

# Harmonizing Human Beings with Nature LH Sustainability Report 2018











# **Report Overview**

Korea Land and Housing Corporation (LH) publishes this Sustainability Report to share and communicate with our stakeholders the economic, environmental and social progress that LH has achieved through our sustainability initiatives. In this eighth Sustainability Report, we align our sustainability strategies with the matters related to our business to make it easier to understand how the stakeholders' areas of interest are reflected in our sustainability practices.

#### **Reporting Principles & Assurance**

This report adopts the Core option of the Global Reporting Initiative (GRI) Standards. It was verified by an independent agency to ensure its reliability and accuracy. Details of our compliance with the guidelines are provided in pages 74 and 75.

#### **Reporting Period, Scope and Boundary**

This report was prepared based on the sustainability data of the headquarters and the regional headquarters from January 1 to December 31, 2017. Three-year quantitative performance data is provided to illustrate LH's business progress, and certain projects from 2018 are included to support data on major issues.

#### Additional Information about the Report

More detailed information can be found on our website. Please refer to the contact information for any questions on LH's sustainability projects, or if you have any comments regarding this report.









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### **CEO Message**



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#### **CEO Message**

#### Dear Esteemed Stakeholders.

Social value is becoming a key topic in our society these days. Social value is not only the core philosophy of the government, but also the private sector pursues social values as part of sustainability management strategies.

At LH, we will strive to fulfill our highest priority of 'Quality of Life Improvement' to implement missions of 'Residential stability' and 'National equalized development'. In addition to our economic responsibilities, we aim to become a sustainable company with our social and environmental responsibilities.

As a member of the UN Global Compact, LH supports the Global Compact's ten principles including human rights, labor, environment and anti-corruption principles. We would like to report our fulfillment for the principles in this eighth Sustainability Report.

# First, we lightened the people of their worries about their house.

We are expanding supply of rental housing including Happy Housing, and providing customized housing welfare services such as Deposit-based lease housings and Housing benefit, contributing to residential stability. Based on residential platform of 1 million rental housings stock, we aim to provide a permanent residential service that brings home and happiness together through various living services such as childcare.

#### Second, we created cities where people want to live.

We are participating 32 of the 68 urban regeneration new deal projects in the whole country to lead regeneration of depressed cites. We contribute to creating a sustainable urban environment by building Smart City as the platform of the 4th Industrial Revolution era and realizing Energy independent city through introduction of renewable energy such as photovoltaic distribution in public rental housing complexes.

#### Third, we led realization of social value.

LH completed the changing 1,263 non-regular employees to regular employees, the highest level in the public sector, to meet the government's Good job policy. We provided KRW 12 trillion of financial investment to contribute to job creation and national economic revitalization. We have grown together with SMEs through party A and B relationship innovation, technology sharing, win-win fund, and purchasing social economic goods.

#### Fourth, we prepared a solid future.

We have transformed into a company with a solid financial structure through various financial techniques, business diversification efforts, and successful implementation of comprehensive sales measures. We fulfilled our fundamental social responsibilities as a permanent company, not as a burden to the people, but as a lasting company, such as paying KRW 1 trillion in corporate tax (including local tax) and paying KRW 550 billion in government dividends.

In addition, future businesses are still in progress such as exporting Korean Smart City using our New Town construction know-how and preparing for reconstruction of old rental housings.

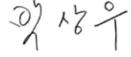
We believe 2017 was special year for LH. We achieved the highest business performance to strengthen our stable financial base for sustainability management. The role and responsibilities of LH have been further expanded by participating approximately 40 out of 100 new government projects such as Housing welfare roadmap and Urban regeneration new deal.

We would like to sincerely express our greatest gratitude to our stakeholders. Our achievements could not have been possible without your enduring support along the way.

LH will deliver our performances and efforts for sustainable business based on our vision of 'Make People's Lives Better Through Sustainable Value Creation'. We ask for your continued interest and support.

#### Thank you.

June 2018 Park Sang-Woo CEO of Korea Land and Housing Corporation



# 2017 Highlights



#### **One Million Units** of Rental Housing

LH is leading public housing welfare by having built one million units of rental housing. We constructed Korea's first rental apartments (Gaebong-dong) in 1971 and have achieved the construction of one million rental houses. Through this achievement, LH has provided KRW 47 trillion in housing benefits to the public. Based on these one million units of rental housing, we will open a new chapter in housing welfare services as LH Service Platform.







#### 'Housing Welfare 119' - LH, Housing Safety Valve for Pohang earthquake **Victims**

The value of the housing safety net LH provides was confirmed when the city of Pohang suffered from an earthquake last year. LH provided warm houses for 332 families affected by the 5.4 magnitude quake.



#### **Government Project Partner, LH**

There are 40 government projects that will be undertaken by LH. LH will supply 750,000 of the one million housing units based on the Housing Welfare Roadmap established by the Ministry of Land, Infrastructure, and Transport. We are also actively participating in various initiatives by the new government, such as the Urban Regeneration New Deal and Smart City projects.



#### 아주경제

2017년 12월 4일 월요일 013면 부동산

# 나! '주거복지로드맵' 역할

공공임대주택 65만호·공공지원주택 20만호 상당부분 담당 노하우 자원 가진 국가 공기업으로서 정부정책 이행에 최선

한국토지주택공사(LH)가 정부가 추 진하는 주거복지로드맵 선봉으로 나선 다. LH는 주거복지와 도시재생, 스마트시



LH 관계자는 "내부적으로 택지 공급 을 추진했다가 사업성 부족과 정책 변화 등의 이유로 보류했던 사업지가 전국적 으로 100곳 정도 된다"며 "이들 지역을 중심으로 도시재생 사업지와 연계성 등 을 종합적으로 검토해 사업성 검토를 추

정부는 이들 공공주택지구에 스마트



#### **Establishing a Culture of Fair Trade** through Relationship **Innovation**

documents for submission.

In September of 2017, LH proclaimed the Guidelines for Relationship Innovation to minimize fair trade conflicts that may arise, both inside and outside the organization. LH is leading a culture of fair trade by eliminating the terms 'Party A' and 'Party B' in all documents, paying just compensation, amending unfair terms, and simplifying



#### **Highest Performance** in Job Creation

LH has hired the largest number of employees ever. LH established the LH Good Job Plan to promote job creation. As a result, we changed all of our non-regualr employees to regular employees (1,263), the first large-scale change of its kind among public corporations, and hired new employees (523), senior employees (988), and women after career breaks (219). We won the prime minister's prize at the Public Employment Contest.







#### **Korean Smart City Export**

LH is opening the era of Smart City overseas exports as a leader of the domestic Smart City business. LH has been exporting the Korean-style Smart City to Bolivia and India, after starting with Abdullah New City in Kuwait. We anticipate that this will serve as a new growth engine for LH and other domestic companies.

### Introduction of LH

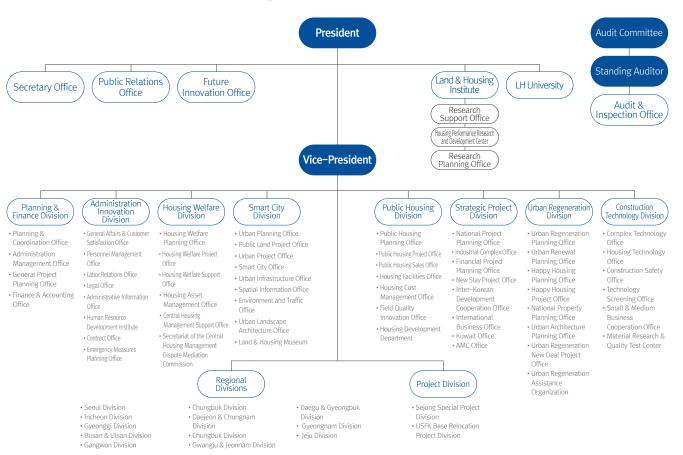
#### Introduction of LH

Korea Land and Housing Corporation (LH) was established to improve people's housing conditions and the efficiency of land development. We support the country's economic growth by managing the acquisition, development, reservation, and supply of land, as well as undertaking urban development and building, supplying and managing housing units.

#### (As of December 2017)

Organization	Korea Land and Housing Corporation	Total asset	KRW 173 trillion
Established	Oct 1. 2009	Capital	KRW 29 trillion
Headquarters	19, Chungui-ro, Jinju-si, Gyeongsangnam-do, South Korea	Sales	KRW 23 trillion
CEO	Park Sang-Woo	Employees	8,121 people

#### Organization

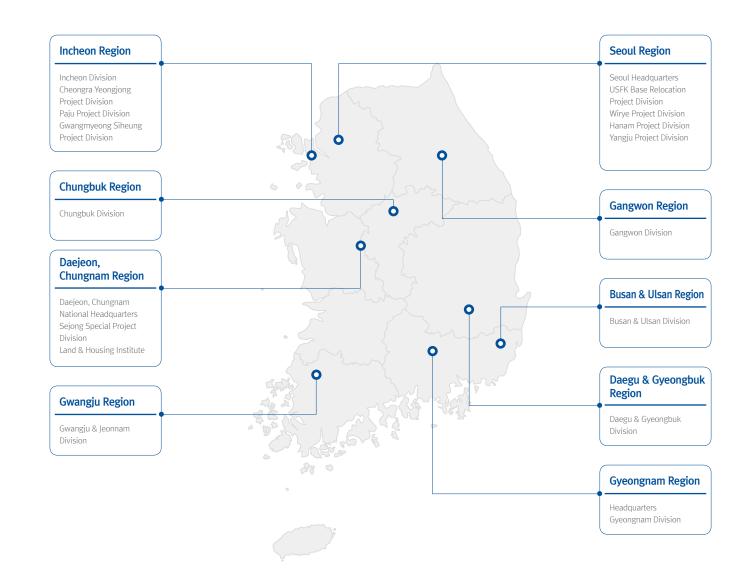


#### LH Network

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Introduction of LH

LH's organization consists of 8 divisions, 1 research institute, 43 offices, 1 university, 12 regional divisions and 2 independent divisions.





# Introduction of LH's Business

#### LH's Business

LH has five major businesses under each POC.



#### City Development

- City (New Town) and land development
- Public housing district (including private partnership) development
- Smart City
- Limited Development District maintenance and private park development



Smart City Division



#### **Urban Regeneration**

- Urban Regeneration New Deal
- Redevelopment of housing / Reconstruction of housing / Improvement of residential environments / Refinement of urban environments
- Empty house and small–scale housing environment improvement
- Renewal of public buildings / Long-neglected building environment improvement
- State-owned land consignment development (Uiwang Regal Town, etc.)
- Regeneration of old industrial complexes / Port connection

#### POC

Urban Regeneration Division



#### **Regionally Balanced Growth**

- Administrative City construction / Inno-cities / Free Economic Zones
- Industry / Logistics / Research
- Urban High-Tech Industrial Complexes / Specialized Local Industrial Complexes
- Overseas projects/Inter-Korean Cooperative Development

#### POC

Strategic Project Division



#### **Public Housing**

- Public Lot-sold Housing (national rental housing / permanent rental housing / happy rental housing)
- Public Rental Housings
- National Project (housing welfare roadmap)
- Demand-based new business



#### Housing Welfare

- Purchased/Deposit-based Lease Housings, Purchased Remodeling, Buy-to-Let Housing
- Rental operation, Housing Benefit, Repair Maintenance benefit
- Support for apartment management



#### Other

- Land Information Technology
- Overseas Consulting
- Urban Regeneration Support Center
- Building Performance Certification

#### POC

Public Housing Division (\*Happy house is managed by the Urban Regeneration Division)

#### OC

Housing Welfare Division

#### OC

Smart City Division / Strategic Project Division / Urban Regeneration Division / Construction Technology Division

#### 11 Introduction of LH's Business

#### **Total Business Volume**

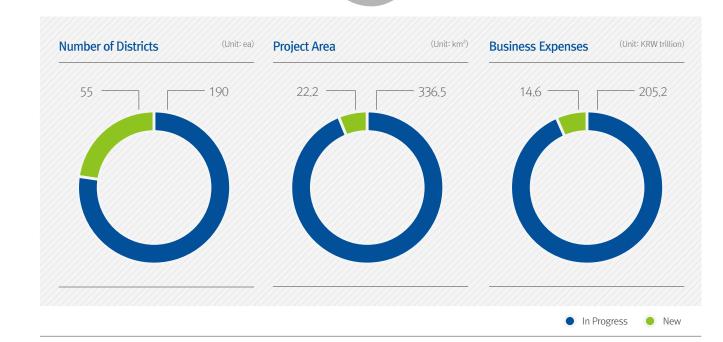
As of the end of 2017, LH has executed projects in a total of 245 districts, spanning approximately 0.11 billion pyeong. 190 districts are in the beginning stages of project preparation, such as land compensation, and 55 are in preparation for projects.

(As of the end of 2017, units: ea, km², KRW trillion)

Project Type		Total Pro	oject Volume			Proceeding			New
	Number of Districts	Area	Business Expenses	Number of Districts	Area	Business Expenses	Number of Districts	Area	Business Expenses
Public Housing	6	3.8	5.0	0	0	0	6	3.8	5.0
Urban Development	14	15.3	10.0	12	14.7	9.6	2	0.6	0.4
Promotion of Private Leasing	9	3.7	3.7	1	0.1	0.1	8	3.6	3.6
Small Houses <sup>1)</sup>	100	1.7	4.2	78	1.5	3.7	22	0.2	0.5
New Town / Residential Land	34	103.7	82.9	33	103.0	82.8	1	0.7	0.2
Bogeumjari/ National Rental Housing	34	53.7	56.3	33	51.9	54.8	1	1.9	1.6
City of Sejong	4	85.4	20.6	4	85.4	20.6	0	0.0	0.0
Industrial Logistics	18	48.0	9.7	12	44.1	8.8	6	3.9	0.9
Free Economic Zone	5	36.6	15.7	3	33.5	14.4	2	3.2	1.3
Regional Development	2	0.7	0.4	1	0.4	0.3	1	0.2	0.1
Urban Regeneration	17	1.9	6.3	12	1.7	5.5	5	0.2	0.8
Other Projects <sup>2)</sup>	2	4.1	4.8	1	0.2	4.6	1	4.0	0.2

<sup>1)</sup> Small Houses: Includes Happiness Village Zone, Happy Housing, and residential areas

<sup>2)</sup> Other Projects: In progress – US military bases / New – Gaeseong Industrial Complex 2



Introduction of LH's Business

#### Introduction of LH's Business

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# **City Development Business**



Seongnam PanGyo New Town



Hwaseong Dongtan New Tox

#### New Town Development

The concept of a "new town" designed to meet modern urban functions started with the construction of "New Communities" in the UK, which were designed to solve urban problems related to the industrial revolution. Modern new town development started in Korea in the 1960s. It has pursued two policy goals: the development of land and regions, and solving the problems of big cities. LH has completed the development of 8 new towns, while 9 new towns are under development.

#### Land Development

In the 1970s, land and housing demand surged due to industrial development and the concentration of the population in urban cities. To overcome the limitations of the previous land readjustment project scheme, the Housing Site Development Promotion Act was enacted to provide a rapid land supply. Under the Act, LH was able to introduce land development projects that contributed to the stabilization of the housing market.

#### **(Land Development Project)**

#### Bogeumjari Housing National Rental Housing

- In progress: 15 districts, 21,103,000m², 122,160 units
- Completion of construction: 5 districts, 3,022,000m², 17,545 units



- In progress: 10 districts, 2,586,000m<sup>2</sup>, 18,839 units
- Completion of construction: 13 districts, 5,386,000m², 35,350 units



**Land Development** 

- cts, In progress: 23 districts, 9 25.016,000m², 161.398 units
- Completion of construction: 38 districts, 43,990,000m², 239,183 units

#### **Urban Development**

LH builds up urban areas to provide housing, commercial and industrial units, distribution, IT, ecological units, culture, public health, welfare, and other services. LH proposes planned urban development where it is needed to build a pleasant urban environment and enhance public welfare. LH has completed three project districts with an area of 897,000 m² and is in the process of developing 14 project districts with an area of 18,273,452m² and a total of 91,454 units.

Introduction of LH's Business

# **Urban Regeneration Business**



Urban Regeneration Project in Dongnam-gu Office, Cheonan



Station area development in Gajwa-dong, Seoul

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#### Introduction of LH's Business

#### Urban Regeneration New Deal

The urban innovation project is one of core election pledges of the new government to innovate urban space and create jobs by regional initiative in response to the urban decline, which is a national problem. The project sites are selected by local initiatives rather than central initiatives. LH participates in the project through public agency proposal and local government collaboration.

#### 〈Types of Urban Regeneration New Deal Business〉

Classification	Save Our Town	Housing support type	General neighborhood type	City center type	Economy- based type
Evaluation subject	Municipal governments			Central (Ministry of Land, Infrastructure and Transport)	
Target area	Small-scale low- rise residential area	Low-rise residential area	Mixed land use area of local businesses and residential area	Commercial, start- up, historical tourism, cultural arts, etc.	Station area, industrial area, harbor, etc.
Characteristics	Small-scale residential	Residential	Semi-residential	Commercial	Industrial
Area scale	50,000 m <sup>2</sup> or less	50,000 ~ 100,000 m <sup>2</sup>	100,000 ~ 150,000 m <sup>2</sup>	200,000 m <sup>2</sup>	500,000 m <sup>2</sup>
Government support	KRW 5 billion	KRW 10 billion	KRW 10 billion	KRW 15 billion	KRW 25 billion

#### Urban Renewal

LH improves poor housing areas and deteriorated housing units to restore urban function and improve the quality of the urban residential environment.

#### (Types of Urban Renewal Business)



Introduction of LH's Business

# **Regionally Balanced Growth Business**



Multi-Functional Administration City



liniu Innovation City

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#### Introduction of LH's Business

#### Administration City Development

Step	Period	Function
Step 1	2007- 2015	Central Administration/ International Exchange/ University
Step 2	2016- 2020	Self-sufficient function such as medical care, welfare, knowledge
Step 3	2021- 2030	Compensation of urban functions such as housing and infrastructure

#### Multi-Functional Administration City Development

LH has implemented multi-functional administration city project to transfer central administrative agencies in the metropolitan area. By 2017, 55 agencies were transfered in the first step of the project. We are building an interactive smart city model according to Smart city pilot project by the Government.

