

2019

2019

Sustaining Excellence





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Boarding Pass



# Introduction



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"Piha Beach" taken in Auckland, New Zealand by Kang Young-Soo, a Merit Prize winner at the 25th Korean Air Travel Photo Contest

## CEO Message

Distinguished stakeholders,

First of all, I would like to express my gratitude to all the stakeholders in our enterprise for your continued interest and support.

Despite rising demand for air travel, the business environment in 2018 proved challenging due to fierce competition in the airline industry combined with rising oil prices and interest rates. Korean Air responded by launching a joint venture with Delta Air Lines and relocating to the newly-opened Incheon Airport Terminal 2. This contributed to the achievement of record-high sales of KRW 12.6555 trillion and KRW 667.4 billion in operating profit.

This year marks the 50th anniversary of the establishment of Korean Air. We would like to take this opportunity to make a leap forward by further strengthening our business fundamentals. As uncertainties such as the future of interest rates and a sluggish domestic economy are expected to continue this year, we will establish a sustainable business structure targeting KRW 13.230 trillion in sales and KRW 1 trillion in operating profit while ensuring flawless operational safety.

**“Entrepreneurs are evaluated based not on how they made money, but on how they spent it in valuable ways. Profits made by companies must be returned to society.” - Cho Choong-Hoon**

We are clearly aware that returning profits to society, contributing to local communities, and promoting transparent corporate governance all serve as driving forces for sustainable growth.

As we have done over the past five decades, we will sustain our efforts at social contribution in reflection of the characteristics of the aviation industry and achieve shared growth with local communities. Social and environmental values will be considered when pursuing business growth. To this end, we will commit ourselves to minimizing greenhouse gas emissions by transitioning to eco-friendly and high-efficiency aircraft and by improving our fuel management process. Furthermore, we will ensure transparent and sound corporate governance and meet all social requirements.

Distinguished stakeholders,

We have been able to continue to grow over the last five decades thanks to your unwavering support. As we celebrate the 50th anniversary of Korean Air, 2019 will serve as an opportunity to prepare ourselves for building a company for the next 50 years. To this end, Korean Air and its 200,000 employees will do their utmost to promote the company's growth and development and raise its international profile.

Thank you.



August 2019  
Chairman & CEO Korean Air  
Cho Won-Tae

A handwritten signature in black ink that reads "Walt Cho".



# Management Philosophy



# Management Philosophy

## Enhancing customer loyalty with highest possible customer satisfaction

- Taking a comprehensive and systematic approach toward customers
- Responding promptly to changing customer needs
- Maximizing customer value through Management by Wandering About (MBWA) practices

## Adhering to standards and principles

- Establishing globally-recognized standards and principles
- Pursuing standard- and principle-based flexibility in business
- Eliminating shortcuts and inefficiency in business operations

## Creating an innovative and change-embracing corporate culture

- Encouraging to have a progressive and aspiring mind
- Creating an organizational culture that embraces change
- Pursuing future-oriented business reform by focusing on core competencies



## Operational management based on expertise and autonomy

- Promoting mutual respect of expertise in different fields
- Making a system-based decision
- Building a harmonious atmosphere for creative solutions

## Developing future growth engines with competent human resources

- Attracting the best and brightest from around the globe
- Continuing a bold investment in nurturing talent
- Creating a corporate culture that pairs individual capacity-building with organizational growth





## Company Overview

### Profile

Established in 1969 and celebrating its 50th anniversary this year, Korean Air has grown into a global carrier with 166 aircraft as of the end of 2018. In addition to passenger and cargo transportation services, its business scope has expanded to now range from in-flight meals and duty-free shopping to the aerospace industry, including aircraft parts development and maintenance.

(as of Dec 31, 2018)

Company name	Korean Airlines Co., Ltd.
Headquarters	260 Haneul-gil Gangseo-gu, Seoul, Korea (Gonghangdong 1370)
Phone number	02-2656-7114
Website	<a href="http://www.koreanair.com">http://www.koreanair.com</a>
Business areas	Passenger & cargo transportation, aerospace, catering services and in-flight sales
Sales	KRW 12.6555 trillion
No. of employees	20,654 (locally-hired employees included)
Air fleet	166 aircraft
Routes	124 cities in 44 countries
Revenue passengers carried in 2018	26.82 million
Revenue freight carried in 2018	1.61 million tons
Subsidiaries	See the disclosures by Korean Air at <a href="http://dart.fss.or.kr">http://dart.fss.or.kr</a>

### Air Fleet (unit: aircraft)

Aircraft model	Passenger	Cargo
A380-800	10	-
B747-8I	10	-
B747-400	2	4
B747-8F	-	7
B777-200/300/300ER	42	-
B777F	-	12
A330-200/300	29	-
B787-9	9	-
B737-800/900/900ER	32	-
A220-300	9	-
<b>Q'ty: 166</b>	<b>143</b>	<b>23</b>

### Profits and transportation in 2018

#### Profits (unit: KRW 100 million)

<b>Total</b>	126,555
<b>Flight operations</b>	107,900
<b>Ancillary</b>	11,161
<b>Other businesses</b>	7,494

#### Transportation (unit: 10K passengers/10K tons)

	Passenger	Cargo
<b>International routes</b>	1,992	154
<b>Domestic routes</b>	690	7
<b>Total</b>	<b>2,682</b>	<b>161</b>

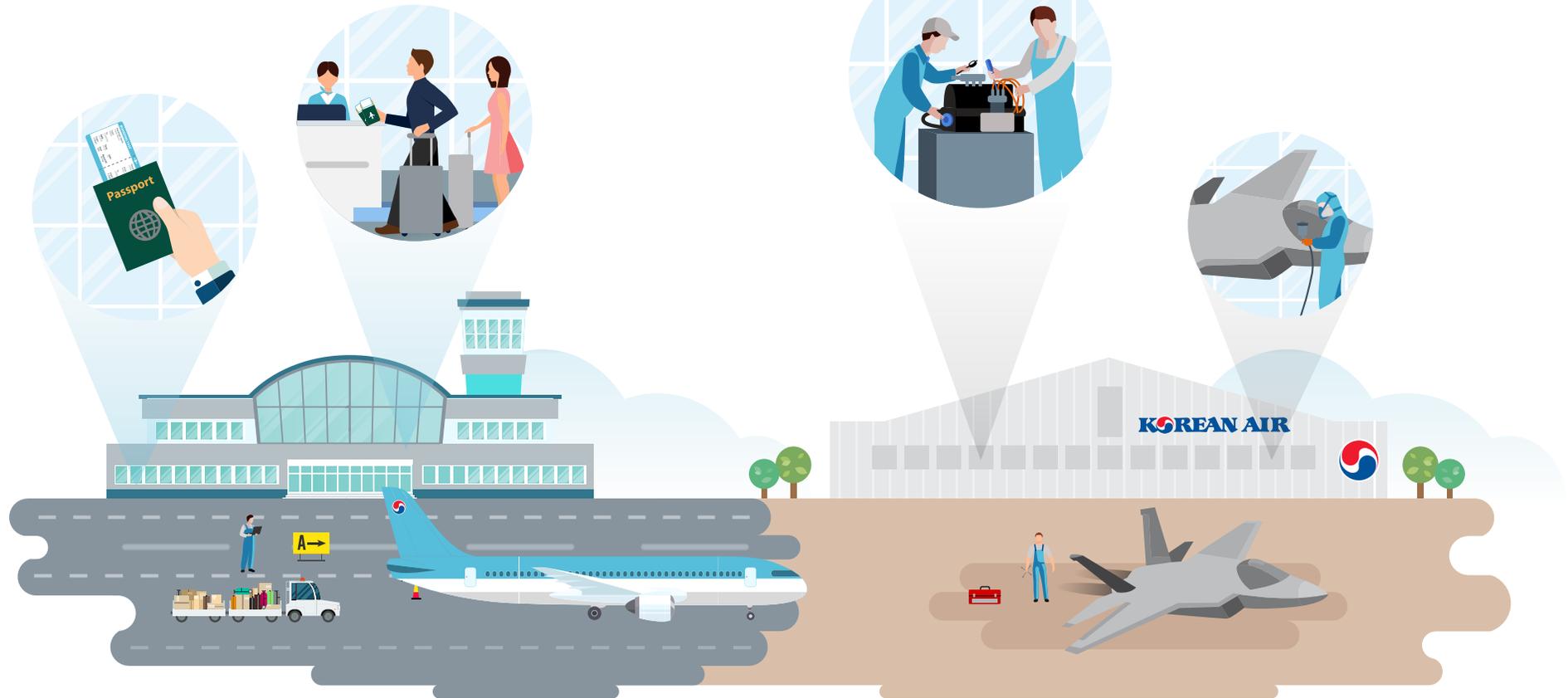
\* based on separate financial statements



## Key Businesses

### Air transport business

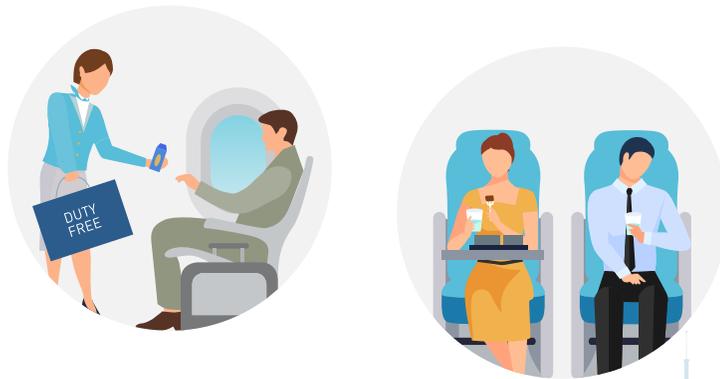
As of the end of 2018, Korean Air owns a total of 166 aircraft and is operating routes between 13 cities in Korea and 111 cities in 43 countries worldwide, carrying 26.82 million passengers and 1.61 million tons of cargo annually. As a result of our efforts at increasing demand, including a joint venture with Delta Air Lines and relocation to Incheon Airport Terminal 2, profit in the passenger business rose 10% over the previous year despite the challenging business environment resulting from hikes in oil prices and interest rates. Meanwhile, the cargo business saw a 7.2% profit increase year-on-year through the operation and diversification of a transport network focusing on profitability.



