3
- Energy: G4-EN3
- Biodiversity: G4-EN12
- Emissions: G4-EN15, G4-EN16
- Overall: G4-EN31
- Employment: G4-LA1
- Freedom of Association and Collective Bargaining: G4-HR4
- Local Communities: G4-S01
- Anti-corruption: G4-S03, G4-S04, G4-S05
- Compliance: G4-S08
- Product and Service Labeling: G4-PR4, G4-PR5
- Customer Privacy: G4-PR8

Recommendation for improvement

We hope Mine Reclamation Corporation's publication of the Report is actively used as a communication tool with stakeholders and recommend the following for improvements.

- We confirmed that Mine Reclamation Corporation developed the sustainability management driving roadmap and it is driving the action plans accordingly. We hope the Corporation can report by connecting target and performance of long term sustainability management.
- We hope the Corporation can enhance the completeness of report by expanding the report boundary to overseas sites.
- Mine Reclamation Corporation is required to improve the currently applied process for defining report content into an original process according to the circumstances and characteristics of the Corporation. In addition, we recommend the Corporation construct the process to define a report method to help stakeholders' easier understanding of the information from the context of sustainability.
- Attention should be paid to conform the defined report boundary to the one of actual report.



AA1000
Licensed Assurance Provider
000-129

August 29, 2013
CEO Ki Ho Park

K. H. Park



Results of ISO 26000 Compliance Diagnosis

Evaluation Standard

The Korea Standards Association (KSA) created ISO 26000, a checklist to assess the level of fulfilling social responsibility based on the international standards for social responsibility, as a part of the service requested by the Korean Agency for Technology and Standards (KATS) of the Ministry of Knowledge and Strategy. This report evaluated MIRECO's social responsibility management processes and achievements in seven core subjects based on the assessment checklist prepared by KSA.

Scope of Evaluation

KSA assessed processes of fulfilling social responsibility and relevant achievements by MIRECO including middle and long term strategies & execution activities, participation by shareholders, and social responsibility activities.

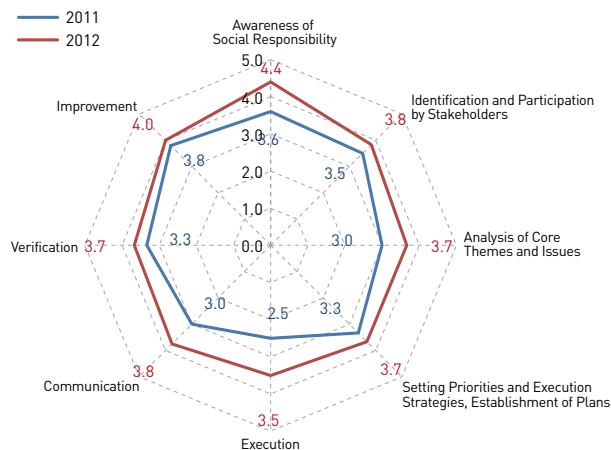
Evaluation Method

KSA has conducted the following to collect relevant documents based on the checklist of performance level of ISO 26000.

- Review of mid and long term strategies and management performance report
- Review of the interview of the personnel in charge of social responsibility management of MIRECO & reporting documents on achievement
- Identification of recent sustainability issues on mine development and mine reclamation

Evaluation Result of Each ISO 26000 Social Responsibility Process

There was progress in the evaluation of the process compared to the performance result of 2012. The establishment of sustainable strategies incorporated with the company-wide strategies and creation of the promotion roadmap for sustainable management are noteworthy. On the other hand, the employees' understanding of social responsibility, improvement, and progress evaluation of the sustainable management results, and promotion of communication on social responsibility are required for incorporation of the sustainability strategies throughout the entire organization.