<ul><li>Location:</li></ul>	Daepyung-dong, Hansol Dong and Yeongi-myeon in Sejong Metropolitan Autonomous City
Area:	72.9km² (22.05 million pyeong)
<ul><li>Expenses:</li></ul>	KRW 22.5 trillion [LH: KRW 14 trillion (excluding building construction), Government: KRW 8.5
	trillion]
<ul> <li>Population:</li> </ul>	500,000 (200,000 households)
<ul> <li>Project period:</li> </ul>	2005. 5. 2024 ~ 2030 12. 31 (26 years)

#### Inno-cities Project

10 Inno-cities will be developed to reduce the gap between local cities and accommodate public institutions that are transferred to provinces. 9 Inno-cities projects were completed by 2017.

#### Regional Development Project

This project aims to develop regional growth potential, to promote investment, to revitalize local economy and to contribute to balanced development of the country. LH is participating customized regional development projects mutual growth between local cities through agreement with 47 local government by 2017.

#### Free Economic Zone Project

This project is a development project in selected Free Economic Zone to promote foreign investments and technologies through various infrastructure, tax and administrative incentives. As of 2017, LH takes part in 5 zones including Cheongna (Incheon), and Yeongjong.

#### US Military Base Project

This project is a donation and transfer project for which LH constructs some facilities of the US Military Base and receives construction costs in accordance with a new US Military Base plan in Pyungtaek for the American soldiers.to transfer the Yongsan Army Garrison Division and the Eighth United States Army.

# Inter-Korean Development Project / Overseas New Town Development Project Gaeseong Industrial Complex Project

This project aims to build an industrial complex, supported by the inter-Korean cooperation fund, to establish production base of South Korean companies and to realize inter-Korean economic cooperation and economic community.

#### Overseas New Town Development Project

LH are promoting the new city project in Abdullah, Kuwait, aiming to export world-class smart new cities

- District Name: South Saad Ai-Abdullah City(SSAC)
- Location: 30 km west of Kuwait city center
- Business scale: A=64.5km² (19.5 million pyeong) / 25,000~40,000 housing units (Houses for local residents)
- Business expenses: Estimated \$ 4 billion (Excluding construction costs, approximately 4.4 trillion won)

# **Public Housing Business**



Bogeumjari A5 block in Gangnam-gu



Modular housing in Doonjeon, Cheonan

#### Supply target 35% 15% **Newlyweds** People who live in a General A person who relevant residential lives in a relevant construction area residential construction area 20% First-Time Buyers People who intend to purchase housing 15% 10% Recommended Multi-Child Families Buyers People who intend to 3 children purchase housing and are recommended by certain organizations such as a person of disabled **Caregivers for Elderly** People who have been supporting their elderly parents, aged 65 and over, for more than 3

years

#### **Public Housing**

To achieve the public policy goal of supporting the stable residence of low-income nonhomeowners, LH has supplied various forms of public housing, including national rental housing, public rental housing, and bogeumjari housing, starting from permanent rental housing, which it has supplied since 1989. The government has been focused on housing supply for low-income non-homeowners, and introduced deposit-based lease housing for newlyweds in 2008. We are supplying housing in response to demand at different stages in the life cycle, such as for young people, newlyweds, and senior citizens. We have supplied a total of 2.64 million units of public housing, or housing for 15 percent of all Korean households, including 1.19 million public lot-sold housings and 1.45 million public rental housings, to contribute to the housing stability of Koreans.

#### Public Lot-Sold Housing

LH supports non-homeowners who meet our income and asset criteria in their efforts to achieve home ownership. Those who meet the criteria will pay the purchase price of a house and acquire ownership of the house.

#### Public Rental Housing

LH supplies low-cost, stable public rental housing for non-homeowners based on tenants' income level.

#### (Public Rental Housing)

5-Year Rental Housing

Permanent

Rental



Rental housing leased for the mandatory rental period (5 years), which is then converted into rental housing for sale



mandatory rental period (10 years), which is then converted into rental housing for sale

#### Installment-Paid Rental Housing

Rental housings for which the housing price is paid in installments Rental housing leased for the by the tenant, and will be sold to the tenant after the mandatory

rental period is terminated Long-Term Deposit Lease at Lower Rates

Housing

basic welfare support

Rental housing to secure residential stability for beneficiaries of national

fund support

Housing

Rental housing to secure residential stability for low-income nonhomeowners, through finance or Rental housing supplied through

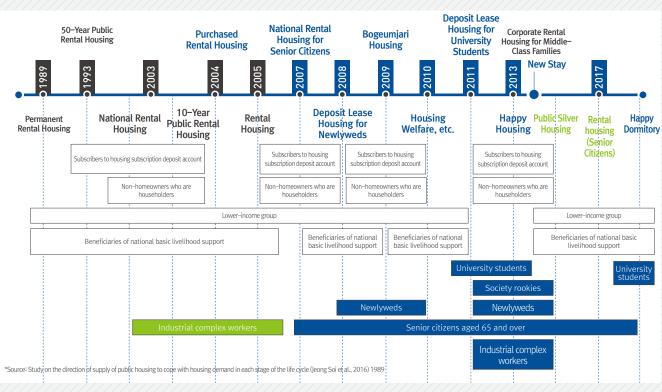
than Private Housing

Introduction of LH's Business

# **Housing Welfare Business**



Managed Stock of more than One Million Rental Housing Units and Held Housing Welfare Vision Ceremony



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#### Introduction of LH's Business

#### Happy Housing

The Happy Housing units are public rental houses built near workplaces, schools, and places with convenient access to public transport, aimed mainly at university students, newlyweds, and young people entering the work force. They help reduce housing and social costs for young people who have been neglected by housing welfare programs. By shifting the focus of housing welfare from supplier–centered housing to demand–centered housing, LH intends to reduce commuting time and traffic congestion, lower the cost of housing, increase industrial activity, and create new urban spaces by developing the Happy Housing areas as regional hubs for economic, cultural, and public activities.

#### ⟨Status of Happy Housing Construction⟩



#### **Rental Housing**

This refers to housing provided by the government for those who cannot meet their basic housing needs. LH provides various types of rental housing based on the income of tenants. We promote a housing safety net for underprivileged families to fulfill our commitment to providing comprehensive housing welfare services.

#### (Types of Rental Housing Business)

(Types of Rental Housing Business)
Description
LH purchases existing deposit housing and re-rents these housing properties to the lowest-income families in the city so that they can live on their current income.
LH purchases rental housing units from housing reconstruction projects according to buyer designation by the Ministry of Land, Infrastructure and Transport, and re–rents these housing units as rental housing.
LH signs deposit-based contracts for existing housing units and re-rents this housing to the lowest-income families in the city so that they can live on their current income.
y LH purchases rental housing using national housing funds and re-rents these housing units to Adolescent Heads of Family and families who have been victims of traffic accidents or other situations, while promoting residential stability for the children and adolescents of vulnerable families.
LH signs deposit contracts for existing housing units, and re–rents these housing units to newlyweds so that they can enjoy a comfortable quality of life.
LH leases purchased rental housing, deposit-based housing, or national rental housing to residents in deteriorated cell-type housing & makeshift houses, as well as to victims of crime, so that they can establish a foundation for self-sufficiency.
s In order to provide residential stability for residents who are suffering from long-term insecure residential status due to the default of their rental housing, LH provides legal consultation and residence support for evicted tenants.



# FOR OUR SUSTAINABLE FUTURE

LH's Sustainability Management	
Economic Value Creation	
Social Value Creation	
Environmental Value Creation	;
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# LH's Sustainability Management

#### **LH Mission and Vision**

To cope with the changing domestic and foreign business environment, such as the business paradigm shift for disaster prevention measures outlined by the government, and to successfully support government projects, under the vision of "A Better Place to Live and Happy Housing with LH," we develop our value and strategy system to include our management goals every year. We are sharing and practicing values such as "Satisfaction of People," "Creative Innovation," "Win–Win Partnerships," and "Empathy & Communication" to reach our purpose of realizing LH's vision.

# **Soaring High 2030**

Soaring High through Company-Wide Innovation

Mission	Improve people	Improve people's quality of life and boost the economy through better housing conditions and land development			
Vision	Al	A Better Place to Live and Happy Housing with LH			
	_	_			
Core Values			200	(2° C)	
	Satisfaction of People	Creative Innovation	Win-Win Partnership	Empathy & Communication	
Company-Wide Management Goals	Housing welfare for	Urban & Local Development and Management	Urban & Local Development and Management	Satisfaction & Ethical Practice	
	3.3 million households	<b>300</b> km²	KRW 35 trillion (LH Debt Clock 100 to 65)	Highest Level	
Strategic Priorities	Provide One-Stop Housing Service for the Happiness of People	Create Value through Convergence in Land Development	Create Sustainable LH Management System	Enhance a Credible Customer- Oriented Service	
Strategic Tasks	Provide demand-based public housing Enhance housing welfare delivery system Support advanced housing service Strengthen apartment management and increase value of buildings Upgrade and continuously expand urban regeneration projects	Develop demand-based cities     Create foundation for national economic growth     Lead regionally balanced and winwin growth     Develop overseas projects, strategically carry forward inter- Korean projects and land bank     Advance real estate financing and fully utilize spatial information industry	Complete a director-led autonomic innovation system Establish performance-oriented responsible management system Reduce debt and enhance financial risk management Improve business structure that produces virtuous circle Create foundation of Future Planning	Increase customer satisfaction by improving public service quality Become a credible, transparent organization Raise public responsibility by creating jobs and social contribution Promote mutual growth to create winwin industrial ecosystem Strengthen local relations	

Corporate Mission

Strategic Tasks

TBL

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LH's Sustainability Management

#### LH Sustainability Management Mission & Vision

People-Centered

Culture

• Create a good working

· Improve employees

• Develop an ethical

management system

of respect for human

Establish a culture

rights

and transparent

environment

competency

Management for

Better Quality of Life

commitment to shared

Increase customer

• Enhance customer-

 Establish strategic social responsibility

programs

Society

oriented management

Strengthen

growth

satisfaction

**Green Value Creation** 

• Build green settlement

• Proactively respond to

Environment

climate change

· Implement green

management

· Develop green

technologies

svstem

With its incorporation in October 2009, LH set standards and procedures for ethical practices, customer satisfaction, quality control, environmental management, and risk management based on our "Sustainable Management Guidelines" and implemented them as a foundation for sustainable growth. In addition, we established our sustainable management value system to achieve our vision for sustainability management of "Build Trust through Responsible Value Creation" and realize the company—wide vision and mission. LH promises not only to strengthen business competitiveness but also to take the lead in social responsibility and environmental protection as a public corporation for the people.

**Strategic Tasks** 

Improve people's quality of life and boost the economy through better housing conditions and land development

A Better Place to Live and Happy Housing with LH

Mission for Sustainable Management

Make People's Lives Better through Sustainable Value Creation

Strategic Priority

Strategic Priority

**Growth Driver** 

• Develop growth drivers

housing welfare service

• Ensure transparency in

corporate governance

Economy

• Enhance one-stop

• Financial stability

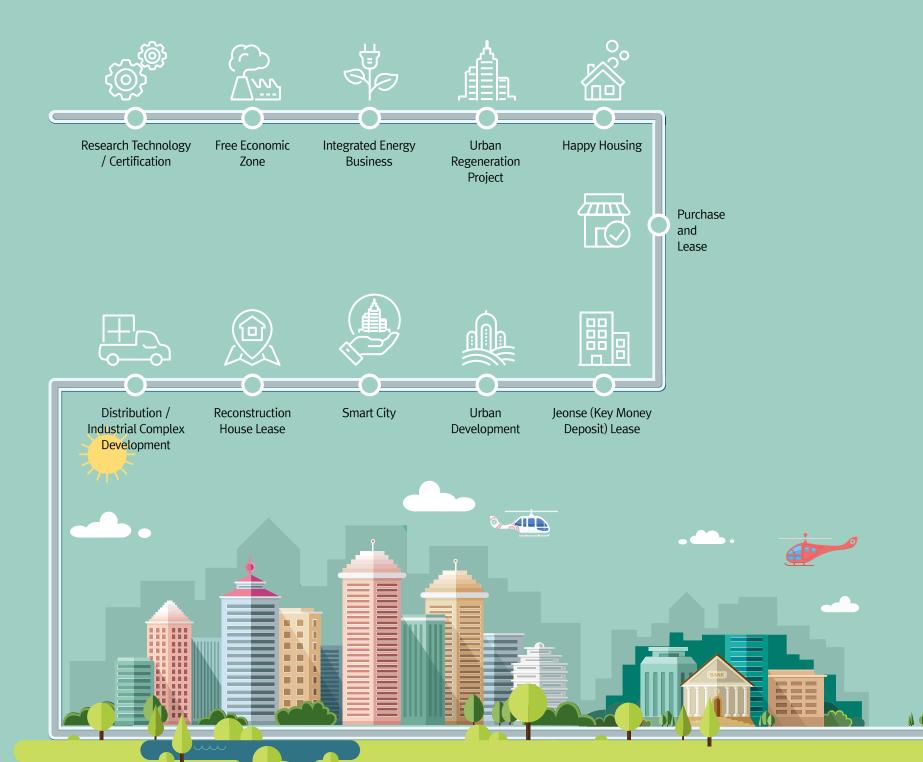
Improve business

efficiency

Mutual Growth with Stakeholders

LH was always there during times of economic growth and historic milestones in Korea. We have contributed in residential stabilization by building public houses and new towns, created economic value by adequate land development and provision, leading national economic growth by taking initiative of expanding Social Overhead Capital (SOC). We are sharing the economic value with our many stakeholders.

#### **(LH Business Model)**



LH strives to implement 17 Sustainable Developm Goals (SDGs) through its core business activities. LH strives to implement 17 Sustainable Development







Value Distribution to LH Stakeholders

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LH created economic value of approximately KRW 23.5 trillion in 2017 through its work. We distributed the value to shareholders, governments, employees, local communities and suppliers, contributing to the economic cycle.



#### (Specific Status of LH Stakeholder Value Distribution)

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Classification	Items	Performance	Unit	2017 Performance		
Economic Value Created	Sales	Land business, housing business, housing welfare, subsidiary business	KRW 100 million	235,594		
Economic Value Distributed	Shareholder	Dividends	KRW 100 million	5,521		
Government		Corporate	KRW 100 million	5,599		
	Employees	Wage and Benefits	KRW 100 million	4,963		
	Local communities	Local Takes and Social Contribution	KRW 100 million	5,422		
	Suppliers	Construction Cost	KRW 100 million	83,585		





# **Social Value Creation**

#### Social Value Creation through **Social Contribution**

LH promotes social contribution tailored to different life stages: Children, Teenagers, Adults and Senior Citizens. In 2017, a total of 24,318 people participated in LH's social contribution program.

#### Children

# **6,238** people

Provides free meal service/cultural

program for children public rental

housing complex (208 complexes)

789 people

Runs local childcare center within unused space in public rental housing complex (36 centers)

236 people

30 people

Manage mentoring programs on education and emotional communication for rental housing residents' children (18 universities)

Support for operation charges and medical expense of lower-income children(KRW 50 million)

#### Teenagers

430 people

Yearly subsidizes total KRW 450 million (1 million per person)

#### Adults

40 people

750 people

83 people

organizes weddings and honeymoons for low-income couples (20 couples)

Operates citizen's vegetable gardens on unsold land in project district (2 places)

Provides start-up fund and education to young social venture startups (32 teams, KRW 360 million)

#### **Senior Citizens**

70 people Provides cold protection and windproof construction (KRW 190 million)

# 8,730 people

Supports kimchi, briquettes and heating oil expenses (Kimchi: 80,000kg, briquettes: 140,000 ea)

e food truck 7,000 people

Supports meals to senior citizens who live alone in remote areas (24 times)











**Job Creation** 

Social Value Creation through

LH is taking the lead in expanding jobs, taking 'Job Creation' as a key management issue and a focus of value judgment. We have fulfilled our social responsibilities by creating jobs in our worksites and in private sector.



#### Large-scale change a temporary position to a permanent position

Change 1,263 short-term employees to permanent position



#### Achieved the largest new employee recruitment

531 new employees



Hired 30 contract employees based on Work Hour Option System Hired 352 employees based on government reinforcement and substitute employment system



### Job creation through core LH



Public investment: 17.7 million Housing Welfare: 8.2 million

#### Supporting job creation through cooperation, support and



Support private long-term lease housing construction Cultivate youth social venture Introduce LH Friends Market and points

# Job Creation based on Win-Win



Support for suppliers to hire 3,400 people Reduced human recruitment costs (KRW 870 million)

### Support Activation of Start-up



25 in-house idea bank Support for Social Enterprise

# Environmental Value Creation

LH strives to implement 17 Sustainable Development Goals (SDGs) through its core business activities.









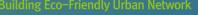


Green Management System	Green Corporate Activities		
Purchase of eco-friendly products	Energy consumption Greenhouse gas emission		
KRW 279 billion	<b>424</b> <sub>TJ</sub>	<b>21,207</b> tCO <sub>2</sub> e	

#### **Preparing for Climate Change**







Green City	Green Industrial Foundation	Green Transportation System		
pplication of LID Collective generation of echnology in cities energy		Smart City construction	Bicycle Road	
7 cities	233,490 NWh	Completed: 39 projects	Happy City: 198 km	
	Increase: <b>288,355</b> Gcal	In Progress: 26 projects	Dongtan (2) New City: 355 km	



Eco-Friendly Building		Renewable Energy Facilities	Low Energy Consumption Housing Complex Construction	
Green construction certification	Building energy efficiency rating certification	Eco–friendly houses with renewable energy	Installed LED street lamps within complexes	
130 projects	11 projects	149 units	23 districts	

# **Materiality Test**

# Step 1.

Identify Sustainability Issue List

#### LH's Material Sustainability Issue

LH's sustainability management is achieved through stakeholder participation. LH examines stakeholders' areas of interest and expectations that affect LH's business activities, and makes a report on them to help select material issues to be addressed. We will share sustainability management achievements that LH and our stakeholders have accomplished during the year.