# Key Businesses

## In-flight meals and sales business

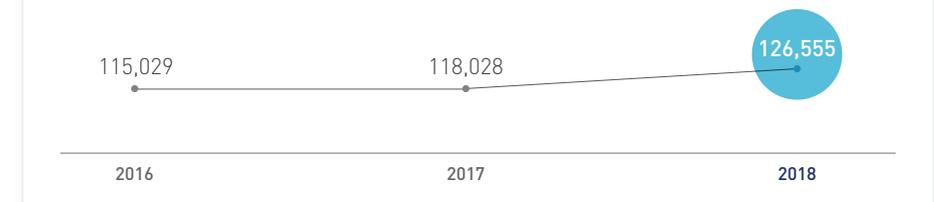
We are generating profit by operating in-flight catering that offers passengers meals that meet a range of preferences and suit diverse travel time zones. Meanwhile, in-flight duty-free shopping service is provided to passengers on our international flights. A variety of goods with strictly controlled quality are selected to meet customers' needs and ensure satisfaction.



Sales by business (unit: KRW 100 million)

	2016	2017	2018
Air transport business	103,026	107,906	117,357
Aerospace business	8,988	7,280	6,505
In-flight meals and sales business	3,015	2,842	2,693

Total



# Global Network

## Korean Air Flight Route Map

- Passenger and cargo
- Cargo-only



(As of Dec. 2018)  
**13 cities in Korea**  
**111 cities in 43 countries**  
**A total of 124 cities**  
**in 44 countries worldwide**

<b>Korea</b>	<b>13 cities</b>
Incheon, Seoul, Busan, Jeju, Gwangju, Daegu, Yeosu, Ulsan, Jinju, Gunsan, Cheongju, Wonju, Pohang	
<b>China</b>	<b>28 cities</b>
Beijing, Tianjin, Qingdao, Shanghai, Guangzhou, Xiamen, Shenyang, Wuhan, Kunming, Jinan, Weihai, Mudanjiang, Yanji, Shenzhen, Dalian, Changsha, Zhengzhou, Xi'an, Huangshan, Hangzhou, Urumuqi, Nanjing, Hefei, Nanning, Guiyang, Hong Kong, Taipei, Ulaanbaatar	
<b>Japan</b>	<b>12 cities</b>
Tokyo, Osaka, Nagoya, Fukuoka, Kagoshima, Niigata, Okayama, Sapporo, Aomori, Komatsu, Oita, Okinawa	
<b>Americas</b>	<b>19 cities</b>
Anchorage, Vancouver, Seattle, San Francisco, Los Angeles, Honolulu, Dallas, Miami, Guadalajara, Toronto, Chicago, New York, Washington D.C., Atlanta, Halifax	
<b>Europe, Middle East, CIS</b>	<b>25 cities</b>
Lima, Sao Paulo, Santiago	
<b>Southeast Asia</b>	<b>23 cities</b>
Irkutsk, Ulaanbaatar, Tashkent, Navoi, Vladivostok, Chiang Mai, Phnom Penh, Kathmandu, Hanoi, Taipei, Hong Kong, Da Nang, Manila, Cebu, Ho Chi Minh, Naha Trang, Penang, Kuala Lumpur, Singapore, Jakarta, Denpasar, Male, Colombo, Phuket, Yangon, Bangkok, Mumbai, Delhi, Dubai, Nadi, Brisbane, Sydney, Auckland, Guam, Palau	
<b>Oceania</b>	<b>4 cities</b>

### SKYTEAM

SkyTeam, a global airline alliance formed in June 2000, currently consists of 19 member airlines, including Korean Air, Garuda Indonesia, DELTA, MEA, Vietnam Airlines, SAUDIA, XIAMENAIR, AerolineasArgentinas, AERO-MEXICO, AEROFLOT, Alitalia, AirEuropa, AIRFRANCE, China Eastern, China Airlines, Czech Airlines, Kenya Airways, KLM, and TAROM.

Every day, 14,500 SkyTeam flights take off for 1,150 destinations in 175 countries. This global network allows customers multiple flight options on member airlines and wider benefits, such as earning and redeeming mileage and using airport lounges and joint services provided by all member airlines.

In addition, SkyTeam members clearly recognize the importance of corporate social responsibility, and are collaborating to promote sustainable, green corporate policies.

[See SkyTeam CSR Statement](#)





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# Our Story

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A castle harmonizing with tulips" taken in Dilbeek, Belgium by Jang Se-Eok, a Merit Prize winner at the 25th Korean Air Travel Photo Contest

# 50th Anniversary of the Establishment of Korean Air

Korean Air's path for susongbokuk (contribution to the nation through transportation)



1970's

- **April 1971** Operated trans-Pacific routes for the first time in Korea
- **October 1976** Delivered MD500, the first helicopter manufactured in Korea
- **May 1978** Established Korea Air KIAT (Korea Institute of Aeronautical Technology)



1980's

- **September 1982** Released KF-5E/F, the first fighter jet made in Korea
- **March 1988** Held the 1st attending ceremony of the Industrial College (inhouse college with programs accredited by the company)
- **August 1988** Designated as an official airline for the 1988 Olympics



1960's

- **March 1969** Established Korean Air based on the founding spirit of susongbokuk (contribution to the nation through transportation)



1990's

- **November 1991** Succeeded in the test flight of Chang-Gong 91, the first light plane prototype developed in Korea
- **December 1996** Obtained ISO14001 certification
- **February 1998** Received the Mercury Award for the development and service implementation of bibimbap from the International Flight Catering Association
- **July 1998** Transported disaster relief goods to flooded areas in Hubei Province, China (the start of global disaster relief activities by the company)



2000's

- **June 2000** Launched SkyTeam, a global airline alliance
- **May 2004** Operated the Korean Air Forest project in Mongolia to prevent desertification
- **2004** Ranked 1st in air transport volume in international cargo according to IATA's statistics
- **July 2007** Joined the UN Global Compact, upholding its Ten Principles
- **2009** Sponsored Korean language audio guide service at the world's three most famous museums



2010's

- **February 2012** Introduced B747-8F and B777F, eco-friendly freighters.
- **March 2015** Selected as an official partner of the 2018 Pyeongchang Winter Olympics
- **May 2018** Signed a joint venture agreement on trans-Pacific routes with Delta Air Lines
- **June 2018** Ranked 1st in the air passenger transport services sector for 14 consecutive years at the Global Customer Satisfaction Index (GCSI) Excellent Enterprise Awards organized by the Global Management Association
- **June 2019** Hosted the 75th IATA Annual General Meeting



# Vision 2023

Korean Air recently announced its Vision 2023 plan as a component of its mid-/long-term vision and planning for business growth. It focuses on sustainable growth and targets a 10.6% operating profit to sales ratio (KRW 1.7 trillion in operating profit) and a 395% debt-to-equity ratio.