Awareness of Social Responsibility	Evaluation of the Current Status of the Organization Based on the CEO's Direction
Identification and Participation by Stakeholders	Review of Concerns and Demands from Stakeholders and Establishment of Participation Strategies
Analysis of Core Themes and Issues	Drawing of a list of Issues through Review of Issues and Analysis of Internal Organizational Capabilities
Setting Priorities and Execution Strategies, Establishment of Plans	Establishment of Priorities, Plans, and Executive Plans of Issues to be Improved in Consideration of Organizational Capabilities
Execution	Periodic Monitoring of Results of Social Responsibility through Performance of Strategies and Vision, Goals, and Executive Plans
Communication	Communication with Stakeholders through Performance Results
Verification	Activating and Reporting for the Improved Credibility of Results
Improvement	Continuous Improvement through Periodic Monitoring of Results

Evaluation Result of the 7 Core Themes of ISO 26000

Organizational Governance | For the practical operation of the Sustainable Management Committee consisting of the relevant departments for mutual growth, fair society, and social contribution, it is advised to implement regular meetings and a reporting system, establish goals, and review the results.

Human Rights | Management review system of mutual investment companies was recently introduced to establish performance indicators for each mutual investment company in connection with the review results and compensation system. The inclusion of public interests (economic promotion in abandoned mine areas, performance of governmental policies) in the management review of mutual investment companies is noteworthy. It is advised to conduct a field assessment of human risks for business partners in the future.

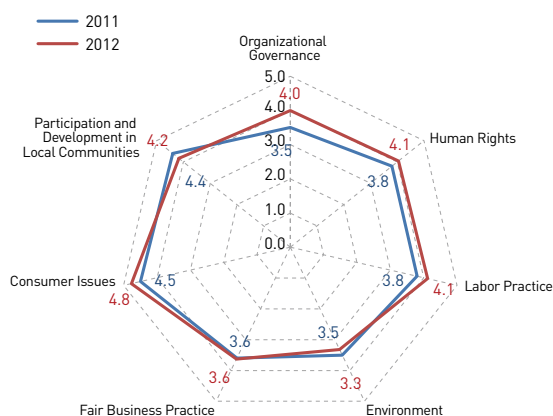
Labor Practice | Creation of job opportunities in the private sectors is achieved through the outsourcing of insignificant mine damage prevention projects, issuing contracts of investment projects, and partnerships. Labor practice shows decent performance results, overall the same as 2012, while the issue of "Health and Safety in Labor" still lags behind. The nature of businesses dealing with various harmful materials such as the mineral residue, contaminated water in shafts, and soil contaminated with heavy metals requires the management of safety as a crucial point. It is advisable to establish and manage a safety management system involving business partners.

Environment | The mine damage prevention and the environment restoration business is the purpose of Mireco and core of its social responsibility. "Responsible Mine Reclamation" scored the highest among stakeholders in the Materiality Evaluation, similarly to the result in 2012. More thorough management of the issues of "Contamination Prevention" and "Sustainable Utilization of Resources" in the field of environment will help in responding more proactively to the expectations of stakeholders to maintain sound natural environments in abandoned mine areas.

Fair Business Practice | It is noteworthy that Mireco established the "Guidelines for the Increased Awareness of Overseas Business" to prevent corruption and negative impact related to political participation during the course of active promotion of overseas projects. It is advised to strengthen the ethical management programs to apply the principles of "Preventing Corruption" and "Responsible Participation in Politics" in overseas business and also to reflect the ethical education of the employees related to the overseas projects.

Consumer Issues | The ultimate customers of Mireco are the residents of abandoned mine areas and the general public. The transparent and accurate disclosure of information on the corporation's business activities increase communication with stakeholders and accessibility to information to encourage participation by stakeholders

Participation and Development in Local Communities | Establishment of mutual investment companies in abandoned mine areas, financing of alternative industries, and assisting stabilized living of workers transferring from abandoned and reduced mines are part of the various efforts to promote and revitalize the local economies and societies of the abandoned mine areas. The corporation is advised to establish the promotion of business model for the areas and evaluation forms to check and improve the results for the effective improvement of these projects.