To develop the sustainability issue list, LH conducted media research, benchmarking, international standards index analysis, and an internal data review. After the review process, we made a list of 34 issues related to sustainability management.

#### Media Research

To objectively understand the public awareness of issues related to LH's sustainability management, we analyzed broadcast media which mentioned LH, as well as articles featured in major magazines and newspapers related to LH's economy, management, social contribution, and environmenta safety from January 1, 2017 to January 31, 2018.

#### Review of Internal Materials

Benchmarking
We analyzed the sustainability management reports of several local and international construction companies, as well public companies noted for outstanding performance in sustainability management, to identify additional issues.

We identified issues related to sustainability management by conducting a review of internal data, the results of which were published in documents such as the main business activity report and performance evaluation report.

We analyzed global standards and initiatives related to sustainability management, including GRI Standards,

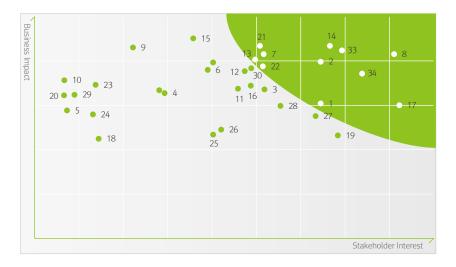
International Standards Analysis

ISO 26000, and UN SDGs.

#### LH's Materiality Test Result

We identified 11 core issues through the materiality test, and then prepared this report based on the 11 core issues. We will continue to share core issues through consultation between departments, and will endeavor to secure continuity in our business activities by addressing the shared core issues in our business processes and in setting corporate goals.

#### **Identification of Major Issues**



33

# Step 2.

Progress of Materiality Test

We conducted the materiality test through examining internal and external stakeholders' interests, expert evaluations, and an internal review based on sustainability management issues.

#### Stakeholder Survey

In an effort to understand the impact of stakeholders on LH-related issues related to sustainability management, we conducted a survey of our major stakeholder groups. The result of the survey was utilized as a basic resource to identify core issues of the materiality test.

# Step 3.

**Determination of Topics** 

The report topics are selected based on the reporting unit (topic) as defined in the GRI Standards core issues through the materiality test. We identified topics of interest that affect stakeholders, and planned to provide content and data that stakeholders are interested in.

#### Sustainability Management Core Issues

No.	Category	Core Issue	GRI Core Aspects	Reporting Topic	Page
8	Economy and Management	Enhanced Customer Satisfaction	Customer Privacy	Quality of Life Improvement	55~56
33	Fair Operating Practices	Diffusion of a Fair–Trade Culture, Including Anti–Corruption Efforts	Anti- Corruption	People-Centered Corporate Culture	52~53
14	Talent Management	Respect for Human Rights and Prohibition of Discrimination (Prohibition of discrimination based on gender, race or religion / Respect for diversity)	Human Rights Assessment	People-Centered Corporate Culture	47~49
34	Fair Operating Practices	Win-Win Growth Program for Partners	Anti- Corruption	Quality of Life Improvement	58~59
17	Social Contribution	Social Contribution Activities based on the Characteristics of the Construction Industry	Local Communities	Quality of Life Improvement	60~61
2	Economy and Management	Achievement of Stable Management Performance	Economic Performance	Growth Driver for Sustainable Value Creation	39~40
21	Environmental Safety	Eco-Friendly Technology	Energy	Green Value Creation and Growth	63~64
7	Economy and Management	Efforts to Strengthen Ethical Management and Prevent Corruption	Anti- Corruption	People-Centered Corporate Culture	52~53
1	Economy and Management	Strengthen R&D Capability	Economic Performance	Growth Driver for Sustainable Value Creation	44~45
22	Environmental Safety	Efficient Energy Management	Energy	Green Value Creation and Growth	65~67
13	Talent Management	Secure Work-Life Balance	Training and Education	People-Centered Corporate Culture	50

# Stakeholder Engagement

## Stakeholder Engagement

#### Stakeholder Definition

LH reviews major stakeholders according to their characteristics and unique initiatives, and divides its stakeholders into groups. Due to the nature of the construction industry, LH engages in its business through cooperation with a range of companies. LH classifies stakeholders into partners that play a key role in construction, such as design contractors, construction contractors, supervisors, and maintenance companies, as well as SMEs, enterprises for the disabled, social enterprises, and female–owned businesses for the supply of material and goods of construction.

#### Stakeholder Engagement System

#### Stakeholder-Oriented Management

LH wants to actively reflect the voice of our stakeholders in the management process. We classify stakeholders into groups based on our value creation system. We maintain communication channels that are customized for the shared values and areas of interest of each group, and their input is fully reviewed during our decision–making process. We will continue to listen to our stakeholders and integrate their perspectives into our business priorities to meet their demands and expectations.

#### **Stakeholder Communication**

LH aims to fulfill its management goals through expanding stakeholder communication channels. We strive to find the best communication channels for stakeholders – such as customer panel and partner meetings – to get feedback on a regular basis, which can then be reflected in our management decision–making process such as through the Board of Directors, and to actively respond to social changes and demands.

#### (Major Communication Channels and Core Issues)

Value Flow	Shareholder Group	Definition	Issue	Core Issue	Communication Channel	
					Online	Offline
Value Purchasing Customer	People Residents Local Communities	External Customers who Directly Purchase Production Value	Management Transparency Improving Service Contribution to the Local Community	Welfare Services Quality Improvement Revitalization of the Local Economy	Homepage Feedback SNS (Facebook, App)	CEO Policy Presentation VOC Steering Committee
Value Cooperation Customer	Civil Society Partners	Stakeholders who Deliver Values	Solving Social Problems Addressing Unfair Practices	Civil Society Management Engagement Construction Culture Innovation	Internet Project Competition Unfair Subcontract Reporting	Committee, Advisory, Unfair Treatment Report Center
Value-Impacting Customer	Government National Assembly Local Government	Organizations that Influence Customer Value Creation	Policy Enforcement Policy Development Local Benefits	Residential Stability Regional Development Urban Regeneration	SNS (Facebook, App) Business Contact Office	Current Events Briefing / Policy Forum Workshop for Public Corporations
Value-Creating Customer	Employees Union	Employees who Create Value for LH	Organizational Sustainability Improving Welfare and Working Conditions	Expansion of Functions and Tasks Achieving One-LH	Video Conferencing System Business Sharing Portal	Direct Communication with the CEO Labor–Management Joint Workshop

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Stakeholder Engagement

#### Stakeholder Interviews

To achieve LH sustainability management, we conducted interviews with our stakeholders from the representative stakeholder groups in order to better understand current challenges and to develop strategies for fulfilling our social responsibilities.

Academia /Expert



LH must respond flexibly to environmental demands for its sustainable management. Energy, environmental, aging, and medical problems will be key In the future. LH needs to take future-oriented initiative in residential environment. We hope that LH promotes projects to solve housing problem due to aging and to promote job creation, while responding to needs of senior citizens and young adults. The paradigm of housing and urban areas in which LH operates is rapidly changing with the times. For example, interest in urban regeneration has increased in the present government compared to the past. It is important for LH to play a role in presenting relevant agenda to society with a sense of crisis in population structure and urban change.

**Employees** 



Since its incorporation, LH has been continuously drawing pictures for the future growth. We are constantly struggling to maintain our public role, such as housing welfare and urban regeneration, in the difficult environment, as well as how to promote new growth engines such as smart new cities and regional cooperation projects. Therefore, LH should devote its efforts to strengthening its employees' capabilities as well as setting future visions and making items. The government and LH are interested in exporting overseas new towns as the future role of LH, LH is the only corporation that has successfully built large-scale new towns and knowledge of the new town is required by developing countries. In order to transfer what LH has done as a public administrator to overseas developing countries, localization is required. LH should be capable of transferring its system to local sites. Even though LH still has a lot of works, we need investment to strengthen our employees' capabilities to prepare for the future environment. We need to organize overseas new town teams by local bases, dispatch our staff and provide training to their competencies.

Customer (citizens)



In our society, housing problems are directly related to the lives of the people, causing various problems such as low birth rate and polarization. In this regard, LH's responsibility for the welfare of ordinary people will likely become more important. Above all, we would like LH to expand more diverse policies, especially the youth policy, so that the vulnerable classes are not alienated. In addition, the biggest issue in our society is the realization of social values of public institutions. We hope LH to take policies to support residents for the rental housing operation, rather than the economic benefits of LH. Increase jobs in the public sector is the greatest social contribution that LH can make to overcome the shortage of jobs, especially in depressed employment market for young adults. In order for LH to consistently play a public role, we need to put emphasis on being a widely-loved company from its customers (citizens). To gain trust and support, on one hand, LH needs to take initiative in ethical · responsible management. On the other, we must also satisfy many factors such as quickly responding to different customer complaints, actively engaging in public projects and managing a stable financial foundation. LH has made ceaseless effort and will keep doing our best to meet our customers' (citizens') viewpoint.

**Suppliers** 



00 Construction is a customer and partner of LH, and both companies have a long and strong partnership. In particular, 00 Construction is participating as a contractor in land development, apartment construction and landscaping projects at project districts implemented by LH, and is purchasing land developed by LH to supply apartments, while helping LH to achieve its original purpose of stabilizing national housing and creating economic value. In recent years, orders have been decreasing in the construction market. Private-Public Cooperative projects are becoming a new revenue source for construction companies. From the standpoint of companies, these projects help construction companies to reduce risk by solving burden of purchasing land expenses, and paying construction cost using pre-sales housing payment collection system. LH and construction companies share various experiences and provide improved housing. We hope to continue to cooperate with private construction companies to reduce mutual burden, and to expand Private-Public Cooperative projects to increase profits, thereby activating the construction market. Therefore, we hope to build a virtuous cycle structure to expand our public concern for mutual growth of public and private sector and residential stability of citizen as well as sustainable development of LH.





# CREATIVE WITH STAKEHOLDER

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Win-Win Partnership	5
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# Growth Driver for Sustainable Value Creation



#### **Background to Core Issues**

LH will contribute to Korea's economic development by carrying out its mission and goals. To this end, LH shall maintain financial stability through stable management and explore growth opportunities by discovering new businesses and services.

#### **Risk and Opportunity**

Financial instability and risks hinder the realization of our vision of "A Better Place to Live and Happy Housing with LH". Since its incorporation, LH has been preemptively responding to risks through its ongoing efforts to build a financial management system and to reduce debt. The difficulty of finding a home for the underprivileged, given the gaps of the existing system, is increasing social problems. Recognizing this risk, LH is providing a range of services to support housing welfare, and is building a stable supply chain.

#### 2017 Performance



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Growth Driver for Sustainable Value Creation

# Financial liabilities reduced by KRW 22 trillion and net profit increased by KRW 1.95 trillion for the last 3 years

#### (Financial Status)





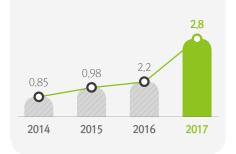
#### Changes in Financial Liabilities (Unit: KRW trillion)



#### (Profit and Loss)







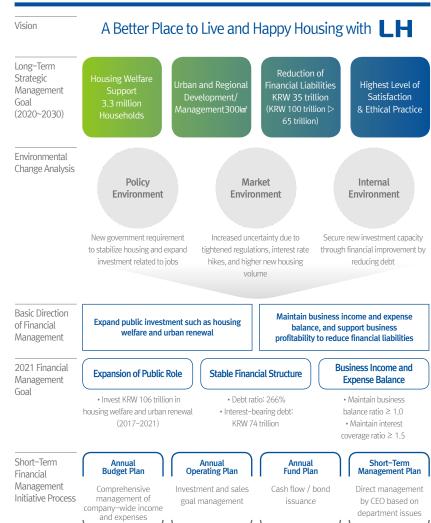
#### **Financial Soundness**

#### **Financial Management System**

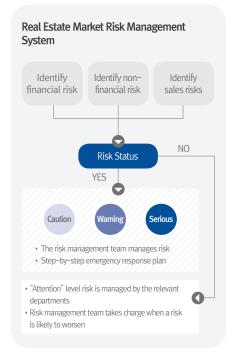
#### Financial Management Initiative Process

LH established a mid- to-long term financial management system to realize its vision of "A Better Place to Live and Happy Housing with LH". We will maintain the management goals and ensure their suitability, while supporting the execution of our financial plans, by reflecting the changes in the environment. We use the SRM (Sales Risk Management System) to manage financial risk and to measure the risk of real estate business fluctuations, and apply the FRM (Financial Risk Management System) at all times to measure the collection of money, execution of business expenses, and liquidity risk.

#### 〈Financial Management Initiative Process〉



Growth Driver for Sustainable Value Creation



#### Integrated Real Estate Market Risk Management System

LH has established an integrated management system for financial and non-financial risk, as well as market risk. We use SRM to establish sales risk management indicators, and have developed a manual to refer to in their regular monitoring. Our sales risk management department conducts monitoring on a monthly basis, while our sales practice council conducts occasional monitoring to prevent risks.

#### Improving Performance Evaluation and Granting Incentives

To improve our debt reduction performance, LH encouraged company—wide participation in debt reduction by linking the internal performance evaluation and the debt reduction plan. In 2017, "financial improvement performance" was reflected in the internal performance evaluation index. In addition, we improved our sales target management system to implement sales strategies that respond to the internal and external environments, including real estate forecasts and inventory assets. We made efforts to achieve our debt reduction goal by raising our sales target. We increased the proportion of evaluations in the first half of the year based on the business forecast that the first half would be better than the second half, and separately assigned a long—term unrealized land reduction target. In 2017, we gave a total of 40 awards to employees and departments for financial improvement, cost reduction, and sales efforts based on the debt reduction results.

#### **Financial Soundness Initiative Progress**

#### Debt Reduction

In 2017, LH achieved a record-breaking 109% performance compared to the plan by reducing debts by KRW 16.2 trillion. We significantly improved our debt ratio thanks to pursuing various efforts to reduce debt such as business adjustment, increasing our management efficiency, improving total sales, and changing our business methods.

#### (Achievement of Debt Reduction Target)

Classification	Unit	Business Adjustment	Management Efficiency	Total Sales	Changes in Business Methods	Other	Total
Plan	Unit: KRW 100 million	80,374	7,194	41,554	10,354	9,417	148,893
Record	Unit: KRW 100 million	80,618	7,938	47,938	17,419	8,948	162,252
Achievement Ratio	%	101	110	114	168	95	109

#### Minimization of Financial Costs

LH is implementing an optimal financing strategy to minimize financial costs. To cope with market changes such as rising interest rates, we have established preemptive financing strategies through proactive diagnosis and monitoring processes. To respond to the forecast that the financial market forecasting will be better in the first half than in the second half, we reduced the interest debt burden and financial cost by issuing won-dominated bonds at an optimal time, before the interest rate was increased in the first half of the year, and by using overseas bonds and short-term CPs in the second half of the year. In addition, we diversified our funding sources through the issuance of various types of bonds including regular bonds, mid- to-long term CPs, and structured bonds. As a result, our financial cost ratio in 2017 was 4.086%, 0.068%p decreased the previous year.

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# Growth Driver for Sustainable Value Creation

#### Consumer Tailored Housing Types

#### Classification Description Multicultural Ansan City selected as the best · Pilot project held for 50 housing units specifically for multicultural families Project expanded to cultural artists and voung entrepreneurs in the whole country Single Parent • Pilot project for single parent families Ministry of Gender Equality and Family and the Healthy Family Support Center · Apartments provided with favorable transportation conditions and high · Government subsidy allocated to cover (20% lower than basic rent) • 100 rental housing units provided for senior citizens who live alone in Gangwon KRW 10 million provided in lease deposit support for each low-income elderly non-• Facilities installed for the elderly (safety handles, height adjustable sinks emergency calls, emergency safety guards, · Social welfare facilities (social welfare centers) and senior citizen center

established





I H My Home Center

#### **Housing Welfare**

#### **Residential stability**

#### Resolving Housing Problems for Young Adults and Newlyweds

LH recognizes that the fact that young adults are avoiding marriage and parenthood because of the difficulty of buying a house of their own is a social problem. Therefore we planned housing welfare programs for young adults and newlyweds. We have expanded the number of young adult recipients from our rental housing and introduced the "share house" to reduce housing costs for young adults. In addition, we have changed our rental housing system to expand the supply of rental housing available to newlyweds. LH recognizes that newlyweds are working together to have a house of their own, and that families with children have a strong interest in home ownership. To reflect this in the system, the application requirements for newlyweds have been eased from "Within 5 years of marriage with children" to "Within 5 years of marriage". In addition, we have expanded the floor area in apartments for newlyweds and established new additional point system only for newlyweds for "re–rental housing".

#### Provision of Demand-Based Rental Housings

We recognize that the existing rental housing supply system is inadequate in terms of providing demand-based rental housing for the underprivileged, and for this reason we promote the provision of rental housing that is customized to demand. We have identified the residential needs of local and specific groups through the My Home Center in 42 locations. This enables us to provide various support for multicultural families, single–parent families, and senior citizens.

#### Residential Support Service

#### **LH Rainbow Service**

LH has introduced "LH Rainbow Service", our residential living service brand. This is a specialized service to address the growing need for living support service after moving in and to solve social problems such as the shortage of jobs and the low birth rate. In 2017, we established a roadmap for strengthening residential living services. We are striving to strengthen direct and shared services such as childcare in order to establish a sustainable virtuous cycle that goes beyond the provision of facilities and platform services.

#### Welfare Hub – LH My Home Center

LH My Home Center is a place that provides customized housing counseling services and various welfare services free of charge to those who need housing assistance. Specifically, we work in partnership with police stations, hospitals, and community welfare centers to provide welfare services for children, young adults, senior citizens, and the disabled.