## Passenger business strategy

### Strengthening a global network

- Utilizing the joint venture agreement with Delta Air Lines (expanding trans- Pacific routes and identifying and launching services with high profitability)
- Operating new routes and increasing supply for growth markets such as Europe and Southeast Asia
- Providing aircraft and service considering the characteristics of routes

### Improving operational efficiency

- Introducing highly-efficient new aircraft and selecting optimal airplane models considering the demand of each route
- Utilizing a next-generation passenger demand forecast system (O&D RMS) to increase profitability
- Strengthening marketing efforts with accumulated data and IT capability

### Enhancing service quality

- Offering premium service that meets customers' needs
- Promoting customer convenience utilizing customer contact channels including social media
- Upgrading IT infrastructure for service and focusing on service personnel training



## Cargo business strategy

### Enhancing efficiency in supply operation

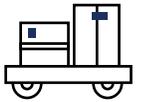
- Adopting new aircraft with high efficiency, including B777F and B747-8F (average age of aircraft: six years)
- Operating a global network connecting key destinations with high demand
- Improving profit by making full use of cargo-loading space in passenger planes

### Developing new markets with high growth potential

- Focusing on growth markets, such as Vietnam, India, Mexico and Latin America
- Expanding the scope of items with growth potential, including e-commerce products, medical supplies, fresh food, 5G telecommunication devices, and EV parts
- Strengthening marketing efforts targeting global manufacturers and traders such as Samsung, Apple and Amazon

### Improving customer service with higher operational efficiency

- Increasing customer satisfaction through quick, accurate and safe transport
- Introducing iCargo, a next-generation air cargo system (in April 2019) to enhance work process and promote customer convenience
- Expanding a network through cooperation among airlines (KE/DL JV, UPS, and FEDEX)



## Aerospace business strategy

### Civil aircraft

- Developing composite materials using carbon fiber (winning projects on high-efficiency wing structures)
- Expanding the scope of process automation for improving cost competitiveness

### Unmanned aerial vehicle (UAV)

- Establishing a system to produce division-level UAV and MUAV (Medium Altitude Unmanned Aerial Vehicle) for military purpose
- Developing technologies for autonomous and swarm flight, stealth, and hybrid engines

### Performance improvement

- Increasing the number of performance improvement projects utilizing an existing platform
- Increasing technological strength through global alliance and strategic partnerships



## In-flight meals and sales business strategy

### In-flight meals

- Ensuring the quality and safety of in-flight meals to strengthen global competitiveness
- Developing a variety of menu choices and services to enhance customer satisfaction
- Continuing efforts at developing menu items for wellbeing that meet customers' needs

### In-flight sales

- Analyzing sales data and markets to develop highly-preferred products
- Creating a product portfolio focusing on high profitability
- Implementing target marketing strategy to identify potential demand



## Sustainable Value Creation

### Transition to a cloud-based IT system

In this era of digital transformation, the aviation industry must quickly respond to change in order to ensure its survival. In response, we became the first among domestic conglomerates and international airlines to being a transition to the cloud. In November 2018, we signed a data center outsourcing contract with LG CNS and Amazon Web Services.

In May 2019, the transition to a next-generation data center and the first phase of cloud deployment were completed. This deployment, which will be conducted in three phases through 2021, will allow stable data operation and support our efforts at digital innovation.

The cloud environment allows us to quickly apply digital technologies such as AI, big data analysis, and IoT to the aviation industry, based on which we will provide future-oriented services that improve customer satisfaction.



### Introduction of a next-generation passenger demand forecast system

Seats are the time-and-space limited products of airlines. To maximize profits under these circumstances, most airlines apply a revenue management system (RMS) that supports optimal seat allocation by price-through-demand forecasting. In March 2019, we introduced our O&D RMS (Origin & Destination RMS) that forecasts demand by considering the origins and destinations of passengers, calculates the value of the itinerary, and allocates optimal seats. This new system allows us to manage seats from the perspective of the overall network and optimize profit. With the introduction of the new system, we will be able to not only make detailed forecasts and perform value-based seat management in a rapidly-changing market environment, but also strengthen our demand forecasting and operational capabilities. The system is expected to support our efforts at maximizing profit, enhancing market competitiveness, and achieving sustainable growth.

### Introduction of a next-generation air cargo system

To drive change and enhance customer service quality in the increasingly competitive air cargo industry, we have implemented a next-generation air cargo system based on a cloud platform since April 2019.

This new system allows consistent service provision by integrating the sales, reservation, and transport segments. A wide range of customized information is being provided through strengthened monitoring functionality. Cargo transport status can be provided via email or text messaging upon the request of customers.

User convenience functionalities will be gradually upgraded by March 2020, and AI-based RMS solutions will be phased in.

Through this system, we will seek business growth opportunities and develop customer service in accordance with shifts in the business environment, solidifying our position as a leader in the global air cargo industry.





## Sustainable Value Creation

### Further strengthening of KE-DL joint venture

Since the launch of Korean Air (KE) and Delta Air Lines (DL) Joint Venture (JV) on May 1, 2018, Korean Air and Delta Air Lines have continued joint efforts to enhance partnerships and to improve competitiveness.

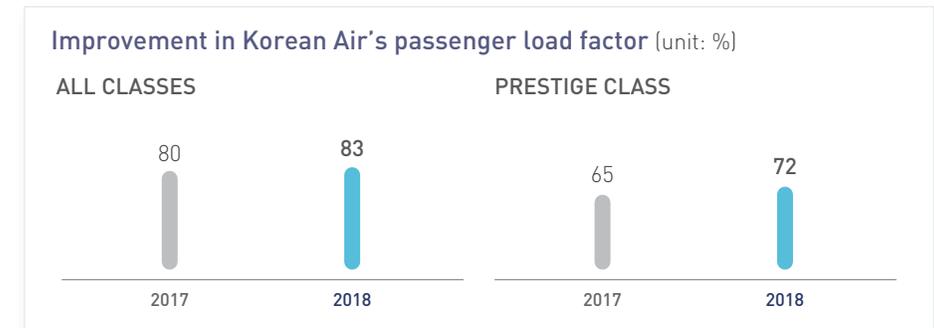
Area of JV Cooperation	Goal
Commercial Synergy	Build JV commercial platform integrating network, sales, pricing, and marketing
Seamless customer experience	Pursue seamless service across JV flights regardless of KE or DL operating flight
Joint Venture culture	Foster JV cooperation by promoting working group level partnership and sharing best practice

### Creating commercial Synergy through deepening cooperation

Korean Air and Delta Air Lines have continued strengthening partnerships to lay the foundation for deepening joint commercial activities in areas such as network, pricing, revenue management, sales, and marketing, etc. Within less than a year from the implementation of the JV, both Korean Air and Delta have successfully launched new markets (KE Boston, DL Minneapolis), expanding JV presence in the transpacific market.

In addition, the JV has contributed to improved customer welfare by offering an optimized schedule through a time-channel separation of overlapping schedule of Korean Air and Delta in Atlanta and Seattle. Delta moved Atlanta departure time to night time and both airlines also separated Incheon departure time for Seattle route. Time channel differentiation allows the JV to provide more schedule options for the customers.

Such continuing efforts to strengthen JV commercial cooperation have translated growing synergy into improving performance. In 2018, the annual average passenger load factor of Korean Air rose to 83%, up by 3%p on a year over year basis. In the case of business-class load factor, improvement is much greater, resulting in 7%p year over year growth to 72% load factor in 2018. Further, deepening cooperation in the 1st year of the JV increased both revenue and the Revenue per Available Seat Kilometers (RASK).



### Seamless customer service is the key to enhancing the JV strength

In another area of JV partnerships, Korean Air and Delta have worked together to monitor and improve the JV customer service. Reducing the minimum connection time in JV hub airports has contributed to the ease of transit. Co-locating check-in counters to Delta Zone in Seattle Tacoma International Airport has enabled the JV to provide seamless service. To deliver seamless service in every journey point, Korean Air and Delta are continuing joint efforts to grow synergy in implementing seamless service across customer journey paths.



## Sustainable Value Creation

### Expanding best practice sharing and talent exchange to promote JV culture

Korean Air and Delta have expanded cooperation into fostering JV culture by pursuing best practice sharing and talent exchange. As a first step, the JV has formed working groups to continue the momentum of growing synergy and partnerships. Deepening cooperation in a working group level further promoted the sharing of strategy and knowledge between Korean Air and Delta, contributing to forming a shared culture in the JV. Talent exchange in Pricing and Revenue Management (PRM) is ongoing between Korean Air HQ and Delta HQ, co-locating PRM specialists into partner airlines' headquarters. Going forward, the JV will continue leveraging and expanding such talent exchange and best practice sharing to foster JV culture.



### Non-governmental diplomacy raising the profile of Korea's aviation industry

Korean Air hosted the 62nd Association of Asia Pacific Airlines (AAPA) Assembly of Presidents in Jeju, South Korea in October 2018. CEOs and presidents of 15 AAPA member carriers attended and engaged in in-depth discussions on a wide range of industry issues.

Following the AAPA, we hosted the 75th IATA Annual General Meeting (AGM) World



Air Transport Summit in Seoul in June 2019. The IATA is known as the UN of the aviation industry. This was the first time that Korea hosted this global gathering of aviation's top leaders.

IATA is a worldwide trade association consisting of 287 airlines representing 120 countries. More than 1,000 representatives from IATA's member airlines, leading manufacturers, industry suppliers, and international and regional associations attend this annual meeting. In this regard, it is fair to say that hosting IATA AGM reflects the global standing of the country's aviation industry.

Hosting the IATA gathering provided an opportunity for us to raise the profile of Korea's aviation industry and demonstrated how Korean Air is at the center of these efforts.





# Contribution to the UN SDGs

The Sustainable Development Goals (SDGs) was adopted by the UN to address the global challenges we face in the areas of the environment, human rights, economy and society. Korean Air, as a responsible member of the international community, is making every effort at achieving the UN SDGs.