Organizational Governance	Activities to Integrate Existing System, Policies and Practices while Respecting Principles of Social Responsibility
Human Rights	Activities to Protect, Respect, Comply with and Realize Human Rights In the Organization and within the Influence of the Organization
Labor Practice	Policy and Practices which Impact Labor Environment for the Internal Organization and Partners
Environment	Activities to Access Comprehensively by Considering Meanings of Decisions and Activities of the Organization to Reduce Environmental Impacts of the Organization
Fair Business Practice	Activities to Focus on Ethical Behaviors on Deals between the Organization and External Organizations such as Partners, Suppliers, etc.
Consumer Issues	Activities to Protect Consumer Rights including Consumer Education, Fair & Transparent Marketing Information & Contracts, and Promotion of Sustainable Consumption
Participation and Development in Local Communities	Activities to Maximize Support and Opportunities while Recognizing and Respecting the Rights of Local Society

Final Conclusion

Mireco's evaluation of the performance level of ISO 26000 earn 276 points (238 in 2012) out of 360 in Process and 492 points (445.5 in 2012) out of 640 in Performance, totaling 768 points overall and qualifying for the SR III Stage. Mireco's prestige and social value depends on the production of results as well as the expectations and demands of the stakeholders. Mireco will hopefully earn greater trust and care from the stakeholders from the successful performance of its mine damage prevention and promotion projects in the abandoned mine areas.

August 2013
Kim Chang Ryong, President of the Korean Standards Association

Chang Ryong Kim



Korean Standards Association (KSA), a special corporation duly organized and existing under the Industrial Standardization Laws of Korea in 1962, is a knowledge service institution that supplies and expands industrial standardization, sustainable management, and KS/ISO certifications to corporations. KSA is contributing to sustainable development in our society as a National Secretary of ISO 26000, GRI Education Institution, AA1000 Verification Institution, Korean sustainability Index (KSI) Operation Agency, US CDM Operation Agency, and Greenhouse Gas Target Management System Verification Institution.

Guidelines for the Reinforcement of Ethical Awareness in Overseas Business

Mireco is a public organization seeking mine damage control and sustainable development with the intent to comply with the legal and ethical standards at the international level. These guidelines are set out to prevent domestic and international corruption, participate in society, and observe the relevant rules and international agreements.

Article 1 Compliance with the Anti-corruption Laws Related to Overseas Business

1. Employees comply with the anti-corruption laws enacted by the UN, OECD, and Korea such as the "Guidelines for International Corporations" and "Law on Prohibition of Bribery to Foreign Public Officers and Relevant Rules for Anti-corruption in International Business Transaction", as well as the domestic laws.
2. Suggestion, promise, and offering of money, valuables, or any other benefits to foreign public officers for the purpose of making unlawful profits are prohibited
3. Employee should recognize the corruption risks in the promotion of business or on business trips and honor the international ethical principles to prevent corruption.
4. In cases of offering public officers conveniences (meals, gifts or entertainment, payment of travelling costs included) related to particular business projects, employees should follow the code of conduct, the internal standards of expense spending, and calculation in a transparent manner.

Article 2 International Relations for the Responsible Participation in the Society

1. Employees should respect the public social process of the local society in conducting business and endeavors for the development of public policies that benefit general society.
2. Employees should maintain transparency in social participation activities in terms of their position and the establishment of public policies impacting the policy making of foreign governments.
3. Employees do not make unclear donations of money or valuables anywhere in the world and refrain from joining a political party.

Article 3 Promotion and Operation Rules of Ethical Overseas Business

1. All financial business transactions are written and maintained judiciously with fairness and accuracy, and the budget for the business performance cannot be used for any other purposes.
2. Employees promoting overseas business must receive education on anti-corruption related to business transactions between the public officers and responsible participation in society.
3. Cases and activities suspected of corruption must be reported to the supervisors and the Audit Office immediately. Persons reporting cannot be subject to mistreatment in any ways such as unemployment.
4. Employees in violation of the Anti-corruption Rules can be subject to disciplinary measures according to the rules of employment and reward and punishment guidelines.