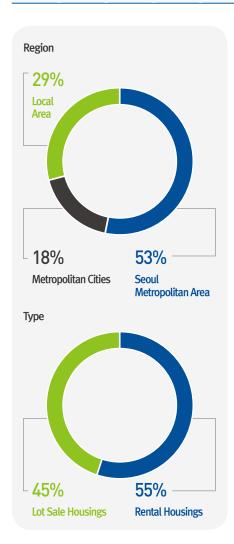
#### (LH My Home Center Welfare Service)

Classification	Service	Classification	Service
Children	<ul><li>Fingerprint Registration</li><li>Happy Dining Table</li><li>Career Experience Training</li></ul>	Senior Citizens	Medical Service     Handwriting Emotion Training     Filial Banquet
Young Adults	Employment Program     Job Consultation     Field Experience for Housing Welfar	Disabled	<ul><li>Self-Reliance Training Experience</li><li>Group Home Operation</li><li>Visit Contract</li></ul>

### **Housing Construction**

〈Cumulative Performance of Housing Construction〉

Classification	Households	Ratio (%)									Rent	al Housing	Lot Sale Housing
											1,455,29	98 (55.0%)	riousing
			Permanent	People	Happy Housing	50-year	5-year	10-year	Installment– Paid Housing	Deposit Lease Housing	Long-Term	Foreign	
Seoul Metropolitan Area	1,433,371	53.2%	65,835	344,787	67,108	9,772	43,991	110,916	11,401	2,833	72,239	2,904	701,585
Metropolitan Cities	473,508	17.6%	52,836	115,130	14,980	6,818	21,764	17,130	1,109	0	22,416	200	221,125
Local Area	788,296	29.2%	48,867	255,616	29,247	10,754	55,308	33,204	708	0	84,714	208	269,670
Total	2,695,175	100%	167,538 (6.2%)	715,533 (26.6%)	111,335 (3.5%)	27,344 (1.0%)	121,063 (4.6%)	161,250 (5.7%)	13,218 (0.5%)	2,833 (0.1%)	179,369 (6.8%)	3,312 (0.1%)	1,192,380 (45.0%)



#### (Housing Construction (Under Construction))

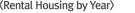
Classification	Headquarters	Number of Districts	Number of Zones	Number of Households
Regional Headquarters	Seoul	13	25	22,117
ricadquarters	Busan / Ulsan	3	4	1,750
	Incheon	20	39	30,470
	Gyeonggi	16	35	27,204
	Gangwon	4	9	6,149
	Chungbuk	6	9	8,517
	Daejeon / Chungnam	10	12	7,809
	Jeonbuk	8	9	6,376
	Gwangju / Jeonnam	10	10	3,671
	Daegu / Gyeongbuk	11	15	7,856
	Gyeongnam	11	13	7,730
	Jeju	2	2	740
Project Division	Sejong City	3	7	6,968
Total		117	189	137,357

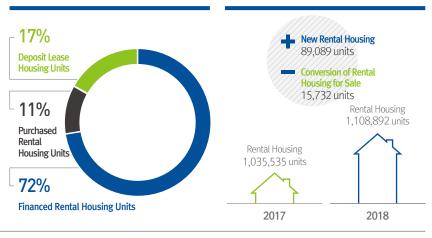
#### ⟨Operation of Rental housing⟩

(Unit: household)

Classification	Housing Type	Rental Housing as of the End of 2017	Conversion of Rental Housing for Sale in 2018	New Rental Housing Units in 2018	Rental Housing Units as of the End of 2018
Financed Rental	Happy Housing	13,218		13,183	26,401
Housing Units	Permanent Rental Housing	150,013		730	150,743
	50-Year Rental Housing	26,254		-	26,254
	National Rental Housing	477,688		6,506	484,194
	10-Year Rental Housing (Installment Paid / Long-Term Deposit Lease)	74,269	_	17,503	91,772
	5-Year Rental Housing	2,418		614	3,032
	Lease for Foreigners	450		-	450
	Retail Rent	2,956	_	214	3,170
Subtotal		747,266	-	38,750	786,016
	Multi-Household Houses	80,590	-	7,100	87,690
Housing Units	Young People	1,113	-	540	1,653
	Newlyweds	_	-	2,900	2,900
	Public Remodeling	84	-	2,758	2,842
	Unsold Housings	6,777	923	-	5,854
	Bankrupt Housing	18,266	55	140	18,351
	Urban Renewal	3,816	54	301	4,063
	Newly Built Multiplex Housing	4,433		-	4,433
	Lease Ritz for Young Newlyweds	261		2,000	2,261
Subtotal		115,340	1,032	15,739	130,047
Deposit Lease Hou	using Units	172,929	14700	34,600	192,829
Total		1,035,535	15,732	89,089	1,108,892

# $\langle \text{Lease Housing by Project Type at the End} \qquad \langle \text{Rental Housing by Year} \rangle$ of 2017 $\rangle$





Growth Driver for Sustainable Value Creation

#### **Competitive Advantages of Cities**

#### Spread of the Smart City

#### Improving Convenience for Smart Citizens

To create a happy living environment for residents, we have created "Smart Cities" that are safer and more convenient. We have introduced safety and security services to protect the vulnerable, including women and children. We have established a system linking 112 and 119 to minimize damage to life and property, and introduced "smart care" using "smart meter" information to monitor the safety of seniors living alone. We also built a smart recycling system to facilitate food waste disposal. We developed a food resource bio-system to allow people to dispose food waste from their sinks, without going outdoors. This improves living convenience to support a pleasant residential complex, while reducing waste and costs.

#### **Technical Convergence Smart City**

LH has created the Smart City based on technology convergence that reflects various technology elements in all its areas. We built a Smart City infrastructure that integrates spatial information technology in Sejong and Yangju. We adopted drones for all tasks and built an integrated disaster safety management system that enables virtual space simulation analysis. In addition, we collaborated with the National Geographic Information Agency and SKT to conduct spatial big data analysis. We developed the "Onnara Real Estate Portal" using big data to develop an interactive real estate information service to identify the deterioration rate of housing and the status of population movement. We became the first public corporation in Korea to achieve ISO 200000 certification, and have built our confidence through various awards such as the 2017 Good Brand Award and App of the Year at the App Awards Korea.

#### **Activation of Urban Regeneration**

#### **Urban Regeneration New Deal**

LH has reset its business direction in accordance with the paradigm shift of urban regeneration. Rather than physical regeneration by the existing administrative institutions, we have switched to customized urban regeneration led by local residents. At LH, we are leading the urban regeneration new deal project by utilizing our capabilities, strengthening the executing organizations, establishing strategies, and building collaborative systems. Through cooperation with local governments, we participated in 32 out of 68 pilot projects such as neighborhood revival, residential support, community, central city area, and economic base projects.

#### Community Collaborative Urban Regeneration

LH has built a new model for successful community collaborative urban regeneration in Okbong-dong, in the city of Jinju. Initially, the project was a simple improvement project for the village, but it succeeded in transforming into a model for improving the quality of life for residents and protecting their housing stability, while also creating jobs. Through the project, we trained 20 house repairers in Okbong-dong in order to build a self-sufficiency base among the villagers, and created good jobs, including positions for 15 village activists. Other remarkable achievements include 34 housing improvements, the construction of alleyways and green remodeling, resident community centers, and the improvement of retaining wall scenery.

#### Okbong Resident Collaborative Urban Renewal New Deal Model

Classification	Description
Improving the Quality of Life	Community center     Amenities sharing     Green remodeling of daycare center
Job Creation	<ul><li>Village activist employment</li><li>Operation of village cafe</li><li>Training of Okbong house repairers</li></ul>
Protecting Residents' Housing Stability	Support for housing repair     Remodeling of public shops     Improving low-income housing
Utilization of Local Assets	Opening of historical and cultural trail     Improve retaining wall scenery     Create village roads and gardens

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Growth Driver for Sustainable Value Creation



Pangyo enterprise support hub

Pangyo Creative Economy Valley Model depending on characteristics of corporate life cycle

#### Flat industrial complex

Company A + Company B + Company C + Knowledge Industry Center

#### Future industrial complex depending on characteristics of corporate life cycle



Public knowledg

Creative

Foster venture by private-sector



corporate

Public support for

Enterprise

Global Network

MICE, Cooperation Global Biz



Global Tongyoung Renaissance

#### **Creating Economic Foundation**

#### Creating Future-Oriented Innovative Industrial Complex

The Fourth Industrial Revolution is brought about a paradigm shift in industrial demands, from large scale manufacturing business to small and medium-sized high-tech convergence. At LH, we are actively responding to this change in demand and created innovative industrial complexes such as Pangyo Creative Economy Valley, Urban High-Tech Industrial Complexes, Specialized Local Industrial Complexes, to prepare for the Fourth Industrial Revolution beforehand and to follow through the preparations.

#### Pangyo Creative Economy Valley

To relieve space shortage in Pangyo Techno Valley and to create an ICT centered high-tech industrial complex that supports businesses by its development stages, we developed the Pangyo region as a leading model in the Fourth Industrial Revolution innovation cluster. Rather than the conventional flat industrial complex structure, we are implementing an innovative master plan to support a smooth process from establishing a company to growth and reinvestment through different public support and private cooperation depending on corporate life cycle. We have built corporate support hub for start-ups and corporate growth center for growth companies emerging from the start-up space.

#### Urban High-Tech Industrial Complexes

Urban High-Tech Industrial Complexes are designated to a city to promote and develop knowledge-based, cultural, and information and communication and other high-tech industries. We plan to enhance competitiveness in industrial complexes and supply urbanized industrial complexes that are in accordance with convergence among industries, and have already implemented Urban High-Tech Industrial Complexes in major cities(11places). We will create an innovative industrial complex that prepares for the Fourth Industrial Revolution and expand its performances to key regions throughout the country.

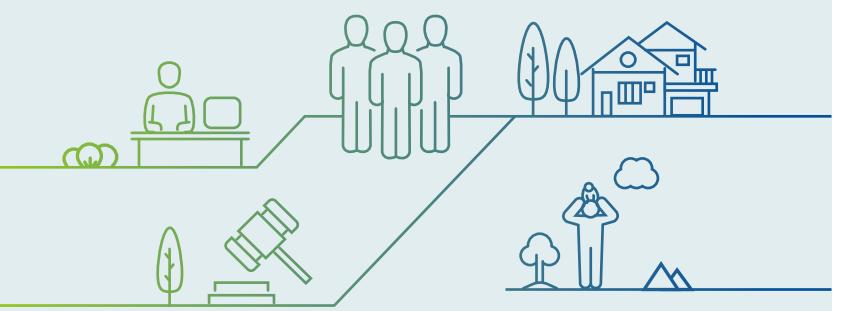
#### Specialized Local Industrial Complexes

In order to overcome the limitations of existing large-scale industrial complexes, we are creating jobs and boosting local economy in line with the government's master plan for promoting specialized industries and local development strategies. LH is carrying forward specialized local industrial complexes in 3 business districts (Gyeongnam: Aviation, Miryang: Nano Fusion, Jeonju: Carbon Material) by securing sufficient demand and financial support from local governments.

#### Regeneration of Old Port/Industrial Complexes

LH plans to develop waterside cultural complex, start-up support center, commercial and tourist accommodation facilities in a closed shipyard site (Shin-A shipyard) and to transform a waste shipyard area as a landmark for Tongyeong city. This plan is attracting attention to as an alternative to overcome the regional economic crisis caused by the slowdown of the shipbuilding industry. In addition, we are promoting regeneration projects to transform deteriorated industrial complexes, due to lack of facilities, pollution and security vulnerability, to growth base.

# People-Centered Corporate Culture



#### **Background to Core Issues**

Respect for diversity not only creates a more stable business environment, but also ensures the diversity of thinking within the organization, which leads to creativity and innovation. In addition, proper human resource development strategies and fair evaluation and compensation help companies develop capable human resources and improve employee satisfaction. Good human resource management contributes to corporate and social development by improving employee satisfaction. As we recognize the importance of human resource management, LH will continue to achieve its sustainable management vision of "Build Trust through Responsible Value Creation".

#### **Risk and Opportunity**

Recently, a growing number of companies have lost public trust by engaging in unfair and discriminatory treatment. LH strives to contribute to national happiness and national development based on ethical practices at our foundation, while securing diversity within the organization as an opportunity factor. We will continue to build trust with stakeholders by preventing corruption while protecting and developing the rights of our members.

#### 2017 Performance

Achieved <b>ZERO</b> Corruption at 2017 Evaluation	First Female Executive	Changing non-regular employees to regular employees <b>1,263</b> people



#### People-Centered Corporate Culture

# Human Resource Management Human Resource-Respecting Culture



New employee recruitment ceremony

#### Flexible Employment Status

Classification	Unit	2015	2016	2017
Science and Engineering Majors	People	2	62	328
Female	People	1	54	186
Local Talent	People	4	52	203
High School Graduates	People	1	31	75
Physical Disabilities	People	8	199	531
New Regular Recruits	People	10	140	531

#### numan Resource-Respecting Culture

#### Flexible Employment

Based on the concept of "LH Path–Finder" – our ideal employee candidate—we hire talented individuals who can work together fairly and transparently to achieve our mission and vision. In 2017, we recruited 531 new employees, up 391 from the previous year. LH is promoting the blind employment system for job–oriented recruitment. During the recruitment process, we completely block all information that can identify individuals, in order to avoid prejudice and discrimination. Thanks to these efforts, LH received the Ministry of Employment and Labor Award at the Blind Employment Contest. We respect the diversity and human rights of our employees and do not discriminate based on gender, age, religion, educational background, or physical disability, and fully comply with the Labor Standards Act and International Labor Organization (ILO) on the prohibition of forced labor.

⟨New Employ	ment in 2017〉	(Unit: People)	⟨Turnove
Gender	Male	345	Gender
	Female	186	
	Total	531	
Age	Under 30	479	Age
	30 ~ 50	50	
	Above 51	2	
	Total	531	

le)	(Turnover i	(Turnover in 2017)	
5 6 1	Gender	Male	177
6		Female	37
1		Total	214
9	Age	Under 30	14
0		30 ~ 50	42
2		Above 51	158
1		Total	214

LH is expanding its job opportunities for socially vulnerable groups to embrace equal opportunities and diversity in the workplace. In 2017, we hired 1,799 unemployed youth, senior citizens, women with a "career gap" and people from other socially vulnerable groups, up 368 from a year earlier.

#### ZERO Non-Regular Employee

Non-regular employees formerly accounted for 34.2% of LH's employees. This manpower structure reduced work efficiency due to the frequent replacement of employees, and led to conflicts between regular and non-regular employees. For this reason, LH recognized that changing to 100% regular employees provided an opportunity for organizational development. We made this change through a fair process. Deliberation was carried out step by step through the fair composition of the Change Deliberation Committee, which included a majority of outside committee members such as professors, certified labor attorneys, and other lawyers. In 2017, we completed the change of 1,263 non-regular employees to regular employees for job creation, an initiative that won us the Prime Minister's Award at the Job Creation Contest, and the Excellent Organization Award in the category of Changing Non-Regular Employees to Regular Employees, presented by the Ministry of Employment and Labor.

(Changing Non-Regular Employees to Regular Employees in 2017)

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Classification	Unit	2015	2016	2017	
Regular	People	5,951	6,073	6,455	
Short-Term & Temporary	People	1,479	1,304	143	
Unlimited Contract Workers	People	293	437	1,666	



Awarded grand prize at the Public employment job contest

### People-Centered Corporate Culture

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#### Respect for Diversity

LH is actively hiring female employees to respect the diversity of its employees, and is increasing the employment of socially disadvantaged groups.

#### (Employment Status)

Classification		Unit	2015	2016	2017
Gender Equality	Ratio of Female Regular Employees	People	1,057 (16.9%)	1,216 (18.7%)	2,263 (27.9%)
	Ratio of Female Managers	People	135 (2.2%)	163 (2.5%)	195 (3.0%)
Ratio of Socially Disadvantaged Groups in Regular Employees	Ratio of Physical Disabilities in Regular Employees	%	3.7	3.9	5.1
Age	20s	People	233	406	1.251
	30s	People	2,206	1,893	2.001
	40s	People	1,880	1,904	2.404
	50s	People	2,150	2,307	2.495

#### **Talent Development**

#### HR Development Strategies

LH has developed HR development strategies to achieve its management vision and goals. We have drawn up four HRD strategic tasks, which we are carrying out.

#### (HR Development Strategies)

HRD Vision	Foster creative and talen	Foster creative and talented individuals to create sustainable value.			
Quality We Seek	LH Path–Finders who pave	the way for the future throug	gh communication, creativity	, convergence, and insight.	
Strategic Goals	Foster LH Path–Finders who lead business Establish a knowledge industry pl. change Establish a knowledge industry pl. housing, and housing welfare				
HRD Strategic Tasks	Foster business specialists	Build a self-studying organization	Expand open education	Foster knowledge communicators and expand educational facilities	
Key Tasks	Establish a business professional system     Professional Academy	Reorganize the self- studying system     Activate self-studying	Discover new areas of education     Promote training projects	Foster (professional) in-house trainers     Expand educational facilities	



Path-Finder Trainin

#### Job Expert Training Program

We classified the competencies our employees need based on our job skill design. We developed 6 core competency training programs with the aim of strengthening our employees' competencies. The job expert training program has the goal of developing the mid—to—long term competence of "Specialized Generalists" who will be able to manage projects and oversee each functions such as planning, acquisition, construction, sales and management. Job experts can achieve certain levels of competency by ① performing their usual work; ② receiving necessary education; and ③ communicating their knowledge to colleagues. In 2017, the year of its introduction, 367 students completed 14 courses.