Goal	Alignment with the goal	Reporting page	Goal	Alignment with the goal	Reporting page
<b>Goal 3</b> Ensure healthy lives and promote well-being for all at all ages	Establishing a company-wide occupational safety and health system	31	<b>Goal 9</b> Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	Making efforts at reducing aircraft noise	56-57
	Strengthening response system for In-flight medical emergency	32			
	Transporting relief supplies to disaster areas	51, 53			
<b>Goal 4</b> Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	Providing lifelong learning programs to employees	46	<b>Goal 11</b> Make cities and human settlements inclusive, safe, resilient and sustainable	Conducting Habitat for Humanity activities	53
	Operating English classes (Haneul Sarang (Sky Love) English Class) for children in local communities	51, 53			
	Offering a company tour (Fascinating Travels with Korean Air)	53			
	Donating books and building libraries for schools in Chinese rural areas ("Dream Library" project in China)	53			
<b>Goal 5</b> Achieve gender equality and empower all women and girls	Implementing non-discriminatory HR policy	45	<b>Goal 13</b> Take urgent action to combat climate change and its impacts	Investing in the introduction of new eco-friendly aircraft	35
	Operating an advanced maternity protection system	45			
<b>Goal 6</b> Ensure availability and sustainable management of water and sanitation for all	Utilizing a toxic chemical management system for discharging pollutant	55-56	<b>Goal 15</b> Sustainably manage forests, combat desertification, halt and reverse land degradation, and halt biodiversity loss	Reducing GHG emissions through efficient aircraft operations	36
<b>Goal 8</b> Promote inclusive and sustainable economic growth, employment and decent work for all	Promoting healthy mind and body of employees	46	<b>Goal 17</b> Strengthen the means of implementation and revitalize the global partnership for sustainable development	Taking market-based measures for carbon reduction	37
	Nurturing global talent	46			
	Operating a variety of shared-growth policies for suppliers	49-50			
				Conducting global tree planting projects to prevent desertification in Mongolia and China	52-53
				Implementing the Skyteam CSR Statement, the commitment of the Skyteam alliance to sustainable management	11
				Joining and supporting the UN Global Compact	72





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# Our Commitment

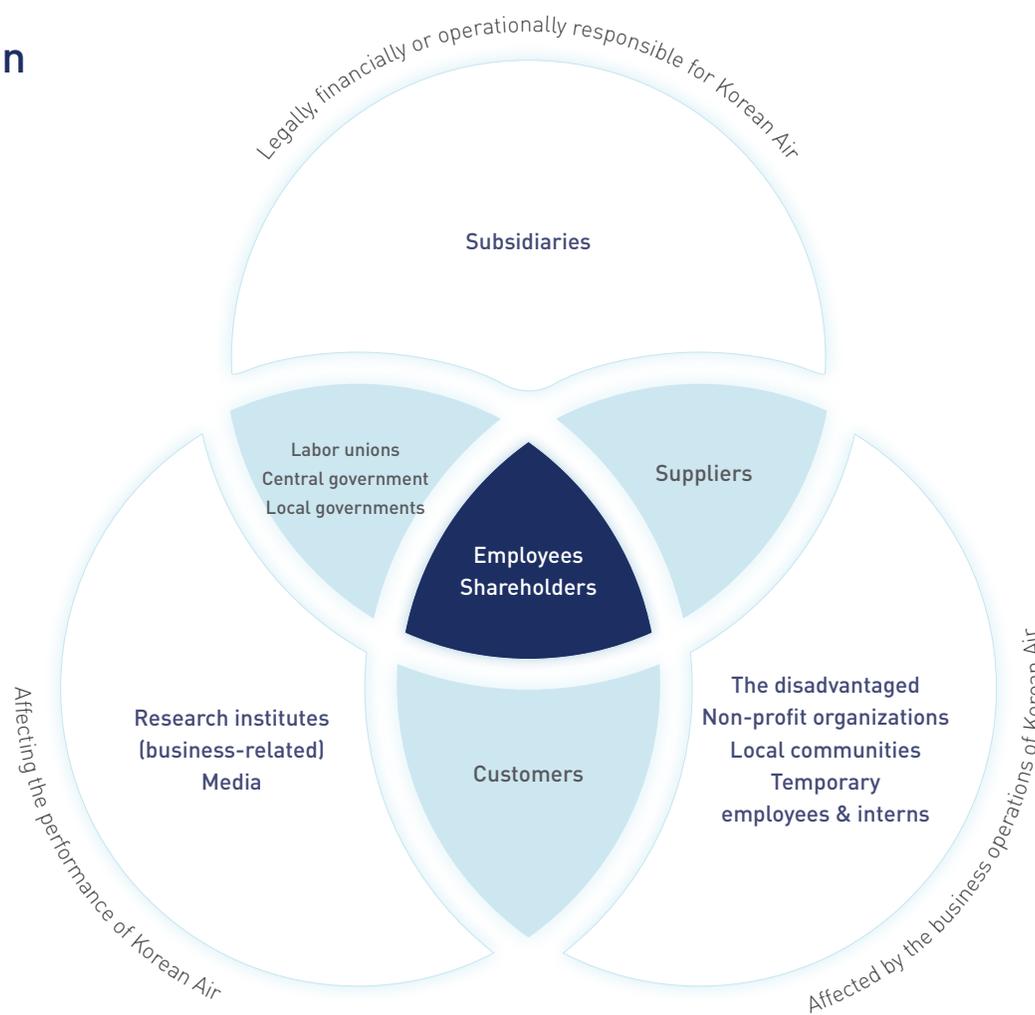


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"The topography of the Korean Peninsula" taken in Pyeongchang, Republic of Korea by Kim Sung-Wook, a Merit Prize winner at the 24th Korean Air Travel Photo Contest

# Stakeholder Communication and Material Issue Selection

## Stakeholder Groups



## Economic value distribution to stakeholders in 2018

(unit: KRW 100 million)

Stakeholders	Category	2018
Employees	Labor expenses	16,742
	Welfare benefits	3,948
Shareholders	Dividends	240
Creditors	Interest expenses	4,927
Tax service	Corporate tax expenses	4
Local Communities	Donations	96
Suppliers	Rental	3,410
	Fuel expenses	32,958
	Manufacturing expenses	6,951
	Airport expenses	12,440
<b>Total</b>		<b>81,715</b>





# Stakeholder Communication and Material Issue Selection

## Suppliers

The basis of the air transport industry lies in safety and customer service. Despite some recent negative press, the strength of Korean Air still allows the company to stand as many customers' first choice. I hope that the support Korean Air has received from customers over the last fifty years can be translated into social value and returned to society. As the most powerful company in the Hanjin Group, Korean Air can take the lead in devising a group-wide social contribution program. Based on the recognition that its success is the result of mutual cooperation, the company should further enhance communication channels with its suppliers for sharing ideas and opinions. I look forward to Korean Air's continued efforts at building a virtuous cycle in the supply chain and positively influencing society.

**Baek Seung-Joo,**  
General Deputy Manager of the Korea Airports Corporation



## Investors

Socially responsible investment, which factors in not only financial performance but also environmental-, social-, and corporate governance-related concerns, is becoming a global trend that cannot be ignored. Companies in Korea should prepare themselves for this movement.

Korean Air is expected and in fact required by society to promote sound corporate governance and conduct transparent business activities. To build cooperative relationships with shareholders, it is recommended that shareholder return policies be established over the long term. Information disclosure and active communication with shareholders are necessary to allow them to better understand the company's business operations.

I hope Korean Air will conduct business activities that respect its stakeholders, thereby raising corporate value and achieving sustainability.

**Jung Yeon-Seoung,**  
Analyst at NH Investment & Securities



## Customers

When I traveled to Japan with my six-month old baby last year, I used Korean Air's in-flight bassinet seat and baby food service. The cabin crew spread layers of blankets in the bassinet for a sound sleep and lent me an iPad to sooth the baby when it woke up crying. I hope Korean Air will continue to offer a variety of services for travelers with special needs, including children, pregnant women, the handicapped, and the elderly. As Korean Air has been in the news regarding human rights issues over the last few years, there have been some negative perceptions on the company despite its excellent business operations. Only when the wellbeing of employees is ensured can they provide services that satisfy customers. I hope Korean Air will further strengthen its efforts at helping its employees take pride in the company and feel happy and motivated at work so that the company can be trusted both internally and externally.

**Sung Jin-Young,**  
Korean Air customer



## Employees

Considerable investment is being made at Korean Air to secure future competitiveness. The joint venture agreement with Delta Air Lines and cloud-based IT systems will allow us to provide differentiated customer service. In addition, highly-efficient aircraft with low carbon emissions are being introduced to reduce our environmental impact. These efforts will lay a foundation for Korean Air to achieve growth over the next five decades. To become a respected company, we should proactively respond to stakeholders' requirements and social expectations while transparently communicating our business activities to stakeholders. It is necessary to build an internal culture of transparent communication with the company's vision, values, and future plans shared with employees. As a leader in the Korean aviation industry, I look forward to Korean Air's efforts at taking the initiative to address social issues and transparently communicate with stakeholders.