Reader Feedback Survey

MIRECO would like to hear your valuable comments. Please complete the following page and send it to the address or fax number at the bottom. Your comments will be highly appreciated and reflected when implementing sustainability activities and making improvement on the report.

Q1. Which of the following groups do you belong to?

- | | | | | |
|--|---|---|--|-----------------------------------|
| <input type="checkbox"/> Clients | <input type="checkbox"/> Employees | <input type="checkbox"/> Shareholders | <input type="checkbox"/> Investors | <input type="checkbox"/> Partners |
| <input type="checkbox"/> Government & Public Officers | <input type="checkbox"/> Industrial Sector | <input type="checkbox"/> Academia | <input type="checkbox"/> Press & Media | |
| <input type="checkbox"/> Local Residents & Local Governments | <input type="checkbox"/> Civic & Social Organizations including NGO | <input type="checkbox"/> Professional Experts in Sustainability | | |
| <input type="checkbox"/> Others | | | | |

Q2. Does this report help you understand the sustainable activities of MIRECO?

- | | | | | |
|---------------------------------------|----------------------------------|----------------------------------|------------------------------------|---|
| <input type="checkbox"/> Very Helpful | <input type="checkbox"/> Helpful | <input type="checkbox"/> Neither | <input type="checkbox"/> Unhelpful | <input type="checkbox"/> Very Unhelpful |
|---------------------------------------|----------------------------------|----------------------------------|------------------------------------|---|

Q3. Which is/are the most interesting part(s) of this report? (You may check more than 1 answer)

- | | |
|---|--|
| <input type="checkbox"/> Introduction of Korea Mine Reclamation Corporation (MIRECO) | <input type="checkbox"/> Comprehensive Mine Damage Prevention Projects |
| <input type="checkbox"/> Regional Development Projects to Assist Economic Autonomy | <input type="checkbox"/> Management for Stability of Coal Energy Supply |
| <input type="checkbox"/> Development of Advanced Technology of Mine Damage Management | <input type="checkbox"/> Global Expansion of Mine Damage Management Business |
| <input type="checkbox"/> Expansion of Sustainable Infrastructure | <input type="checkbox"/> Others |

Q4. Which is/are the most satisfying part(s) of this report? (You may check more than 1 answer)

- | | |
|---|--|
| <input type="checkbox"/> Introduction of Korea Mine Reclamation Corporation (MIRECO) | <input type="checkbox"/> Comprehensive Mine Damage Prevention Projects |
| <input type="checkbox"/> Regional Development Projects to Assist Economic Autonomy | <input type="checkbox"/> Management for Stability of Coal Energy Supply |
| <input type="checkbox"/> Development of Advanced Technology of Mine Damage Management | <input type="checkbox"/> Global Expansion of Mine Damage Management Business |
| <input type="checkbox"/> Expansion of Sustainable Infrastructure | <input type="checkbox"/> Others |

Q5. How useful was the information contained in this report?

	Very useful	Useful	Neither	Unuseful	Very unuseful
Introduction of Korea Mine Reclamation Corporation (MIRECO)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comprehensive Mine Damage Prevention Projects	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Regional Development Projects to Assist Economic Autonomy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Management for Stability of Coal Energy Supply	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Development of Advanced Technology of Mine Damage Management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Global Expansion of Mine Damage Management Business	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Expansion of Sustainable Infrastructure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q6. How useful was the information contained in this report?

	Strongly Agree	Agree	Neither	Disagree	Strongly Disagree
The contents are clear and easy to understand.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The contents are well organized.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The contents provide useful information on major issues.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Easy to searching for desired information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The contents are credible.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The design is good and helps understand of the contents better.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q7. Please write your comments about this Sustainability Report.

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