Town Hall Meeting

### First Female Executive in LH's 56 Years

#### (Completion Status of Core Competency Courses in 2017)

Classification	Housing Welfare	Urban Regeneration	Regional Development	Architecture Area	Strategic Project	Management	Mixture	Total
Number of Courses	2	1	1	1	3	2	4	14
Number of Completed Trainees	72	17	36	26	109	42	92	367 (Excluding duplicates)

#### Reorganization and Activation of Self-Study System

LH launched "Hakishisup", a self-study program that harmonizes the education needs of various employees rather than injecting the organization's goals unilaterally. Through the self-study program, employees can stimulate their intellectual curiosity in various fields for 2–3 hours (Pop-Up), regularly gather together to study (CoP, learning club), and attend Town Hall Meetings. In addition to the establishment and activation of self-study, LH prepared a new channel of knowledge and communication, the "LH Knowledge Battle", to improve the competencies of the organization and its employees. LH's "Hakishisup" program was awarded the Excellence Prize at the National Transportation Training Contest.

#### **Fostering Female Managers**

LH established an in-house training course, "Will Academy", to provide training for the leadership competency development of female managers. This training was provided to 38 female employees from levels 3 and 4 under the following topics: vision and goal, leadership, and achieving organizational performance. In addition to providing the training program and working to ensure that female employees are not faced with prejudice and discrimination when they seek promotions, the ratio of female managers has steadily increased, by 20% in 2017 compared to the previous year. In 2017, the first female executive (standing director) in LH's 56 years took office.

#### Fair Evaluation and Compensation

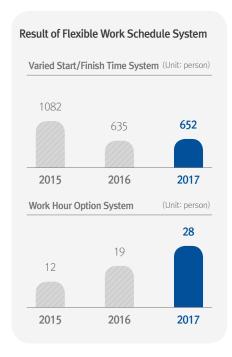
#### Fair Compensation System

At LH, we ensure equal opportunities and fair performance evaluations while preventing any discrimination based on gender or disability. For employees with the same job grade, we apply the same wage and welfare benefits. Executive directors are compensated through a basic annual salary, incentive salary, and retirement allowance. The incentive is paid according to the performance evaluation by the government. All employees receive an incentive salary within the annual salary budgeting guideline based on the performance differentials.

#### Efforts to Reduce the Wage Gap

LH has improved the treatment of lower ranking employees in order to reduce the wage gap. We found that our starting salary for new university graduate employees is lower than the average salary of similar organizations, and needed to be improved to attract excellent talent. LH prepared the necessary funds to raise the basic salary rate for new recruits at the expense of the salary of executives. The starting salary for new university graduate employees will be increased by KRW 600,000 in 2017, and by KRW 200,000 annually for three years, starting in 2018.

People-Centered Corporate Culture



#### Parental Leave Use Status

(Unit: person)

Classification	1 1	2015	2016	2017
Number of Parental Leaves	Male	22	27	29
	Female	191	148	126
	Total	213	175	155

#### Work-Life Balance

#### Balancing Personal and Professional Life

LH is continuously improving its welfare system to enhance employees' satisfaction and motivation to work. In 2017, we implemented a welfare system that focuses on improving the quality of life of our employees, reflecting our CEO's commitment to an organizational culture of "Work-Life Balance". To help our employees balance their professional and personal lives, and to improve working conditions, we have implemented 15 welfare benefits in 3 areas: a flexible work schedule system, a temporary leave/vacation system, and a compulsory finish time. In addition to these new systems, we improved the existing system to help our employees balance their professional and personal lives. Our Varied Start/Finish Time System allows employees to freely choose their work start and finish time every day. In addition, we improved the Work Hour Option System to ensure employees work no more than 40 hours a week. We have promoted the vacation/ leave system to ensure employees' right to rest and to increase the utilization rate of the system. 373 employees used our new "leave in advance system" in 2017, which allows employees to use their next year's leave in advance. In recognition of this achievement, we received the "Family-Friendly Certification" from the Ministry of Gender Equality and Family for the first time since our foundation.

#### Making a Healthy Workplace

At LH, we are creating a healthier and more family-friendly workplace environment through programs such as maternity care, gender equality, and family harmony programs. With more effective guidelines for our maternity leave programs, three childcare facilities are now available for female employees. In addition, we have strengthened our sexual harassment prevention system in nine areas, including anonymous reporting and the punishment of violations based on independent analysis. We have hired professional psychologists specialized in "emotional labor" and conducted 843 consultations, and additionally established regional safety and health centers. As a result, in 2017 we were selected as an "Excellent Workplace for Health Promotion Activities for Employees" by the Korea Occupational Safety and Health Agency.

#### Healthcare and Safety for Employees

LH is achieving a healthy workplace through the safety and health management of its employees. At LH, we established the Industrial Safety and Health Committee to implement guidelines for the safety and healthcare of our employees in compliance with the Occupational Safety and Health Act, the Labor Standard Act, and the National Health Insurance Act. We also maintain the safety of our workplace according to our internal safety and disaster prevention regulations to reduce accidents and disasters at workplaces. In 2017, we held a number of activities to reduce employee stress and promote health, including the "Five-Minute Miracle" first aid training for all employees, safety training for managers and non-regular employees in all departments, musculoskeletal medical checkups, the No Smoking/Health Promotion Program, and the Domestic Stress Relief Program. For these efforts, we have been recognized as an "Excellent Workplace for Health Promotion Activities" by the government. We have also contributed to changes in the health management awareness of our employees by posting and broadcasting stretching videos and by informing employees of the causes of and preventive measures for major diseases.

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#### People-Centered Corporate Culture



Labor-Management Cooperation Agreement for Social Value

#### **Advanced Labor-Management Culture**

#### Labor & Management-Harmonizing Culture

#### **Labor Affairs Improvement Strategies**

At LH, we have reorganized our labor affairs improvement strategies. Through an internal and external environmental analysis, we have arrived at a direction for improvement to solve the labor–management difficulties inherent to having multiple labor unions. As a result, we changed our labor–management vision to "Maximizing LH social value through labor–management relations with participation in respect of labor and management" to establish strategies and an action plan.

#### (Labor Affairs Improvement Vision and Strategies)

Vision for Labor Practice	Effectiveness of Labor-Management Strategy	Strengthening Labor-Management Cooperation	Building a Labor– Management Culture through Communication and Empathy	A Labor Culture of Mutual Respect
Action Plan	Reorganize labor— management strategy     Improve performance indicators     New multiple labor union strategy	Good job creation     Strengthen social responsibility     Realize work and life balance	Development of a communication channel     Strengthen labor- management partnerships     Strengthen labor- management competencies and the labor education system	Reasonable collective agreement     Activate a labor-management council     Enhance health promotior and strengthen industrial safety for employees

#### Labor-Management Communication

LH has established a communication system that reflects LH's environment. We have established four communication channels that reflect a diversity of communication methods and targets to enable smooth communication between labor and management.

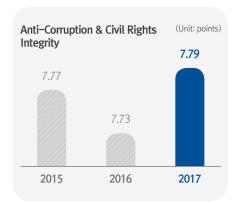
#### ⟨Labor-Management Communication Channel⟩

Classification	Communication Channel and Performance	Classification	Communication Channel and Performance
Direct Communication with CEO : Enhance trust through direct communication with employees and unions	Division of Labor Council: Labor-management discussion on	Cross-Communication within the Labor Union : Implement One-LH by expanding communication within the Labor Union	Labor-Management Joint Workshop: Discussions within 170 members of three labor unions     One-LH Consultative Group: Discussions on issues within labor union (68 times)     Labor-Management Consultative Group (includes external experts): Labor-management conflict prevention activities
Cross-Communication between Labor and Management : Share issues and policies between labor and management	Share current issues between CEO and three union chairpersons Labor-management "One Mind" athletic events: Participation of management and 3 unions Division of Labor Council: Debate on grievances and suggestions between labor and management	Employee-Harmonizing Communication : Create a place for employees to discuss management issues and offer suggestions	G-pi G-gi Program: Mutual Respect Activity (79 departments, 8,057 people) Stimulate communication among employees through a regular self-study system Young Future Creation Committee: Enhance performance and debate on management issues and offer suggestions

#### Strengthen Labor-Management Relations Management Capacity

LH has established a labor support team to achieve an advanced labor management culture. This was necessary in order to address external demands related to changes in government labor policies, the absence of an internal labor management control tower and the demand for a special labor–management training department. The new labor support team handles general labor affairs, and manages a special employee pool. LH is the first public company to establish a labor support team, build a systematic labor support system, and strengthen its professional education competency.

People-Centered Corporate Culture



### Human Rights Management System Status

Classification	Contents		
Responsible Organization	Future Innovation Department designated as a dedicated organization for rights management		
	Unfair treatment reporting center established to eliminate illegal activities		
System	Establish the Respect Code of Conduct		
Maintenance	Create a troubleshooting page for HR communication		
	Establish guidelines for multiparty relationship innovation		
Improvement of Corporate	Campaign for "Recognition, Fairness, and Positivity"		
Culture	Multiparty relationship innovation		

guideline ceremony (all-employee pledge and affirmation, including the CEO)

#### **Ethical Organizational Culture**

#### **Ethics Management System**

#### **Promotion System**

LH has set the ethics goal to "Achieve a transparent LH that is credible and trustworthy" so that all employees can conduct themselves appropriately and make sound decisions. To implement ethical management on a company—wide basis, all members of the board of directors signed the executive integrity contract and the LH stipulated Code of Conduct for employees. In addition, all partners are required to submit an integrity agreement for bidding (including on private contracts) to ensure that an ethical management culture is followed throughout the value chain. In 2017, we enhanced our ethical management system to include a monitoring and feedback system, and our integrity rating from the Anti–Corruption & Civil Rights Commission has risen each year.

#### **(Ethical Management System)**

Ethical Vision	A Transparent LH that is Credible and Trustworthy				
Strategy	Enhance Rights Management Preventive Ethical Programs Execution of Ethical Management				
Tasks	Enhance the human rights management system     Execute company-wide human rights protection efforts      Conduct customized ethics education     Develop participatory ethical activities      Improve the system and organization to prevent corruption				
Responsible Organization	Unfair Treatment Report Center Future Innovation Office Administration Audit & Integrity Ombudsman				
Normative System	9 cases, including guidelines for LH Code of Ethics, Code of Conduct, and Irrational Operation repo				

#### **Rights Management**

#### **Rights Management System**

To strengthen rights management, LH established a dedicated organization and improved the system and corporate culture.

#### Companywide Rights Protection Efforts

We are working to form a consensus on the protection of human rights and to diffuse this culture throughout the company. We have improved our recruitment system to eliminate discrimination, and promoted various activities to protect the labor and health rights of our employees.

#### (Human Rights Protection Status)

Classification		Contents	Performance
Non- Employment Discrimination		Awarded for efforts to practice blind employment in the Flexible Employment Competition	Awarded by the Ministry of Employment and Labor.
	Promotion	Established a female manager training course	Female managers increased by 20% (195 people)
Protection of Labor Rights	Employment Stability	Non-regular employees changed to regular employees	1,263 people (regular employees)
	Work-Life Balance	LH Flexible Work Schedule System / New child care leave	Certified as an excellent family– friendly institution by the Ministry of Gender Equality and Family
Protection of Health Health Rights		Arrange Safety Health Center and Psychological Counseling Room for each region	Selected as an excellent workplace for health promotion
	Safety Standardization	Automated external defibrillator provided at apartments for 500 households that are not legally obligated to have one	by the Ministry of Employment and Labor

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#### People-Centered Corporate Culture

#### Integrity Education for Employees

(Unit: person)

Classification	2015	2016	2017
Number of Trainees	5,951	6,073	6,455
Number of Completions (Duplicates Excluded)	7,192	6,813	7,162
Completion Ratio (%)	87.9	87.6	82.6

#### Participants and Participation Rate Status of Sexual Harassment

**Prevention Education** 

(Unit: person(%))

Classification	2015	2016	2017
Total Employees	8,012 (99)	7,766(96)	7,321(95)
Executive	1(13)	7(100)	6(100)
Short-Term & Temporary	1,786(96)	1,529(84)	143(100)

#### Participatory Ethical Activities

Major Activities	Training Content
Ethics Week	Integrity campaign during Ethics Week
Redface Test	• Increased the Behavioral Self– Diagnostic Test from 3 to 5 times a year
Idea Contest	Held a competition for ethical management / 16 applications submitted
Best Practices Contest	Rewarded 2 best cases of changes under the Anti-Graft Law
Competition Pledge of the Anti–Graft Law	Employees pledge to increase compliance with the Anti–Graft Law

# Result of anti-corruption measures by the Anti-Corruption & Civil Rights

2015	2016	2017
Excellent	Moderate	Very excellent
★★☆	★☆☆	食食食

#### **Preventive Ethical Programs**

#### **Customized Ethics Education**

We are operating customized ethical training programs to enhance our employees' understanding of ethical management. We provide "public ethics and integrity education" for new employees and "position–specific integrity education" for employees on the promotion list. We also provide job training in evaluation assessment and the Clean Evaluation Workshop for education in areas that need integrity support. In 2017, we expanded the number of Cyber Clean Evaluation Workshop courses from five to six and invited experts from each field to conduct integrity education. In addition, we expanded the scope of integrity education to first-level executives to strengthen our ethical management system.

#### **Human Rights Education**

LH regularly carries out sexual harassment and workplace violence education as a part of human rights education for employees. We designate and train sexual harassment and workplace violence counselors. We also encourage all employees, including executives, to take part in sexual harassment prevention education.

#### Participatory Ethical Activities

We hold participatory ethics activities to help employees internalize a consciousness of ethical awareness. In 2017, our ethical management score was 72.4 points, 2.8 points higher than the previous year.

#### **Execution of Ethical Management**

#### Improved System for Areas Vulnerable to Corruption

LH has enhanced its execution of ethical management by improving areas vulnerable to corruption. During the bidding period, all bidders were blocked from entering LH's workplace to prevent illegal appeals. We have established an Internet live-broadcasting and recording system to enhance the transparency of the bidding process. In addition, we have increased the number of business acts defined as improper from 5 to 22 to strengthen our corruption management. For example, in principle, LH does not choose a construction site restaurant in order to prevent any corruption related to exclusive contracts. If a construction site restaurant is required, we allow our contractor to select the construction site restaurant before bidding to prevent any intervention by LH employees.

#### Enhance the Organization in Areas Vulnerable to Corruption

In 2017, we changed the existing Technical Examination Group into the Technical Examination Office and increased the number of employees to strengthen the fairness of the technical examination. In addition, we carried out seven major improvement tasks in three related areas, and as a result were able to achieve ZERO corruption in the 2017 evaluation.

# Quality of Life Improvement



#### **Background of Core Issues**

As a company that is aiming to improve the quality of residential life and to use the land effectively, LH not only affects its customers but also local communities through the land and housing supply business. To realize improvements in quality of life, it is important for LH to understand the impact of its management activities on stakeholders, especially customers and communities. LH seeks to identify these potential and practical impacts and to become a public institution that enhances customer satisfaction and contributes to the development of local communities. We will realize improvements in quality of life through partnerships with partners who play a significant role in LH's management activities.

#### Risk and Opportunity

Declining customer and community trust is a risk factor for LH, which strives for housing stability and national development. For this reason, LH is working to strengthen its support base by providing products and services that satisfy customers and carry out a range of social contribution activities. The nature of the construction industry requires LH to maintain relationships with a range of partners. We understand the potential for mutual growth through partnerships with these partners, and are pursuing joint growth strategies.

#### 2017 performance

Number of Defects
per Unit in 2017

O.15 cases/unit

Number of Construction
Site Incidents
Reduced by 43%

Reduced by KRW 1.4 billion

55

Quality of Life Improvement

# Achieved customer satisfaction index "A" in public corporations

2015	2016	2017
Excellent	Moderate	Excellent

#### **Customer Satisfaction Management**

#### **Customer Satisfaction System**

#### Strategy

We are striving to achieve the highest level of customer satisfaction for a public corporation under our 2030 Business Management Goals as part of our corporate—wide management strategy. To this end, we have established customer satisfaction (CS) management plans and aligned our business practices with the focus on our customers to improve the quality of our service. We established long—term and mid—term roadmaps and a VOC Steering Committee. By 2020, we plan to have adopted a big data—based VOC feedback system.

#### (Customer Satisfaction Strategies)



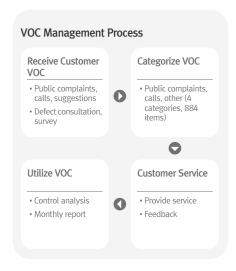
#### **Customer Communication Channels**

At LH, we are constantly listening to our customers through a range of channels. We provide both online and offline communication channels through which customers can voice their complaints or make suggestions, while also keeping them informed of the result of our review. We receive their suggestions on our business operation all year long, and reward those selected. During the fact–finding process or investigation, we keep the identity and personal information of the reporter confidential for their protection.

#### (Customer Communication Channels)

Classification	Contents
Public Reports	Reports of unauthorized budget spending, illegal/unfair practices at construction sites, illegal rental housing transactions, reports of corruption, whistleblowing
Public Suggestions	Listen to the public to collect creative ideas on our business practice and improve management through open communication
Public Complaints	Complaints and requests regarding tasks that might infringe customer rights, or that could create discomfort or burdens
Regulatory Reform Hot-Line	A channel for direct communication with the management on unfair regulations regarding compensation, design, construction, sale, rental, and maintenance work
My Home Call Center	Share information on the land, houses, and housing support we provide, and respond quickly to questions
	· · · · · · · · · · · · · · · · · · ·

Quality of Life Improvement



#### **Number of Handled VOC Cases**

Classification	Unit	2015	2016	2017
Suggestion/ Regulatory Reform	Cases	457	522	1,093
Public Complaints	Cases	29,631	26,491	38,241
Call Center	Cases	239만	229만	293만

#### **VOC Management Process**

We have established an integrated VOC (Voice of Customer) management process that encompasses consultations, purchases, and complaints. Feedback from customers is collected in real time through various communication channels for prompt response and review. In 2017, we introduced a system that manages VOCs, such as news related to LH and our SNS platforms. With the system, we collected and processed a total of 2.97 million VOCs, an increase of 11.3% compared to those of the previous year, and saw a significant increase in resident satisfaction.