**Kim Sang-Hyeok,**  
Manager of Korean Air



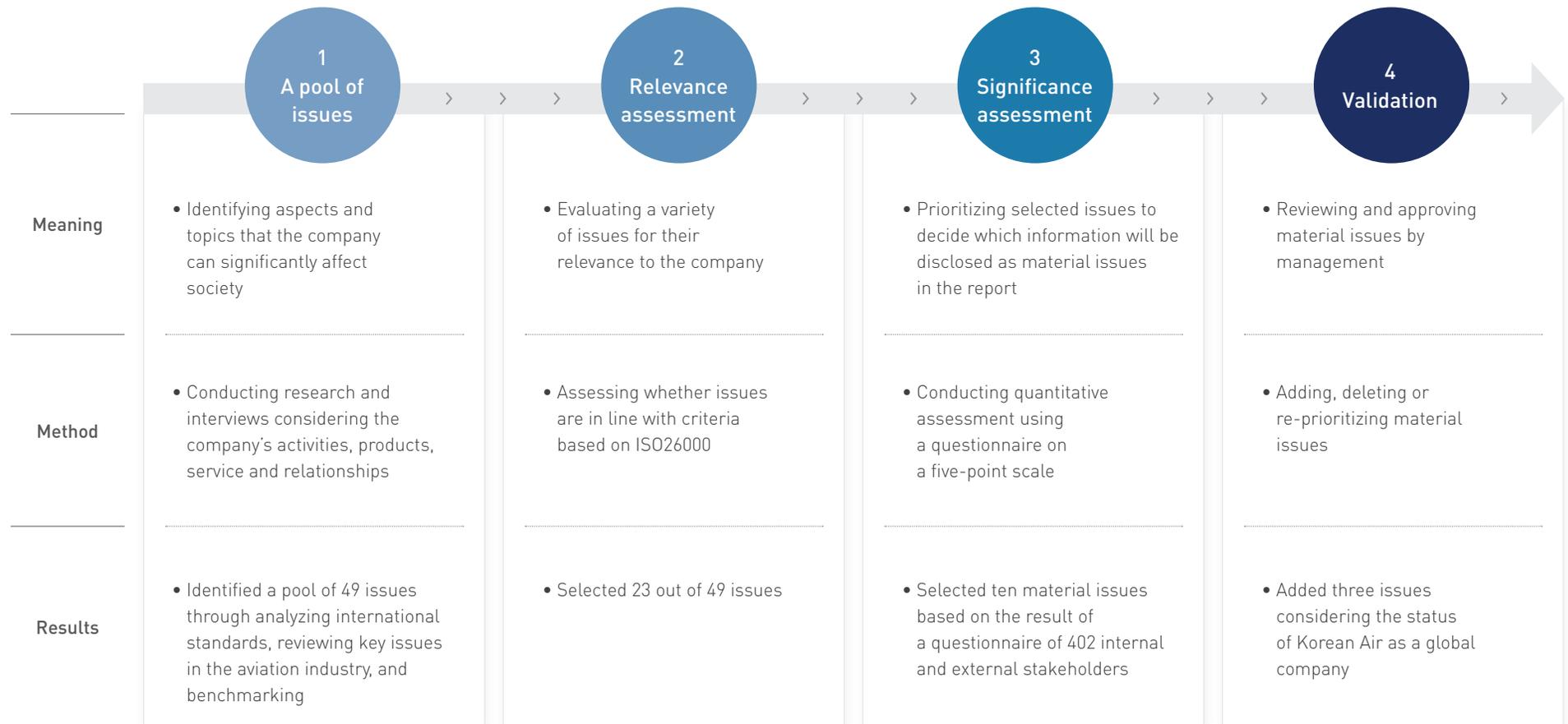


# Stakeholder Communication and Material Issue Selection

## Decision making process of material issues

We conducted a materiality assessment to identify a variety of interests and expectations of internal and external stakeholders and select sustainability issues impacting our business activities. Issues were prioritized in the process of issue pool creation, relevance and significance assessment and validation in accordance with GRI Standards and ISO26000. Material issues selected through this process were covered in this report. Higher priority was given to issues, including ethics and integrity, and corporate governance, as there was increasing demand internally and externally for transparent and ethical management in 2018.

### Materiality assessment process



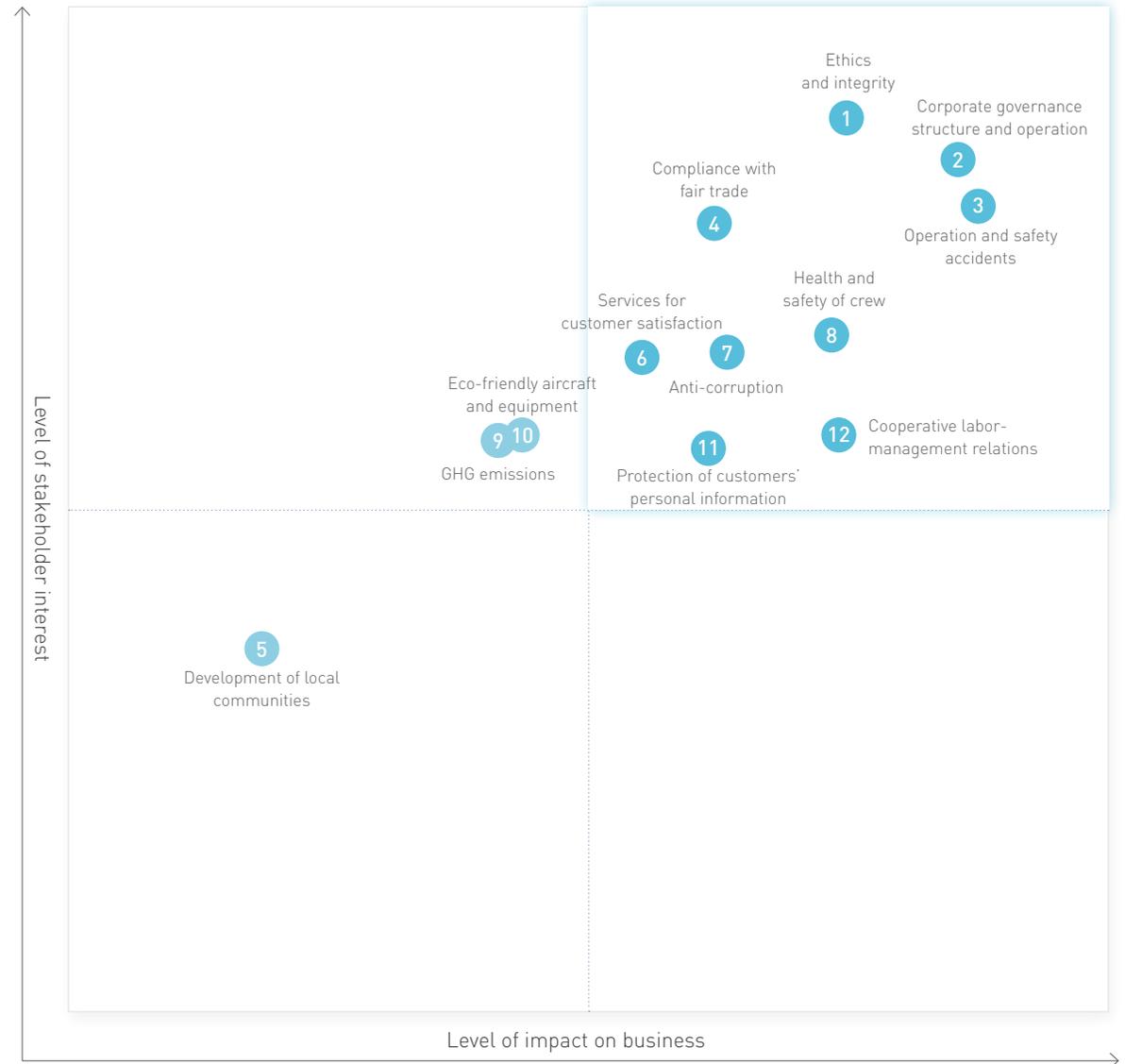


# Stakeholder Communication and Material Issue Selection



## Materiality assessment results

Issue	GRI Standards Topic	Reporting boundary	Page
1 Ethics and integrity	GRI 102	Internal	27-28
2 Corporate governance structure and operation	GRI 102	Internal	25-26
3 Operation and safety accidents	GRI 403, GRI 416	Internal/ External	29-32
4 Compliance with fair trade	GRI 206	Internal/ External	27-28
5 Development of local communities	GRI 413	External	51-53
6 Services for customer satisfaction	GRI 417	Internal	39-42
7 Anti-corruption	GRI 205	Internal/ External	27-28
8 Health and safety of crew	GRI 403, GRI 416	Internal	29-32, 46
9 GHG emissions	GRI 305	Internal	33-38
10 Eco-friendly aircraft and equipment	-	Internal	35-36
11 Protection of customers' personal information	GRI 418	Internal	43
12 Cooperative labor-management relations	GRI 402	Internal	47-48





Commitment 1

# Transparent and Ethical Management

Stakeholder views	Promoting ethical and transparent management
GRI topic	Ethics and integrity / Corporate governance
Reporting issues	Transparent corporate governance Ethical management

Where the impact comes from		Where the issue impacts		
Internal	External	Cost	Profit	Risk
•	•			•

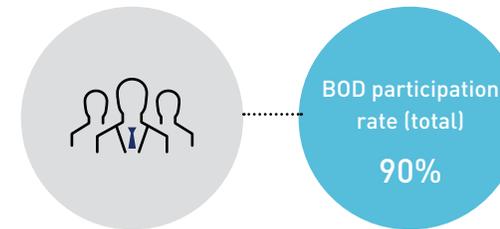
### WHERE WE STAND-Changes in the Business Environment and Korean Air at Present

We are deeply aware that transparency and ethics in business management are fundamental to the sustainable growth of companies. For sustainable development over the past and coming 50 years, we have been and will be making multi-faceted efforts at protecting shareholders' rights and maximizing corporate value through transparent management.