#### **Improving Customer Convenience**

#### Utilization of Rental Housing

To enhance convenience for our rental housing customers, LH has made its rental housing complexes a platform for creating jobs and revitalizing communities. We have developed a differentiated community space in which residents can share childcare, education, and culture. We provide a "Rainbow Parenting Room", "After School Study Room", and "LH Farm" to develop our residential complexes into complex spaces which provide daily living services. These services are now in the pilot stage, and we plan provide them in more complexes in the future. We also provide care services for senior citizens who live alone and individuals with disabilities, and spaces for social enterprises, through which we contribute to job creation while improving our services. As a result of these efforts, we created jobs for 1,000 senior employees and 48 senior parcel delivery workers.

#### Online One-Stop System

We are providing a convenient experience for our rental housing residents by operating a comprehensive service, from moving in to moving out. They can have a fixed date for moving in without visiting LH. We simplified the process of issuing letters of recommendation for loans. We also increased the number of credit cards accepted for online rent payment from two to seven, and now provide an online application cancellation process.

#### One-Stop Housing Welfare System

LH operates "My Home" (http://www.myhome.go.kr), a one—stop housing welfare information system through which people can access information about housing welfare. We have integrated the government's housing policies in key areas, including Happy Housing, New Stay, Housing Allowance, and Fund Loans. In 2017, we built 42 My Home Centers as hubs for community welfare to provide customized housing counseling services and various welfare services free of charge to residents after conducting 110,000 consultations for a total of 13,000 rental housing units.

#### Establishing Total Repair Service

LH provides the LH Q+ Total Repair Service to improve the quality of housing and enhance the effectiveness of its customer service. We now offer the new LH Q+ Lounge service for up to 12 months after moving in to minimize customer inconvenience; this replaces the former defect control center that was provided in the initial stages of residence. In addition, we introduced the Construction Quality Master system and operate the Customer Quality Evaluation Program to strengthen quality control from contract to completion. As a result, the average number of defects per unit was 0.15 in 2017, a reduction compared to 2016.

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Quality of Life Improvement

#### **Public Safety and Security Management**

#### Safety Management System

We strive to establish a strong safety management system and build a sense of trust from the public. To this end, we have established three major strategies: building a safe residential environment, creating pleasant and safe cities, and creating safe workplaces.

#### ⟨Safety Management Safety⟩

Goals	Build trust through	disaster prevention and s	afety management
Strategy	Safe Residential Environment	Creating pleasant and safe cities	Creating safe workplaces
Critical Point	Earthquakes, Fires, Crime Prevention (Health)	Fine Dust, Earthquakes, Fires, Sink Holes	Industrial Accidents, Heat Waves
Action Plan	Participation and customized training     Build a quick disaster response     system     Strengthen safety facilities for socially     vulnerable groups	Establish measures to reduce fine dust     Strengthen safety of multi-use     facilities     Perform underground safety impact     assessment	Implement on-site safety policy     Enhance safety of five high-risk construction projects (tower cranes, etc.)
Organization	Emergency Management Agency (Headquarters + Regional Divisions)	Environment and Traffic Office, Complex Technology Office	Construction Safety Office, Complex Technology Office

#### **Safety Management Activities**

#### Safe Residential Environment

LH Regional divisions in the Pohang Area conducted joint training with 27 organizations, including the government and municipal governments, 12 days before the 2017 earthquake in Pohang. This training was provided for 250 people in rental housing and construction sites using a mobile video reporting system and a disaster control system with CCTV. Thanks to the preliminary training, LH was able to promptly operate its response system for the disaster. As a result, LH received an honorary award as for its assistance during the Pohang earthquake. In addition, LH has worked to improve the residential environment of its existing rental housing, and aims to secure housing for 2.5 million residents. Our efforts to make improvements in areas such as fire safety, crime prevention, and public health include installing new fire extinguishers in 90,000 units, replacing 18,000 CCTVs with high–quality CCTVs, and delivering AEDs (Automated External Defibrillator) to 100% of our 294 rental complexes.

#### Creating Pleasant and Safe Cities

The concentration of fine dust in Korea's atmosphere has reached a very serious level. The government is working to improve air quality by taking emergency measures. LH has established comprehensive measures to reduce fine dust in line with the government's policy. These measures consist of 14 steps, addressing aspects of project planning, construction, and management. The countermeasures were applied to all LH workplaces (420). In order to prepare for disasters such as fires, earthquakes, and sinkholes, LH strengthened disaster facility installation standards to ensure the safety and health of the public.

#### Creating Safe Workplaces

LH aims to protect the safety and health of workers by creating people–centered workplaces. In our process of reform we have sought opinions through meetings hosted by CEO and Division Heads, the online and offline Construction Culture Innovation Centers, and the Construction Industry Innovation Forum, held in December, to introduce innovation to the construction sector and share best practices for quality improvement at construction sites. As a result, LH was able to achieve cost, activity, and awareness improvement. LH conducted an analysis of repeated accidents to devise ways to better ensure the safety of workers at construction sites. Five high-risk safety incidents were selected in this process, and the causes were diagnosed through on–site inspections, opinion collection, expert advice, and risk model analysis. These safety measures have allowed LH to reduce construction site accidents by 43% compared to 2016.



CPR training and defibrillator supply at rental housing units

Quality of Life Improvement

#### Shared Growth Assessment for Public Corporations









Good







Win-Win Cooperation Fund Arrangement between LH and IBK

#### Win-Win Partnership

#### **Shared Growth System**

At LH, we have established a shared growth system to fulfill our corporate social responsibility and contribute to the economic development of our country, Each year, we set our goals and missions and reflect them in our business plan, thereby enhancing our execution ability. In addition, we have established a foundation for shared growth through the development of new specialized organizations such as the Shared Growth Enforcement Bureau, Shared Fair Trade Enforcement Bureau, and Construction Culture Innovation TF.

#### **Establishment of Fair Trade Order**

#### System Improvement and Practice

We have improved our system and practices to establish a fair trade order. We expanded the target and ratio of advance-paying our partners, without consideration of the contract period. In 2017, we paid KRW 305.4 billion in advance. In addition, we are the first public corporation to build an on-line bidding system in order to improve our bidding and contracting system, saving our customers time and money. To protect the rights and interests of construction workers, we improved working conditions on construction sites, including rest areas and health promotion centers, and conducted safety education for foreign workers using translated materials (13 languages).

#### Subcontractor Protection Policy

LH has established a transparent process order by addressing unfair practices and establishing a fair trade culture. Due to the nature of the construction industry and the excessive number of subcontractors involved, payments have often been delayed. In 2017, LH developed a Subcontractor Protection Policy to prevent delayed payments. As a result, delayed payments decreased from KRW 4.8 billion to KRW 3.4 billion, and we were able to achieve zero delayed payments before the Chuseok holidays.

#### Support for Small- and Medium-Sized Businesses

#### Financing and Sales for Small and Medium-Sized Businesses

We are focused on creating a self-sustaining base for SMEs to strengthen win-win cooperation. We have increased our unsecured/low interest win-win cooperation fund to 200 billion, up from KRW 100 billion, so that the number of SMEs supported has increased to 674 from 305 companies. The amount of loans in 2017 was KRW 197 billion, which was double the number in 2016. In addition, we held a special suggestion contest for small or new design contractors to lower the barrier to entry for SMEs, and held a briefing session through our material and method information exchange system. At LH, a total of 416 jobs were provided, and 11 companies were able to find their market.



#### **Employment Support of Excellent Talent in SMEs**

We developed a job information app to stabilize the employment of talented people in SMEs. We supported the recruitment of 3,400 construction workers through an interactive job fair between SMEs and workers at LH construction sites. In addition, we held a recruitment fair for partners to hire 19 local talented workers, and supported 30% of their starting salary. Recognizing the high turnover rate in the construction industry, we provided the Naeilchaeum Fund for 200 employees from 31 companies to guarantee the employment of key employees.





#### Social Economic Support Plan

#### Support Plan Utilizing Public Shopping Arcade

We recognized the need for social economic rejuvenation to solve social problems such as youth unemployment, and provided support measures to bring social welfare services to residents while solving social problems. We came up with the concept of turning existing shopping arcade lots into a public shopping arcade to provide a cheap and stable space for social enterprises and young start-ups. In 2017, we launched a pilot project for 21 units and in 2018 we plan to expand the scope to 265 units.

#### Support for Social Enterprises

In 2017, we supported start-up expenses, space, and consulting for 25 social ventures that try to solve social problems with a creative and challenging venture spirit. In addition, we carried out 365 rental housing repairs in collaboration with social enterprises, resulting in the creation of 400 jobs. To nurture the social economy, we introduced a bidding merit system for social operative unions. In 2017, we purchased KRW 40.9 billion worth of social enterprise products to invigorate social enterprises.



### Quality of Life Improvement

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#### LH Social Contribution

#### **Social Contribution System**

#### Strategy

LH is dedicated to fulfilling our social responsibility, while utilizing the nature of our business. Our social contribution activities are rooted in our founding principles and areas of business. At LH, we are actively pursuing our social contribution programs with our CSR Corp and 75 nationwide LH "Nanum" Volunteer Corp groups to monitor its progress. To encourage employees to actively participate, we also implement incentive schemes such as Best Departments and Employee Awards for social contribution performance indicators. In 2017, we expanded our incentive system to grant the Nanum King awards to our three top employees in the area of volunteering.

#### ⟨Social Contribution System⟩

Goals	A Public Corporation th	at Shares with the Neglected	and Local Communities
Strategy	Share Hope	Share Happiness	Share Harmony
3,	Training & Creating Jobs	Housing Welfare/Medical Care	Shared Growth with the Local Community/Volunteers
Core Business	Establishment of a local childcare center     Mentoring program for rental housing residents' children     Support for young adults' social ventures	Providing meals for children in rental complexes Providing remodeling of old housing Support for lower-income groups, health stairs, etc.	Cultural performances for local residents     Employee's talent donations     Support for the PyeongChang Winter Olympics







'Happy dining table' for children living in rental housings

#### **People Involved Social Contributions**

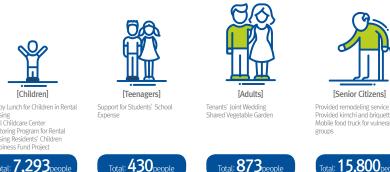
LH has established a system in which people can participate in the entire process of social contributions. We held the Social Contribution Idea Contest to collect innovative ideas, and helped people participate in social contribution activities through Social Venture Crowdfunding. After the social contribution activities, we conducted surveys to collect feedback, and reflected on the feedback in the next planning process to improve the satisfaction of beneficiaries.

#### **LH Social Contribution Activities**

#### Social Contributions Tailored to Different Life Stages

We considered the needs of beneficiaries at different life stages to provide social contribution activities that reflected local characteristics.

#### (Social Contributions Tailored to Different Life Stages)



#### Social Contributions Tailored to Regions

To fulfill our social responsibility through social contribution accompanied by regional mutual growth, we make customized social contributions.

#### (Social Contribution Tailored to Regions)

#### [Loving Neighbors]

• Volunteer activities in remote areas (Haircuts, medical support, legal counseling, laundry, meal service)

#### [Training Support]

- Jinju Math Experience Center (KRW)
- Touring museum (5 schools)

#### [Environmental Improvement] [Cultural Experience]

- Installation of LED street lights (2 places)
- Installation of heat carpets at accident hazard spots (4 schools) • Creation of a village garden (KRW
- 0.15 billion) · Installation of fire safety facilities (300 households)
- Music events (2 times) Movies (3 times)
- Book concert (1 time, 4,200 people)



#### Support for 2018 Pyeongchang Winter Olympics · Paralympics

LH supported infrastructure and operations for the 2018 Pyeongchang Winter Olympics · Paralympics. We built the Gangneung Athletic Village and Media Village (3,483 households, KRW 596.8 billion) for athletes and reporters and provided various smart services to support the convenience of facility users. In recognition of this achievement, we were the only public corporation to be selected as a sustainability partner of the organizing committee and became an official sponsor of the Olympics.







President and LH employees who become permanent employees at Pohang Earthquake Site

#### Disaster Recovery System

In 2017, there were several national disasters, such as the Pohang earthquake. LH provided human and material support to accelerate disaster recovery. Last summer, we provided repair equipment and necessities and dispatched a volunteer group to the Chungbuk area, which had been damaged by floods. Immediately after the Pohang Earthquake, we operated a housing support team and dispatched a volunteer group to Pohang to help quick disaster recovery.

# Green Value Creation and Growth



#### **Background to Core Issues**

As the adverse impact of human activity on the environment increases, companies are working to make positive changes based on 2015 Paris Climate Convention. LH recognizes its responsibility for environmental protection and promotes green management. We are leading eco–friendly housing construction that is compatible with the nature of our business, and have established a green management system to contribute to the happiness of future generations. We will fulfill our responsibility for the earth and future generations by minimizing negative environmental impacts that may arise from our business activities.

#### Risk and Opportunity

Housing construction and urban development in the construction industry pose a serious threat to the global environment. To prevent the risks that may arise from its business, LH has developed eco-friendly technologies and introduced an efficient energy management system. Through continuous green management activities, we will contribute to happiness of future generations and satisfy the public.

#### 2017 Performance



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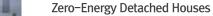
**Green Value Creation and Growth** 

# Green Value Creation through Business

### Leading Eco-Friendly Housing Construction

#### Eco-Friendly Facilities in Public Housing

At LH, we install eco-friendly facilities in public housing to strengthen the energy welfare of the underprivileged. In keeping with this goal, we applied 100% LED lighting to all households and installed photovoltaic power generation facilities on the roof of 38,000 long-term rental houses in 2017. As a result, we can expect to save KRW 6 billion in electricity fees every year. In addition, we made LH apartments that produce and sell electric power using idle emergency generators. We launched this as a pilot project in 2017 and will expand the service to the entire region from 2018. This will eliminate imbalances between supply and demand and reduce the management cost (KRW 12 billion per year).



LH has supplied detached houses with heating costs of just KRW 220,000 per year by using zero-energy construction technology, a first in Korea. Most detached houses impose a heavy burden due to their excessive cooling and heating costs, while zero-energy rental detached houses have reduced energy costs. Zero-energy detached houses are equipped with high-performance insulation and solar panels, and this technology has been applied to 298 houses at Gimpo Han River, Osan Segyo, and Happy City.



ROREN (Zeo Energy Rental House)

Rooftop solar power facility

#### Reduction of Electricity Fees and Maintenance Costs

We expect a reduction in electricity fees and maintenance costs by leading eco-friendly housing construction, including LED lighting, emergency generator power sales, and zero energy detached houses.

#### ⟨Reduction of Electricity Fees and Maintenance Costs⟩

Classification	Contents	Performance
Photovoltaic Power and LED Applications	Installed photovoltaic power generation facility on the rooftops of 38,000 long-term rental housing units in 2017     Replaced existing lighting with LED lighting for all households	
Emergency Generator Power Sales	Utilizing idle emergency generators in rental housing complexes to generate and sell power at peak times (Pilot project in 2017, expanded from 2018)	Reduced maintenance costs (annual KRW 12 billion)
Zero-Energy Detached Houses	Construction of detached houses with high- performance insulation and solar panels (Started 298 units in 2017)	65% reduction in heating costs compared to regular houses (KRW 650,000 ⇒ KRW 220,000)

Green Value Creation and Growth

#### **Energy-Independent City**

#### Fuel Cell<sup>1)</sup> Business

LH worked in collaboration with a private enterprise to introduce an eco-friendly power plant in the city to secure energy independence. For a small-scale regionally distributed generation system, LH provided a site for fuel cells to build a pilot model in Daejeon, while taking charge of energy purchase, supply, and management. By implementing this project, we can provide electricity and heat to 23,000 households and reduce carbon emissions by an amount equivalent to 120,000 trees. We can also fulfill our social value by creating 1,200 jobs.

1) Fuel cell: A power generation system that simultaneously produces electricity and heat by the electrochemical reaction of hydrogen and oxygen

Air

Air

Air anode

Fuel reformer

Air anode: H<sub>2</sub> → 2H+ + 2e- (Electricity generation), Fuel anode: 1/202 + 2H+ + 2e- → H2O (array occurrence)

• STACK: Key facilities for producing electricity

• BOP: Equipment to supply hydrogen and oxygen (MBOP), to process electricity produced (EBOP)

### produces electricity and thermal energy by the electrochemical reaction between hydrogen (H<sub>2</sub>) and oxygen (O)

A high-efficiency, eco-friendly power generation system that

#### Energy Efficiency through Green Remodeling

LH enhances the energy efficiency of old buildings through its Green Remodeling (GR) project. The Green Remodeling project reduces the energy consumption of buildings by 20% and converts old buildings to new, energy–saving green buildings. LH has been designated as a Green Remodeling Creation Center and has carried out this project since 2016. We expanded our target of public buildings from local governments to public institutions in an effort to support their construction expenses and project planning. In addition, we expanded our target private buildings to support construction loans and interest and are expanding lending from financial institutions so that more buildings can save energy. This project will result in a reduction of 18,000 tons of GHG emissions and significantly improve energy efficiency by reducing energy use. In addition, it will enable a reduction of heating costs by KRW 35,000 per month per household, and create 1,300 jobs.



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**Green Value Creation and Growth** 

#### Reduction of Environmental Impact

#### **Green Management**

#### **Green Management System**

At LH, we assess the environmental impact of all our decisions and work processes in terms of organizational operation and management activities. Each division considers the impact of their organizational activities when setting their environmental goals, and we are implementing our Green Purchasing plan to promote more eco-friendly practices along with our corporate—wide energy saving efforts. In addition, we apply stringent industrial standards to the environmental aspects of our organization, products, and services through Environmental Assessment, Preliminary Disaster Inspection, and ISO14001 Certification to create more eco-friendly value.