### HOW WE LISTEN-Stakeholder Views

In the 2019 stakeholder materiality assessment, higher priority was given to particular issues, including corporate governance structure and operations, compliance with fair business practices, and anti-corruption programs. To meet these requirements, efforts at improving corporate governance will be made in phases by the strengthening transparency, independence, and expertise of the board of directors. As part of these efforts, we are working on measures to heighten the independence of the BOD and restructure the operations of its committees.

### WHAT WE DO



	2016	2017	2018
Number of BOD meetings convened	13	9	7
Number of approved agenda (items)	40	46	30
BOD participation rate (total) (%)	92	92	90



### Transparent corporate governance

#### Board of Directors

Korean Air’s board of directors consists of three internal directors, including the CEO, and five outside directors with proficiency in different fields of academia, law, and government. Outside directors are appointed by the general shareholders’ meeting from the candidates nominated by the Independent Director Recommendation Committee, the majority of which are composed of outside directors. Some qualifying shareholders can recommend a candidate for a outside director position provided that he/she follows procedure. Information on the outside directors and candidates are disclosed on the DART website in the run-up to the general shareholders’ meeting.

	Name	Position	Date of appointment	Term	Note
Executive directors	Cho Won-Tae	Chairman & CEO	2018.3.23	3 years	BOD Chairman
	Woo Kee-Hong	Executive Vice President	2017.3.24	3 years	
	Lee Soo-Keun	Executive Vice President	2017.3.24	3 years	
Independent directors	Ahn Yong-Seok	Lawyer (Lee & Ko Law Firm)	2017.3.24	3 years	
	Jeong Jin-Su	Lawyer (Yoon & Yang Law Firm)	2017.3.24	3 years	
	Rim Che-Min	Advisor (Lee & Ko Law Firm)	2018.3.23	3 years	
	Kim Dong-Jae	Professor of Graduate School of International Studies, Yonsei University	2018.3.23	3 years	
	Park Nam-Gyoo	Professor of School of Business, Seoul National University	2019.3.27	3 years	

As of June 2019

#### BOD performance results

Korean Air’s board of directors convened seven regular meetings to discuss and vote on 30 different agenda in 2018. The BOD holds regular meetings at least once every quarter to ensure the informed discussion and review of major agenda, and convenes extraordinary meetings whenever necessary. The annual BOD meeting schedule is published in advance to ensure a higher rate of attendance each year. In 2018, the average rate of attendance stood at 90 percent, i.e. the meetings were attended by 8 directors on average. Senior-level executives from each business di-

visions, including Passenger, Cargo, Finance, and Technology, may attend the BOD meetings whenever deemed necessary in order to assist the directors in informed decision-making. Executives in charge of individual business areas also present relevant issues to the board and answer questions pertaining to the agenda.

#### Major BOD activities in 2018

Date	Agenda	Attendance of outside directors
2018. 2. 8	Four agenda items including the FY2017 Account Settlement	5/5
2018. 3. 7	One agenda item including the 56th Annual General Shareholders’ Meeting	3/5
2018. 3. 23	Five agenda items including appointment (proposal) of CEO	4/5
2018. 5. 10	Three agenda items including the first quarter of FY2018 Account Settlement	5/5
2018. 7. 19	Six agenda items including the first half of FY2018 Account Settlement	4/5
2018. 11. 1	Seven agenda items including the renewal (proposal) of a data center outsourcing contract	5/5
2018. 12. 20	Four agenda items including 2019 business plan (proposal)	4/5

#### Committees in the BOD

In order to ensure efficient operation of the Board of Directors and to comply with related laws and regulations, Korean Air has established and operated five committees, namely the Audit Committee, Independent Director Recommendation Committee, Affiliate Transactions Committee, Management Committee, and Safety Committee.

Since all members of the Audit Committee are outside directors, they can independently monitor the performance of the directors’ duties and the company operations with senior executives in the financial and auditing divisions attending to assist members as they deliberate the agenda.

To expand the independence of the Independent Director Recommendation Committee, it is now composed of 75% independent outside directors, exceeding the majority stipulated in the Commercial Act. In addition, to meet social requirements for BOD independence, we are working on plans for gradually increasing the share of outside directors and assigning the role of the Chairman to an outside director.





**Committee Information** (as of June 2019)

Committee	Composition	Name of Directors	Organizational purpose and responsibilities
Independent Director Recommendation Committee	Executive director (1)	Woo Kee-Hong	Nominating outside director candidates according to governing laws, including the company's Articles of Association and the Board of Directors Regulations
	Independent director (3)	Park Nam-Gyoo, Jeong Jin-Su, Rim Che-Min	
Audit Committee	Independent director (3)	Rim Che-Min, Jeong Jin-Su, Kim Dong-Jae	Auditing the account books and business operations while dealing with matters commissioned by the Board of Directors according to governing laws, including the Articles of Association and the Board of Directors Regulations
Management Committee	Executive director (2)	Cho Won-Tae, Woo Kee-Hong	Making decisions pertaining to the agenda as commissioned by the Board of Directors and significant issues other than those subject to the resolution by the general shareholders' meeting as stipulated in the relevant laws and the Articles of Association
	Independent director (3)	Ahn Yong-Seok, Jeong Jin-Su, Rim Che-Min	
Affiliate Transactions Committee	Executive director (1)	Lee Soo-Keun	Performing previews of major inside transactions involving affiliated persons under the Fair Trade Act, and making suggestions for corrections to any transactional activity pointing out possible legal violations
	Independent director (2)	Jeong Jin-Su, Kim Dong-Jae	
Safety Committee	Standing director (2)	Lee Soo-Keun, Woo Kee-Hong	Conducting monitoring and providing suggestions regarding safety performance and management, and making decisions pertaining to the agenda as commissioned by the Board of Directors
	Independent director (1)	Rim Che-Min	

**Preventing conflict of interests within the BOD**

Korean Air's articles of association and BOD regulations stipulate "directors with vested interests in any particular agenda are disqualified from the voting rights on the item in question and are therefore unable to partake in the quorum at the meeting". Members of the board are notified of this rule prior to making a resolution.

**Decision-making hierarchy and socially responsible management**

The CEO and chairman of Korean Air concurrently holds the position of chairman of the board to deal with major business issues more efficiently and is entrusted with the management of all business matters, including economic, environmental and societal, to ensure the timeliness of decision-making. The high-level council, a standing body composed of executives, who are heads of key divisions or higher in position, makes decisions on strategic business and sustainability management. This council functions as an effective decision-making body by actively responding to the expectations and demands of stakeholders on economic, environmental, and social trends, and by reviewing and reaching a consensus on issues from a company-wide perspective. The council meets regularly to monitor and evaluate the resolution progress of issues discussed at meetings.

**Evaluation and compensation for directors and executives**

In 2018, a remuneration limit for directors of KRW 5 billion was approved at the general shareholders' meeting, and KRW 4.79 billion was executed. In regard to remuneration of executives, incentives are being provided based on evaluation results using a sustainable management evaluation index revised annually in consideration of the business environment and factors that can potentially serve as either crises or opportunities.

**Stakeholder communication channels**

We are utilizing a range of channels, including annual, semi-annual and quarterly reports, IR information on the website, general shareholders' meetings, IR sessions, and the DART (<https://dart.fss.or.kr>) to swiftly communicate major business issues to shareholders and stakeholders, and to receive their feedback. In particular, as the sustainability report is a major channel of communication with stakeholders, it is published with the approval of the president, vice president and heads of divisions.





### Ethics management

#### Charter of Ethics and core management value

We proclaimed our commitment to business ethics by announcing the incorporation of its Charter of Ethics in January 2001, as the guiding principles in all business activities. Additionally, our employees at Korean Air pledged to follow the underlying principles and values in their daily business activities.

#### Korean Air's Charter of Ethics

Korean Air regards transparency and responsibility as core management values. We respect free market principles and abide by relevant rules and regulations in our business practices. With these principles, we strive to promote prosperity for the company and society as a whole.

As a result, Korean Air institutes a Charter of Ethics, which we vow to observe at all times.

- We regard customer satisfaction and safety as our highest priority.
- We increase investment value for our investors.
- We respect all employees and their right to an enhanced quality of life.
- We promote shared growth with our suppliers based on mutual trust.
- We respect the principles of free competition and maintain front-runner status in the development of the air transport industry.
- We contribute strongly to the sound development of society and to the preservation of the environment.
- We acknowledge the corporate principles set forth by the company and uphold all obligations and responsibilities.

#### Ethics management organization

In addition to the in-house ethics secretariat, the heads of each business division and executive officers in charge are serving as chief ethics officers who encourage and assist ranks-and-files with making rightful decision-making and behavior. Based on the Charter of Ethics, we have developed business ethics programs for all employees to abide by, including guidelines on the implementation of the code of ethics, on dealing with ethics issues and the whistleblowing program.

### Our business ethics programs

Pertinent internal guidelines/rules	Details
Charter of Ethics	Core management value and guiding principles in all business activities
Guidelines on the implementation of the code of ethics	Action guide at work for implementing the Charter of Ethics
Guidelines on dealing with ethics issues	Guidelines to help employees to make a right decision and act based on sound judgement
Whistleblowing system	System to minimize the occurrence of illegal misconduct within the organization and prevent retaliation against employees for reporting violations

#### Raising employee awareness of ethics

Guidelines on business ethics are posted in a dedicated bulletin board on our intranet. The quarterly Compliance Letter provides employees with the latest information on the trends and regulatory status of ethics and compliance management. Furthermore, so they better understand the importance of ethics management and renew their commitment to its implementation, all of our employees are undergoing pertinent training through our internal learning network and are submitting an ethics pledge.





### Ethics/compliance training programs

To support our employees to understand and strictly comply with laws and regulations, we are providing a range of ethics/compliance training programs, including Ethics Management in Korean Air, Sexual Harassment-free Workplace, Compliance with Anti-trust Laws, Compliance Officer Program, and Understanding of Improper Solicitation and Graft Act.

#### Ethics management training performance (Unit: persons)

Course title	2016	2017	2018
Compliance with Anti-trust Laws*	1,110	1,419	1,174
Sexual Harassment-free Workplace	19,234	18,760	18,785
Ethics Management in Korean Air**	17,558	516	18,699
Compliance Officer Program***	17,038	476	724
Understanding of Improper Solicitation and Graft Act***	18,056	2	1

\* Operated annually for domestic and overseas sales personnel

\*\* Conducted biennially

\*\*\* Run every other year. The 2018 training was postponed to 2019.

### Whistleblowing system

The whistleblowing procedure has been in place to eradicate personal and business favors requested and/or provided by employees, illegal acts, corruption and other irregularities that often arise in deals involving suppliers. Anyone can report any of the above via e-mail (jebo@koreanair.com). All received reports go through fact-finding investigations for appropriate measures to determine appropriate punishments or corrective action. Reporters are strictly protected according to the internal rules and procedures, and are kept up to date with the progress of the investigation.

### Fair business practices and legal compliance

Korean Air has been running the Compliance Program and signed the 'Fair Trade and Shared Growth Agreement' with aircraft manufacturing-related suppliers as recommended by the Fair Trade Commission. Committed to promoting fair business practices within the organization, we have also adopted the Fair Trade Commission's Four-Action Plan while operating the Unfair Transactions Report Center in the promoting of self-compliance.





Commitment 2

# Enhanced Safety and Security

Commitment 2  
Enhanced Safety and Security

<b>Stakeholder views</b>	Operational safety / Conducting safety management/check and strengthening security
<b>GRI topic</b>	Industrial and customer health and safety
<b>Reporting issues</b>	Ensuring flawless operational safety Conducting safety management/check and strengthening security

Where the impact comes from		Where the issue impacts		
Internal	External	Cost	Profit	Risk
●	●	●		●



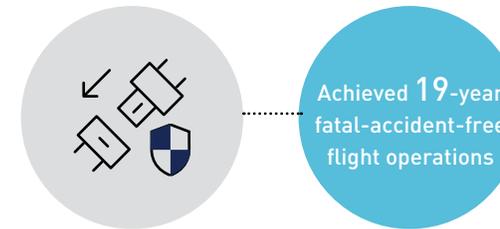
### WHERE WE STAND-Changes in the Business Environment and Korean Air at Present

According to the International Civil Aviation Organization (ICAO), the demand for global air travel has doubled every 15 years since 1977. This number is expected to continue to grow, reaching 2.9 billion by 2022. Amid concerns that rising demand may negatively impact aviation safety in the air and at the airport, ground handling accidents have recently occurred at airports and emerged as a new safety issue. On the domestic front, a bill was tabled to revise the Aviation Safety Act to further promote preventative aviation safety management through facilitating a safety reporting system and sharing data.

### HOW WE LISTEN-Stakeholder Views

In the 2019 stakeholder materiality assessment, aviation safety was identified as a key issue for our sustainability. In particular, it was selected as an issue with the highest priority by customers and employees. For Korean Air, safety is without hesitation the top priority. Therefore, we are continuing to upgrade our safety management, building upon our accomplishment of no fatal accidents over the last 20 years.

### WHAT WE DO



Indicator	2016	2017	2018	2019 target
Ongoing efforts at ensuring operational safety	Achieved 17-year fatal-accident-free flight operations	Achieved 18-year fatal-accident-free flight operations	Achieved 19-year fatal-accident-free flight operations	Achieved 20-year fatal-accident-free flight operations





### Operating a world-class safety management system

The aviation industry is facing new risks due to surging air traffic demand. To respond in an advanced and systematic manner, we have become the first airline in Korea to acquire a Certificate of Approval of the Safety Management System (SMS) from the Ministry of Land, Infrastructure, and Transport.

The SMS, which defines safety management organizations, responsibilities, policies, and procedures, is in compliance with all pertinent domestic and international requirements and standards.

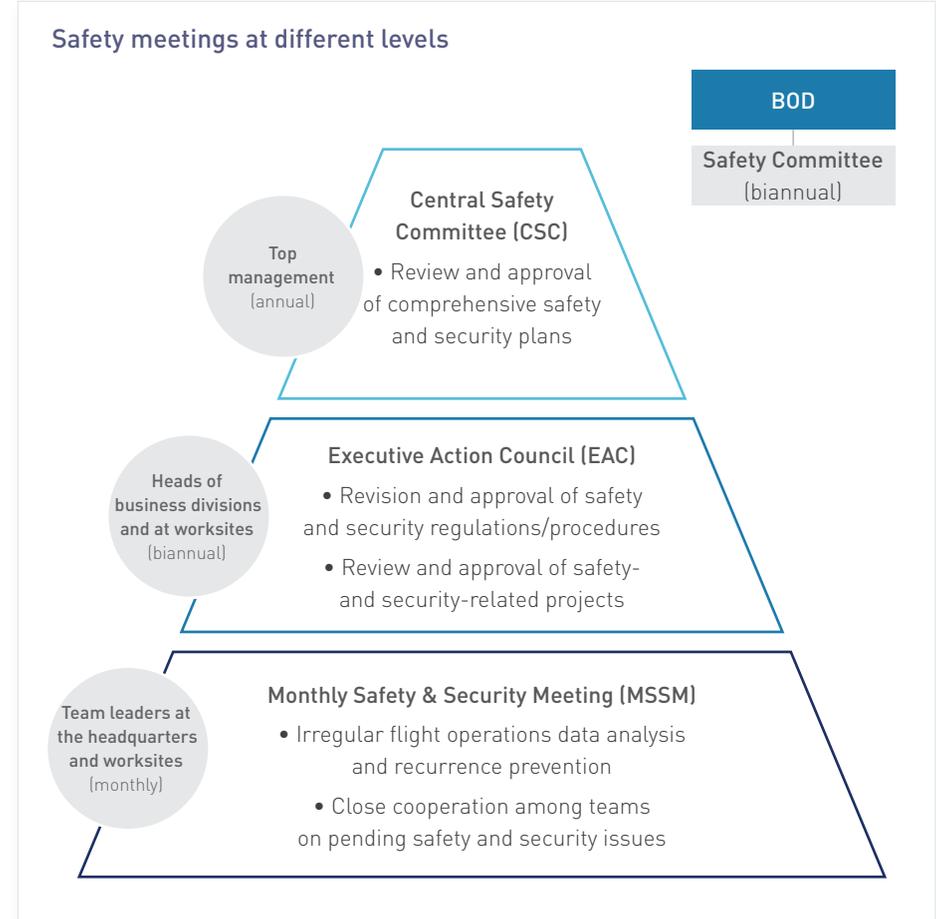
### A three-phase approach of Korean Air's safety management system

Predictive method	Proactive method	Reactive method
Implementing safety management based on the analysis of flight operations and monitoring data	Minimizing impact by identifying risks through safety reports and examinations	Investigating events that have already occurred and analyzing the cause.

### Strengthening safety management through regular safety meetings

To further promote safety management, a Safety Committee was established under the BOD in 2018. Its role is to deliberate on the safety-related agenda by monitoring related activities and provide advice to the BOD. The committee is composed of internal and outside directors, and its elevated level of expertise is contributing to increasing safety at Korean Air.