#### **Energy Saving Activities**

At LH, we implemented corporate—wide energy savings plans under the government's Guidelines for Rationalizing Energy Consumption of Public Organizations. We are maintaining our indoor temperature at 28°C in summer and 18°C in winter, while limiting the operation of air–conditioning and ventilation systems. We also turn off the lights in our offices during lunch hours, and have installed LED lights and other more energy-efficient office equipment as part of our daily energy savings plan. In addition, we use ecofriendly hybrid vehicles for our business operations and have established energy saving campaigns such as carpooling, Vehicle Days, and a shuttle bus for the transportation of our employees.

#### Eco-Friendly & Energy-Efficient Office Building

In 2015, we moved our office building to Jinju Innovation City. Designed with the "Thousand-Year-Old Tree" as its motif, our new office building is intelligent and ecofriendly with renewable energy systems such as a photovoltaic system and a wind-power generation system, as well as a green roof, and has been certified as the highest grade in terms of energy efficiency. With the use of highly efficient PF (Phenolic Foam), triple-coated Low-E glasses, and an awning in the southwest direction to block the sunlight as part of the passive design, we minimized the energy consumption of the building while installing highly efficient energy systems and LED lights. In addition, we introduced renewable energy systems such as photovoltaic, geothermal, solar, and wind power generation systems, which cover 11.8% of the entire energy consumption while incorporating BEMS (Building Energy Management System) in our energy monitoring system. In 2017, the annual energy consumption of our office building is estimated as 120.7kWh/m², which is one-fourth the amount used by most other buildings (500kWh/m²) and it is the high-grade first building with a total floor area of 100,000m<sup>2</sup> or more (LH Office Building: 109,520m<sup>2</sup>) to reduce energy consumption by 60% (300 →120.7kWh/m² · year). Meanwhile, the building is equipped with a water recycling system which allows us to use recycled water for landscaping, restrooms, and cleaning while installing water-saving facilities in our rooftop park and other areas as part of our environmental value creation plan.

Green Value Creation and Growth

#### Minimizing Environmental Impact

At LH, we use the Geographical Information System to manage information about our ecosystem and biodiversity and preserve habitats to protect endangered species. In addition, we apply strict regulations and guidelines to our waste disposal process for every construction project we undertake, and discharge all water into local sewage treatment facilities to minimize the environmental impact.

#### Response to Climate Change

#### Carbon Emission Inventory

At LH, we manage carbon emissions in terms of green areas including construction, renewable energy, transportation, and natural resources using the urban carbon emission inventory. Our employees can access the web-based LH carbon emission analysis system (http://co2analysis.lh.or.kr) to monitor carbon emissions in each area. We apply individual goals and financial analysis in the development process of CDM projects. We are incorporating the Green City Carbon Emission Inventory in our urban planning, and increasing the number of trial cities with the aim of reducing urban greenhouse gas emissions by 37% by 2030.

#### CDM Projects

Since the registration of the Pyeongtaek Sosabeol Renewable Energy Project from the UNFCCC (United Nations Framework Convention on Climate Change) as the first land development district in the world, we have continuously developed CDM projects and registered them with the UNFCCC to earn carbon credits. In September 2011, we pursued greenhouse gas reduction through photovoltaic distribution in public rental housing complexes into CDM projects, and completed the registration of the Korea Renewable Energy System Program CDM for Multi-Unit Housing with UNFCCC in December 2012. Rather than being a one-time project, the Program CDM allows individual projects using the same process to be registered in the UNFCCC. As a result, we expect to secure approximately 180,000 tons of carbon credits thanks to photovoltaic distribution projects we are undertaking: these carbon credits are equal to planting about 61 million pine trees. Currently, follow-up tasks such as carbon credit issuance and the additional registration of CPA under Program CDM are in progress. The profits earned from CDM projects are being reinvested into related R&D. In 2016, we expanded the use of renewable energy, such as solar energy, to an integrated energy supply facility and rental complexes, and acquired 9,000 tons of CO<sub>2</sub> as a result.LH received the Certified Emission Reduction from the UN for the supply of solar power, the first ever in the building category in Korea. We are planning to develop various renewable energy projects using photovoltaic systems, fuel cells, small wind power facilities, and geothermal energy.

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#### Environment

Classification		Unit	2015	2016	2017
Energy	Fossil Fuel	TJ —	70.9	71.5	70.0
Consumption	Gas	TJ	_	_	-
	Electricity	TJ T	331.7	330.9	332.8
	Heating	TJ	17.8	20.0	22.0
	Total	TJ	420.4	442.4	424.8
GHG Emissions	Scope 1	tCO₂e	4,235	4,321	4.276
	Scope 2	tCO <sub>2</sub> e	16,768	16,835	16,932
	Total	tCO <sub>2</sub> e	21,003	21,156	21,208
Water Usage	Clean Water Usage	ton	208,052	228,857	227,652
	Recycling Volume	ton	15,410	22,300	29,941
	Ratio of Recycling	%	7.4	9.7	13.2
Waste Materials Generated & Recycled	General Waste Materials	ton	220.8	162	162
	Designated Waste Materials	ton	_	_	-
	Recycled Waste Materials	ton	21.9	122,2	118
	Ratio of Recycled Waste	%	9.9	75.4	72.8





# FOR TRUST MANAGEMENT

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Risk Management 71

Information Security System



# Transparent Operation of the BOD

#### **Board of Directors (BOD) Composition**

LH's Board of Directors (BOD) consists of fifteen members in total: seven executive directors and eight nonexecutive directors. It is chaired by the senior non-executive director to improve governance and contain the management. Non-executive directors must share LH's vision, have thorough knowledge and experience in LH's area of expertise such as land · urban and housing, and abide by the law while also having the moral standing to act as public officers.

#### (Executive Directors)

Name	Title	Position	Gender
Park Sang-Woo	CEO	President	Male
Heo Jong-Deok	Executive Director	Standing Auditor	Male
Yoo Dae-Jin	Executive Director	Vice President, Head of Planning and Finance Division	Male
Jang Ok-Sun	Executive Director	Head of Administration Innovation Division	Female
Bang Seong-Min	Executive Director	ector Head of Housing Welfare Division	
Cho Hyeon-Tae	Executive Director	Head of Smart City Division	Male
Kim Han-Sub	Executive Director	Head of Public Housing Division	Male

#### ⟨Non-Executive Directors⟩

Name	Experienced Employee	Gender
Kim Hyeon-Il	Visiting Professor of Journalism and Mass Communication at Dongguk University	Male
Cho Jin-Hyeong	Professor of Industrial Engineering at Kumoh National Institute of Technology	Male
Heo Jae-Wan	Professor of Urban Planning · Real Estate at Chung–Ang University	Male
Won Ho-Yeong	Chairman of National Unification Advisory Council, Jinju-si	Male
Cho Man	Professor of KDI School of Public Policy and Management	Male
Roh Sik-Rae	Vice Chairman of the Seoul Metropolitan Sports Council	Male
Lee Jae-Jun	Visiting professor of Public Policy Graduate School at Ajou University	Male
Kim, Jung-Ho	Secretary General of international e-Sports Federation of Disabled Persons	Male

#### **BOD Operation**

LH pursues sustainable management through the fair and transparent operation of the BOD. The BOD adopts resolutions by a majority vote

of the current directors, and any director who has a stake in the items on the agenda in question cannot participate in voting. The BOD is held on a monthly basis, and special meetings can be called if necessary. In 2017, a total 13 BOD meetings were held to address 39 agenda items (29 items adopted, 10 items reported). Meanwhile, we keep non-executive directors informed of our management practices in a timely manner to promote their understanding and participation, and arrange site visits and public relations activities.

#### ⟨BOD Operation Result⟩

Classification	Unit	2015	2016	2017
Number of Meetings	Meetings	12	13	13
Resolutions	Items	28	29	29
Subcommittee's Preliminary Review Rate	%	100	100	100
Non-Executive Directors' Attendance Rate	%	93.8	90.4	87
Non-Executive Directors' Statement Ratio	%	58	72	74

#### Subcommittee Operation

LH has subcommittees and an audit committee under the BOD for in–depth review of the agenda delegated by the BOD or for matters that require preliminary review before any decision is made by the BOD. In 2017, LH held 11 subcommittee meetings to address 27 agenda items prior to BOD deliberation.

#### **Evaluation and Remuneration**

Executive directors are compensated through a basic annual salary, incentive salary, and retirement allowance. The incentive is paid according to a performance evaluation by the government. The president receives an incentive salary according to the management contract, while other executive directors receive an incentive salary within 100% of their basic annual salary based on the performance review determined by the president. We announce compensation of directors in accordance with relevant laws and regulations.

#### ⟨Remuneration of Directors in 2017⟩

Classification		Unit	2017
Executive Directors	President	KRW thousand	116,766
	Standing Auditor	KRW thousand	93,411
	Directors	KRW thousand	93,411
Non-Executive Directors		KRW thousand	30,000

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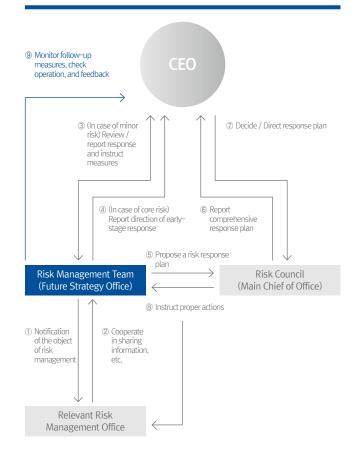
## **Risk Management**

#### Risk Management Structure

#### Risk Management Process

At LH, we maintain a set of guidelines and procedures for managing various risks to establish a foundation for sustainable growth. We identify and respond to these threats through either "Risk Management" or "Crisis Management". When dealing with company—wide risks, our Risk Management Team takes the initiative, while project or support—related risks are managed by the risk manager of each division. Risk management is conducted through prompt responses with the aim of minimizing damage while taking appropriate follow—up measures to assess the risk management performance and identify the areas of improvement.

#### (Risk Management Process)



#### **Relevant Organization**

Risk Management Committee | The Risk Management Committee is the supreme decision–making body in the area of risk management, making decisions on LH's risk–related policies, strategies, and countermeasures. The president assumes the role of chairman, and the vice president serves as chief risk officer (CRO) of the committee. The General Risk Management Team was organized under the committee and it has designated the heads of divisions, team managers, and risk response staff as risk managers to support a prompt response to risks. Meanwhile, in crisis situations, the Crisis Management Division conducts analysis and plans countermeasures to monitor the status.

**Risk Council** | To manage risks effectively in line with changes in the management environment, we established the Risk Council. The Risk Council consists of five divisions, including the Planning & Coordination Office, to operate the Integrated Risk Management System under the Future Innovation Office.

#### Types of Risks

LH classifies risks into five categories: risk, competition, business, finance, and organization.

#### (Management Plans by Risk Type)

Political Risk	Competition Risk	Business Risk	Financial Risk	Organizational Risk
Limit on public housing land sales due to concern on excess housing provision	Intensified competition with local public companies due to expansion of local government's authority	Increased safety hazards (i.e. earthquakes)	Possibility of loss followed by profitability decrease	Government's constant attempt to reduce the work force

# Information Security System

#### **Information Security System**

As cyber security threats and the risk of hacking continue to grow each year, the government is strengthening its security policies. With the advent of new technologies such as IoT and Cloud, there is a consensus that the security level and consciousness should be improved. In keeping with these changes in the security environment, LH has established a mid—to long—term information protection strategy that aims to build a future—oriented information security system based on 4th Industrial Revolution principles.

#### (Information Security System)

Objective	Building a Future–Oriented Information Security System based on 4th Industrial Revolution Principles						
Strategy	Information Security Management System	Security Incidents Prevention and Response	Information Security Environment for Communication and Consensus				
Goals	Strengthen security system     Establish ICBM security management system (IoT, cloud, big data, mobile)	Strengthen response system for security incidents     Enhance system and network security     Enhance management of critical data security	Enhance human security management     Enhance privacy				
Tasks	Improve the status of the information security organization     Collecting, managing, using and analyzing personal information     7 items, including an integrated asset management system	Advanced information backup system     Advanced intelligent continuous attack response system     9 items, including network structure improvement	Spread security consciousness     Pitems, including external security management				

#### **Information Security Activities**

#### **Cyber Security Activities**

LH has carried out a range of security activities under the slogan of "Happy Virus if you follow the security policy, Hacking Virus if you don't". We expanded our protection activities to include 9 server vulnerability detections and 75 simulated website hacking. In addition, we operated 11,000 detection policies of the National Intelligence Service (NIS) and the Ministry of Land, Infrastructure and Transport, developed 69 LH security detection policies, and detected and blocked 537 cyberattacks. This is 77% more activity in this area than in 2016. We introduced a patch management system to strengthen security infrastructure and update various security functions on a one–stop basis in order to quickly respond to attacks exploiting vulnerabilities. In addition, the system's ability to create a secure area within the storage has been enhanced to ensure stability

against external leakage of internal data. We also established a reward system based on the results of our partners' security checks on a quarterly basis.

#### Strenghten Privacy Protection Activities

LH is leading data democracy through strengthening our privacy protection activities. To this end, we have upgraded our system operation and designated a specific person in charge of privacy protection to raise the level of protection.

#### 〈Privacy Protection Activities〉

Classification	Unit		
Advanced System Operation	Identification and classification of personal information assets for data protection, disclosure, and recycling     Automatic display of safety information warning text when creating a personal information document     Automatic personal information system block when it is not used for a certain period of time settings reflected in 37 personal information processing systems (with 27 million pieces of personal information)     Encryption control for personal information movement and storage is mandatory for all systems.		
Strengthened Management Efforts	Publication of Privacy Protection FAQ and Casebook     Establishment of Privacy Protection System Crisis Response Manual and Cryptographic Key Management Manual		
Designation of Responsible Person	Upgrade authorization to Chief Privacy Officer (CPO)     Designate privacy officers and encourage compliance with guidelines		

#### (2017 Cyber Infringement)







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## Independent Assurance Statement



# LRQA Independent Assurance Statement

#### Relating to Korea Land & Housing Corporation's 2018 Sustainability Report

This Assurance Statement has been prepared for Korea Land & Housing Corporation in accordance with our contract but is intended for the readers of this Report.

#### Terms of engagement

Lloyd's Register Quality Assurance (LRQA) was commissioned by Korea Land & Housing Corporation (LH) to provide independent assurance on its 'Sustainability Report 2018' ("the report") against the assurance criteria below to a limited level of assurance using LRQA's verification procedure. LRQA's verification procedure is based on current best practise, is in accordance with ISAE 3000 and uses the principles of AA1000AS (2008) – inclusivity, materiality, responsiveness and reliability of performance data.

Our assurance engagement covered LH's operations and activities in Korea and specifically the following requirements:

- Confirming that the report is in accordance with:
- GRI Standards1: Core option
- Evaluating the accuracy and reliability of data and information for only the selected indicators listed below:
- GRI 200 (Economic): 201-1, 203-1, 203-2, 205-2
- GRI 300 (Environmental): 302-1, 303-1, 303-3, 305-1, 305-2
- GRI 400 (Social): 401-1, 401-3, 404-2, 404-3, 412-2, 413-1, 413-2, 416-1, 418-1

Our assurance engagement excluded the data and information of LH's suppliers, contractors and any third-parties mentioned in the report.

LRQA's responsibility is only to LH. LRQA disclaims any liability or responsibility to others as explained in the end footnote. LH's responsibility is for collecting, aggregating, analysing and presenting all the data and information within the report and for maintaining effective internal controls over the systems from which the report is derived. Ultimately, the report has been approved by, and remains the responsibility of LH.

#### LRQA's Opinion

Based on LRQA's approach nothing has come to our attention that would cause us to believe that LH has not, in all material respects:

- · Met the requirements above
- Disclosed accurate and reliable performance data and information as all errors or omissions identified during the assurance engagement were corrected
- Covered all the issues that are important to the stakeholders and readers of this report.

The opinion expressed is formed on the basis of a limited level of assurance and at the materiality of the professional judgement of the verifier.

Note: The extent of evidence–gathering for a limited assurance engagement is less than for a reasonable assurance engagement. Limited assurance engagements focus on aggregated data rather than physically checking source data at sites. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

#### LRQA's approach

LRQA's assurance engagements are carried out in accordance with our verification procedure. The following tasks though were undertaken as part of the evidence gathering process for this assurance engagement:

- Assessing LH's approach to stakeholder engagement to confirm that issues raised by stakeholders were captured correctly. We did this through reviewing
  documents and associated records.
- Reviewing LH's process for identifying and determining material issues to confirm that the right issues were included in their Report. We did this by benchmarking reports written by LH and its peers to ensure that sector specific issues were included for comparability. We also tested the filters used in determining material issues to evaluate whether LH makes informed business decisions that may create opportunities that contribute towards sustainable development.

1 https://www.globalreporting.org

Independent Assurance Statement

- Auditing LH's data management systems to confirm that there were no significant errors, omissions or mis-statements in the report. We did this by reviewing the
  effectiveness of data handling procedures, instructions and systems, including those for internal verification. We also had conference calls with those key people
  responsible for compiling the data and drafting the report, and reviewed supporting evidence made available by LH.
- Checking that the GRI Content Index allows stakeholders to access sustainability indicators.

#### Observations

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Further observations and findings, made during the assurance engagement, are:

· Stakeholder inclusivity:

We are not aware of any key stakeholder groups that have been excluded from LH's stakeholder engagement process.

· Materiality:

We are not aware of any material issues concerning LH's sustainability performance that have been excluded from the report. It should be noted that LH has established extensive criteria for determining which issue is material and that these criteria are not biased to the company's management.

- Responsiveness
- LH is in the phase of developing its road map and strategies to address comprehensive human rights issues. We expect that LH establishes advanced human rights management and reports its detailed approaches on human rights in the near future.
- Reliability:

LH's selected indicators are well defined and regularly reported to relevant government agencies.

#### LRQA's standards, competence and independence

LRQA implements and maintains a comprehensive management system that meets accreditation requirements for ISO/IEC 17021 Conformity assessment – Requirements for bodies providing audit and certification of management systems that are at least as demanding as the requirements of the International Standard on Quality Control 1 and comply with the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants.

LRQA ensures the selection of appropriately qualified individuals based on their qualifications, training and experience. The outcome of all verification and certification assessments is then internally reviewed by senior management to ensure that the approach applied is rigorous and transparent.

This verification engagement is the only work undertaken by LRQA for LH and as such does not compromise our independence or impartiality.

Signed Dated: 21st May 2018

Tae-Kyoung Kim

LRQA Lead Verifier

On behalf of Lloyd's Register Quality Assurance Limited

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#### LROA reference: SEO00000246

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# **GRI Content Index**

#### Universal Standard

GRI Standard	Disclosure	Page	Remarks
Organizational Profi	le		_
102-1	Organization Name	6	
102-2	Representative Brand, Product, or Service	6	
102-3	Location of Headquarters	6	
102-4	Business Area	6~7	
102-5	Characteristics and Legal Form of Ownership Structure	6	
102-6	Target Markets	6~7	
102-7	Scale of the Reporting Organization	6~7	
102-8	Information about Employees and Workers	6, 40	
102-9	Characteristics of Supply Chain related to Key Activities, Products, or Services of the Reporting Organization	50~51	
102-10	Material Changes in Scale, Structure, or Ownership	-	No Material Change
102-11	Principles of Proactive Prevention, and Description of Approaches	60~1, 56	
102-12	External Initiatives	67	
102-13	Membership in the Below–Listed Associations	68	
Strategy			
102-14	CEO's Message	5	*
Ethics and Integrity			
102-16	Missions, core values, code of conduct, and principles prepared internally in relation to economic, environmental, and social performance and activities	45~46	
Governance			
102-18	Governance	59	
102-23	Chairman of the Highest Decision–Making Body	59	
Stakeholder Engage	ment		
102-40	Stakeholder Groups	20~21	
102-41	Ratio of Employees Subject to Collective Bargaining	-	70.4%
102-42	Basis for Identification and Selection of Stakeholders with whom to Engage	20~21	
102-43	Status of Stakeholder Engagement Methods	20~21	
102-44	Key Topics and Concerns Raised through Stakeholder Engagement	20~21	
Reporting Practices			
102-45	List of all entities included in the consolidated financial statements or equivalent documents	-	Audit Report p.15
102-46	Aspect boundary outside the organization	18~19	
102-47	Materiality aspects verified in the process for defining report contents	18~19	
102-48	Cause and effect of re-description of information presented in the previous reports	-	No re-description
102-49	Significant changes in report scope, boundary, or measurement methods from the previous report period	-	No significant changes in report
102-50	Reporting period	About this report	
102-51	Latest year of the report published	About this report	
102-52	Reporting frequency	About this report	
102-53	Contact for questions concerning the report and its contents	About this report	
102-54	The "in accordance" option the company has chosen (Core vs. Comprehensive)	About this report	
102-55	The GRI content index for the chosen option	65~66	
102-56	Reference to the External Assurance Report if the report has been externally assured	63~64	

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#### Topic-Specific Standards

Topic	GRI Standard	Disclosure		Page	Remarks
Economic (GRI 200	))	_			
Economic	GRI 103: Management	103-1	Explanation of Important Topics and their Boundaries	24	
Performance	Approach 2016	103-2	Management Approach and its Components	24	
		103-3	Management Approach Assessment	25	
	GRI 201: Economic Performance 2016	201-1	Direct Economic Value Generated and Distributed	26~35	
Indirect Economic	GRI 103: Management	103-1	Explanation of Important Topics and their Boundaries	24	
Impacts	Approach 2016	103-2	Management Approach and its Components	24	
		103-3	Management Approach Assessment	25	
	GRI 203: Indirect Economic Impacts 2016	203-1	Development and Impact of Infrastructure Investments and Services Supported	38~39	
		203-2	Significant Indirect Economic Impacts, Including the Extent of Impacts	38~39	
Anti-Corruption	GRI 103: Management	103-1	Explanation of Important Topics and their Boundaries	24	
	Approach 2016	103-2	Management Approach and its Components	24	
		103-3	Management Approach Assessment	25	
	GRI 205: Anti-Corruption 2016	205-2	Announcements and Training on Anti-Corruption Policies and Procedures	45~46	
Environmental (GR	1 300)				
Energy	GRI 103: Management	103-1	Explanation of Important Topics and their Boundaries	24	<del>.</del>
	Approach 2016	103-2	Management Approach and its Components	24	
		103-3	Management Approach Assessment	25	
	GRI 302: Energy 2016	302-01	Energy Consumption within the Company	57	
Water	GRI 103: Management	103-1	Explanation of Important Topics and their Boundaries	24	
	Approach 2016	103-2	Management Approach and its Components	24	
		103-3	Management Approach Assessment	25	<u> </u>
	GRI 303: Water 2016	303-1	Water Intake Volume, by Source	57	
		303-3	Recycling and Reuse of Water	57	
Emissions	GRI 103: Management	103-1	Explanation of Important Topics and their Boundaries	24	
	Approach 2016	103-2	Management Approach and its Components	24	
		103-3	Management Approach Assessment	25	
	GRI 305: Emission 2016	305-1	Direct Greenhouse Gas (GHG) Emissions (Scope 1)	57	Excluding Energy Business Division
		305-2	Indirect Greenhouse Gas (GHG) Emissions (Scope 2)	57	Excluding Energy Business Division

#### Topic-Specific Standards

**GRI Content Index** 

Topic	GRI Standard	Disclosure		Page	Remarks
Social (GRI 400)		<del>-</del>			T
Employment	GRI 103: Management	103-1	Explanation of Important Topics and their Boundaries	24	
	Approach 2016	103-2	Management Approach and its Components	24	
		103-3	Management Approach Assessment	25	
	GRI 401: Employment 2016	401-1	Total number and rates of new employee hires and employee turnover by age group, gender and region	40	
		401-3	Return to work and retention rates after parental leave, by gender	43	Not managed for return to work and retention rates after parental leave, by gender
Training and	GRI 103: Management	103-1	Explanation of Important Topics and their Boundaries	24	
Education	Approach 2016	103-2	Management Approach and its Components	24	
		103-3	Management Approach Assessment	25	
	GRI 404: Training and Education 2016	404-2	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings	41~42	
		404-3	Percentage of employees receiving regular performance and career development reviews	-	81.30% (Except for workers with less than 180 days, dispatched workers, new recruits, and 2017 retirees)
Human Rights	GRI 103: Management Approach 2016	103-1	Explanation of Important Topics and their Boundaries	24	
Assessment		103-2	Management Approach and its Components	24	<u> </u>
		103-3	Management Approach Assessment	25	
	GRI 412: Human Rights Assessment 2016	412-2	Employee training on human rights policies and procedures related to business	45	
Local Communities	GRI 103: Management Approach 2016	103-1	Explanation of Important Topics and their Boundaries	24	
		103-2	Management Approach and its Components	24	
		103-3	Management Approach Assessment	25	
	GRI 413: Local communities 2016	413-1	Percentage of operations with implemented local community engagement, impact assessments, and development programs	52, 56	
		413-2	Workplaces where there are significant substantial / potential negative impacts on communities	56	
Customer Health	GRI 103: Management	103-1	Explanation of Important Topics and their Boundaries	24	
and Safety	Approach 2016	103-2	Management Approach and its Components	24	
		103-3	Management Approach Assessment	25	
	GRI 416: Customer Health and Safety 2016	416-1	Percentage of significant product and service categories for which health and safety impacts are assessed for improvement	49	
Customer Privacy	GRI 103: Management	103-1	Explanation of Important Topics and their Boundaries	24	
	Approach 2016	103-2	Management Approach and its Components	24	-
		103-3	Management Approach Assessment	25	
	GRI 418: Customer Privacy 2016	418-1	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data	61	

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# ISO 26000 / UNGC

#### ISO26000

International Organization for Standardization (ISO) provides guidance on how organizations can incorporate their awareness in social reasonability, the stakeholders' involvement, key topics and issues in their business practice in ISO 26000. At LH, we manage the key topics and issues on social responsibility according to ISO 26000.

Key Topic	Issue	Article in ISO 26000
Organizational Governance	Decision-making processes and structure	6.2.3
Human Rights	Due diligence	6.3.3
	Human rights risk situations	6.3.4
	Avoidance of complicity	6.3.5
	Resolving grievances	6.3.6
	Discrimination and vulnerable groups	6.3.7
	Civil and political rights	6.3.8
	Economic, social, and cultural rights	6.3.9
	Fundamental principles and rights at work	6.3.10
Labor Practices	Employment and employment relationships	6.4.3
	Conditions of work and social protection	6.4.4
	Social dialogue	6.4.5
	Health and safety at work	6.4.6
	Human development and training in the workplace	6.4.7
Environment	Prevention of pollution	6.5.3
	Sustainable resource use	6.5.4
	Climate change mitigation and adaptation	6.5.5
	Protection of the environment, biodiversity, and restoration of natural habitats	6.5.6

Key Topic	Issue	Article in ISO 26000
Fair	Anti-corruption	6.6.3
	Operating Practices	6.6.4
	Fair competition	6.6.5
	Promoting social responsibility in the value chain	6.6.6
	Respect for property rights	6.6.7
Consumer Issues	Fair marketing, factual and unbiased information and fair contractual practices	6.7.3
	Protecting consumer's health and safety	6.7.4
	Sustainable consumption	6.7.5
	Consumer service, support, and complaint and dispute resolution	6.7.6
	Consumer data protection and privacy	6.7.7
	Access to essential services	6.7.8
	Education and awareness	6.7.9
Community	Community involvement	6.8.3
and Development	Education and culture	6.8.4
Development	Employment creation and skills development	6.8.5
	Technology development and access	6.8.6
	Wealth and income creation	6.8.7
	Health	6.8.8
	Social investment	6.8.9

#### **UN Global Compact**

As a member of the UN Global Compact since October 2005, LH reports its fulfillment of the Global Compact's ten principles including four essential areas: human rights, rule of labor, environment and anti-corruption.

Classification		Indicators	Practices by LH	
Human rights	Principle1.	Businesses should support and respect the protection of internationally proclaimed human rights; and	Creation and operation of basic principle on human rights protection (ethics charter)	
	Principle2.	make sure that they are not complicit in human rights abuses.		
Rule of Labor	Principle3.	Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;	Fostering communication channel between labor and management	
	Principle4.	the elimination of all forms of forced and compulsory labour;	Labor and management collaboration program	
	Principle5.	the effective abolition of child labour; and	Expansion of education for labor and management	
	Principle6.	the elimination of discrimination in respect of employment and occupation.	Observation of Labor Standards Act and employment rules	
Environment	Principle7.	Businesses should support a precautionary approach to environmental challenges;	Establishment of a system to reduce greenhouse gas emission	
	Principle8.	undertake initiatives to promote greater environmental responsibility; and	Purchase of "Green Products"	
	Principle9.	encourage the development and diffusion of environmentally friendly technologies.	Building eco-friendly green cities	
Anti-corruption	Principle10.	Businesses should work against corruption in all its forms, including extortion and bribery.	Creation and operation of Ethical Standards and strengthened internal control system	

# Awards / Membership

#### **Awards**

Date	Organization	Award	Date	Organization	Award
2017	Ministry of Public Administration and Security	Honorary institution for the Pohang earthquake	2017	Ministry of Environment, Ministry of Land, Infrastructure and Transport	Excellent Prize at Utilization of Recycled Aggregate
2017	Job Committee of the Ministry of	Grand prize at the Public employment job contest (Change a temporary position to a permanent position)	2017	Korea Concrete Institute	Technology Prize by Korea Concrete Institute
	Strategy and Finance		2017	Hankyung TV	Prize by Minister of Land, Transport and Maritime Affairs (Representative apartment in Korea)
2017	Social Responsibility & Management Quality Institute	Social Responsibility Management Quality Conventions – Prize of the Deputy prime minister for	2016	Minister of Trade	Ministerial Commendation, Contribution in Free Economic Zone
		economic affairs	2016	Ministry of Land, Infrastructure and Transport	2016 Nationwide VE Contest- First Prize (Public Organization Category)
2017	National Transportation Committee of the National Assembly	Cooperate with Activities of National Assembly– Ministerial Commendation	2016	Society of Korea Industrial and Systems	Engineering Contributed in development of Society of Korea Industrial and Systems Engineering – Appreciation Plaque
2017	Ministry of Land, Infrastructure and	Participation prize for Creative Innovation BP (Public	2016	World Bank	KGGTF PARTNER AWARD – Appreciation Plaque
2017	Transport  Ministry of Employment and Labor	shopping arcade)  'Blind recruit without prejudice' competition	2015	Ministry of Land, Infrastructure and Transport	Contribution in project approval of Happy Housing— Ministerial Commendation
2017	Dong-A Ilbo	Grand Prize at Good Brand Award (Onnara Portal)	2015	Ministry of Land, Infrastructure and	Contributed to development of Land and Transport
2017	Chosun Ilbo	Grand Prize at App Awards Korea (Onnara Portal)	0045	Transport	operation – Ministerial Commendation
2017	Architectural Institute of Korea	Grand Prize at Korea Smart Architecture City	2015	Ministry of Land, Infrastructure and Transport	Contribution in completion of Jeju Innovation City– Ministerial Commendation
2017	Maeil Business Newspaper	Grand Prize at National Brand Smart City	2015	Ministry of Land, Infrastructure and Transport	Contribution in regeneration of living conditions in vulnerable regions in cities (Saetteul Village Project)—
2017	Ministry of Gender Equality and Family	Certified as family-friendly excellent institution		папэроп	Ministerial Commendation
2017	Ministry of Employment and Labor	Excellent Gender Employment Equality	2015	The Herald Business	2015 Herald Business Green Housing Culture Award– Grand Prize (Ministerial Award)
2017	Ministry of Public Safety and Security	Minister's Award at Facilities Safety	2015	The Korea Economic Daily	2015 H2 Hankvung Residential Culture Award-
2017	Ministry of Commerce, Industry and	Minister's Prize at Energy Efficiency category		. <u> </u>	Customer Satisfaction Category Grand Prize
2017	Ministry of Science and ICT	Special Award at K-ICT Information Protection Award	2015	The Hankook-Ilbo	Green Housing Award- Green Smart Grand Prize(Hankook-Ilbo Presidential Award)
2017	Korea Commission for Corporate	Achievement Performance Award at win-win growth	2015	Ministry of Environment	2015 Korean Eco-Friendly Practice Award-
2017	Partnership	category		Aju Business Daily	Ministerial Commendation 2015 Aju Business Daily Housing Construction
2017	Ministry of Land, Infrastructure and	National Land Transport Training Contest	2015	Aju business baity	Award- Rental Housing Category Grand Prize
	Transport		2015	UN-HABITAT	Asian Urban Landscape Award
2017	Ministry of Land, Infrastructure and Transport	2017 Nationwide VE Contest– First Prize (Public Organization Category)	2015	The Asia Economy Daily	The 10th Asian Construction Award – Housing Culture (Happy) Category Grand Prize
2017	Korea Ecological Restoration Association	First Prize at Natural Environment Grand Prize	2015	Moneytoday	2015 Korean Housing Service Award – Community Category First Prize

#### **Membership Status**

KMA (Korea Management Association)	The Korean Institute of Power Electronics	Korea Occupational Nursing Association	Korea Computational Structural Engineering Institute
Gyeongsangnam-do Museum Council	Jinju Chamber of Commerce	Korea Industrial Management System Society	Korean Landscape Society
Korean Nurses Association – Gyeonggi Nursing Society	Anti-Corruption and Transparency Pact Practice Network	Korea Industrial Technology Association	The Korean Institute of Landscape Architecture
Korea Construction Promotion Association	Korea Audit Association	Korea Productivity Center	The Korean Institute of Illumination and Electrical Installation Engineers
Architectural Institute of Korea	Korean Society of Steel Construction	Korea Ecological Restoration Association	The Korean Housing Association
Korean Society of Transportation	Korea Development Institute	Korea Institute of Ecological Architecture and Environment	Korean Association for Housing Policy Studies
Korea Planners Association	Korea Institute of Construction Management	Korea Equipment Technology Association	Korean Geotechnical Society
Korea Emergency Planning Association	Korea Institute of Landscape Architecture	Korea Fortress Association	Korea Institute for Local Administration
Korea Industrial Safety Association–West Gyeongnam Branch	Korea Public Authority Audit Council	Korea Fire Safety Association–Gangwon Branch	Earthquake Engineering Society of Korea
Korea Industrial Safety Association–Daejeon Branch	Korean Public Enterprises Association (NF)	Korea Fire Safety Association–Gyeonggi Province Branch	Korea Collective Energy Association
Korea Industrial Safety Association–North Chungnam Branch	Korea Structural Diagnosis and Maintenance Engineering Association	Korea Fire Safety Association–Gyeongnam Branch	Korea Concrete Institute
Korean Society of Water and Wastewater	Korean Society of Road Engineers	Korea Fire Safety Association–Daejeon & Chungnam Branch	Korea Land Compensation Commission
The Society of Air–Conditioning and Refrigeration Engineers of Korea	Korea Road Association	Korea Fire Safety Association–Seoul Branch	Korea Statistics Promotion Institute
Korean Institute of Electrical Engineers	Korea Library Association	The Korean Society for Noise and Vibration Engineering	Korea Institute of Public Administration
Korea Electric Association	Urban Design Institute of Korea	Korea Water Resources Association	The Korean Society for Environmental Restoration Technology
Korean Society of Civil Engineers	Urban Regeneration Society of Korea	Korea Smart Grid Association	Korea Environment and Ecology Association
Korean Society of Environmental Engineers	Korea Ritz Association	Korea Institute of Safety	International Contractors Association of Korea
Urban Renewal Strategy Forum	Korea Museum Association	Korea Energy Engineer Association	ULI (Urban Land Institute)
UN Global Compact (uncc)	Korean Society of Disaster Prevention	Korea Institute of Electrical Engineers	
Applied Ecological Engineering Society	Korean Association of Disaster Prevention	Korea Power Exchange	

# Harmonizing Human Beings with Nature LH Sustainability Report 2018



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