To ensure operational safety, it regularly holds safety meetings at different levels to share information company-wide, identify issues, and discuss related measures.





Our Commitment

Commitment 2  
Enhanced Safety and Security

### Operating safety management organizations

For efficient and systematic safety management, Corporate Safety, Security & Compliance Department, under the direct authority of the president, coordinates all sectors including Passenger and Cargo Business, Flight Operations, Cabin Operations, Maintenance & Engineering, Operations Control divisions, and domestic/overseas regional headquarters. In sum, a company-wide SMS organization is in effect engaging all Korean Air members from management to frontline staff to provide the best safety standards.

At the Corporate Safety, Security & Compliance Department, the SMS Group cooperates with ground safety, aviation safety, and quality assurance teams analyzes data from accident investigations, operational data, and the aviation safety reporting system, using the SMS IT system. Based on the results, proactive and preventive measures are being taken by identifying, assessing, and monitoring potential risks.

### SMS Excellence reward

As part of the efforts to identify hazards (meaning elements with the potential to cause harm to aviation safety) in advance and reduce risks, we introduced the SMS Excellence reward for outstanding hazard reports in June 2018. Noteworthy hazard reports are selected monthly and announced to the entire company, and award certificates and prize money are given to employees making these reports. In addition, a publicly awarded Safety Champion is selected from among these employees every six months. This reward system encourages the voluntary participation of employees, contributing to creating a culture of safety reporting.



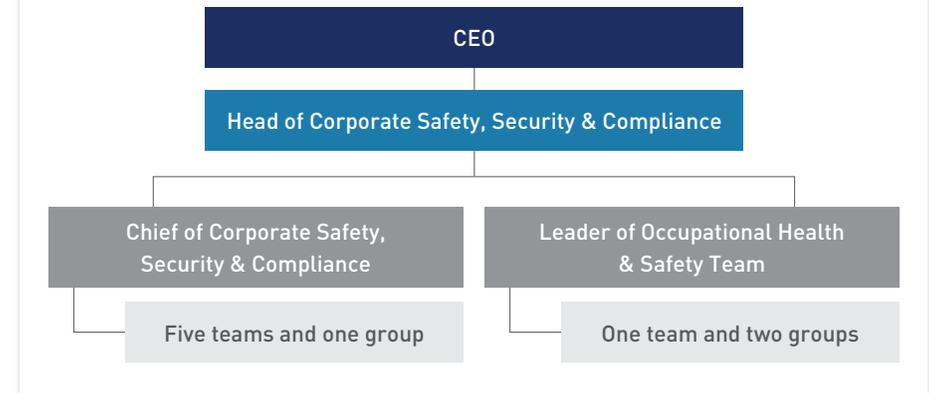
### Establishing a company-wide occupational Safety and Health system

We are making continuous efforts to ensure employee safety and establish an accident-free workplace. In November 2018, an Occupational Safety & Health Team was newly established to independently take charge of this area, which had previously been covered in the aviation safety domain.

To improve the working environment and prevent industrial accidents, personnel responsible for health and safety are appointed at the company and division levels. In addition, rounds of visits to Korean Air and supplier worksites are made to oversee the implementation status of pertinent measures.

Moreover, regular training on industrial safety and health is being provided to employees in order to raise awareness, and assessments of the working environment are performed on a regular basis to ensure a healthy and safe workplace.

#### Establishment of an Occupational Health and Safety Team





### Proactively responding to changes in the aviation security environment

Recently, the aviation security environment is changing in multiple ways.

In response, a range of efforts are being made to effectively respond to changes in the external environment, such as a new certification system for aviation security equipment and identification service using biometric data. To increase customer convenience and establish a robust security system, we are planning to purchase a new X-ray security screening system and proposing the revision of government regulations and internal rules for early introduction of biometric ID checks at the gate.

To keep abreast of aviation security trends at home and abroad, we are proactively participating and presenting ideas at international conferences held by the IATA (International Air Transport Association), AAPA (Association of Asia Pacific Airlines) and SkyTeam, as well as at national conferences such as the Aviation Security Forum, KAFAS (Korea Association For Aviation Security), and Aviation Security Seminar.

Going forward, we will continue our effort at building relationships with pertinent international and domestic organizations, collecting up-to-date information, and proactively responding to external changes so that our customers can enjoy safe and pleasant flights.

### Strengthening the response system for in-flight medical emergencies

As demand for air travel rises, a variety of medical emergency situations are taking place.

To systematically provide medical support and respond to medical emergencies during flights and at the airport, we operate an Emergency Medical Call System (EMCS), a department dedicated to passengers with medical needs.

To respond to health emergencies, a range of medical devices, including AEDs and medical supplies for infection prevention, have been prepared in the cabin. We also recently adopted a new type of AED device and changed in-flight medical supply items to reflect the needs of the cabin crew.

Since 2008, we have been operating a CPR training center certified by the Korean Association of Cardio Pulmonary Resuscitation in which employees of Korean Air and its suppliers are learning to perform CPR and use AED machines.

In an effort to enhance the quality of our CPR training, we introduced educational equipment that allows checking the depth of chest compression and the appropriateness of artificial respiration, with feedback provided in real-time.





Commitment 3

# Response to Climate Change

Commitment 3  
Response to Climate Change

<b>Stakeholder views</b>	GHG emissions
<b>GRI topic</b>	Energy, emissions
<b>Reporting issues</b>	<p>Supporting and implementing the international community's GHG emissions reduction goals</p> <p>Reducing GHG emissions through technological development</p> <p>Cutting GHG emissions through operational efficiency</p> <p>Taking market-based measures</p>

Where the impact comes from		Where the issue impacts		
Internal	External	Cost	Profit	Risk
●	●	●		●



## WHERE WE STAND-Changes in the Business Environment and Korean Air at Present

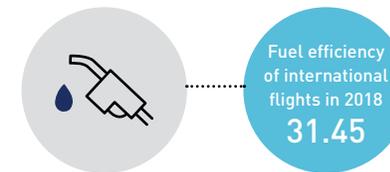
The ICAO has set a goal of "carbon-neutral growth from 2020" in an effort to maintain international aviation's global net CO2 emissions at a stable level from next year. As a result, the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) is currently being applied to the global aviation industry. In any year starting in 2021, any CO2 emissions covered by the scheme that exceed the average baseline emissions for 2019 and 2020 must be offset.

Meanwhile, the Korean Emissions Trading System (KETS) has entered its second phase in which a percentage of allowances are subject to being auctioned, and trading prices are steadily increasing. Companies are being required by stakeholders to make investments that address climate change. Taking a long-term approach to this issue is not an option: it is a must for ensuring the sustainable growth of companies.

## HOW WE LISTEN-Stakeholder Views

Korean Air's stakeholders regard energy and GHG emissions costs to be a key issue given the serious impact of GHG emissions. From the perspective of energy and GHG emission management, we consider our response to climate change to be a material issue.

## WHAT WE DO



Indicator	2016	2017	2018	2019 target
Fuel efficiency of international flights (l / 100RTK)	35.14	33.33	31.45	30.82

\* Fuel efficiency = Fuel consumption (liter) / Transportation (100RTK)

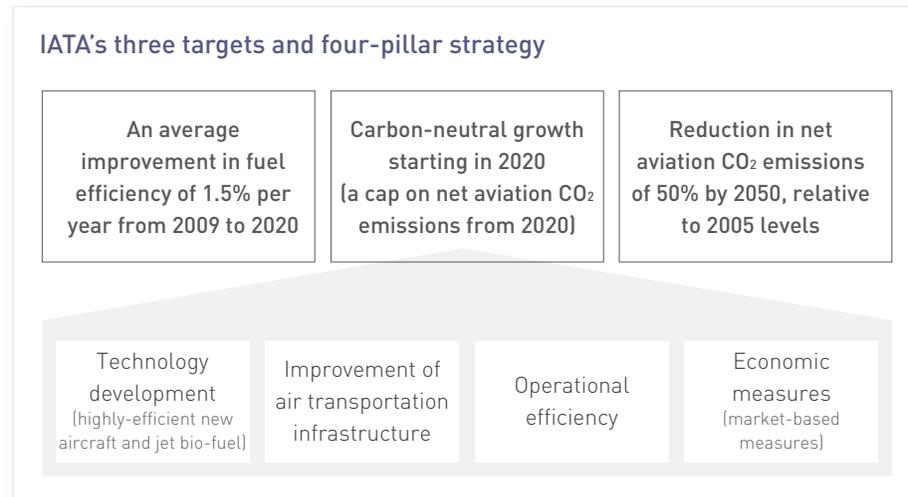
\* 1 RTK (Revenue Ton Kilometer) means a single ton of passengers/cargo for one kilometer. It is used as a unit for business volume of an airliner.



### Supporting and implementing the international community's GHG emissions reduction goals

Even though GHG emissions from aircraft account for mere 2.7% of the global total, the aviation industry has been adopting the highest level of response measures among all industrial sectors.

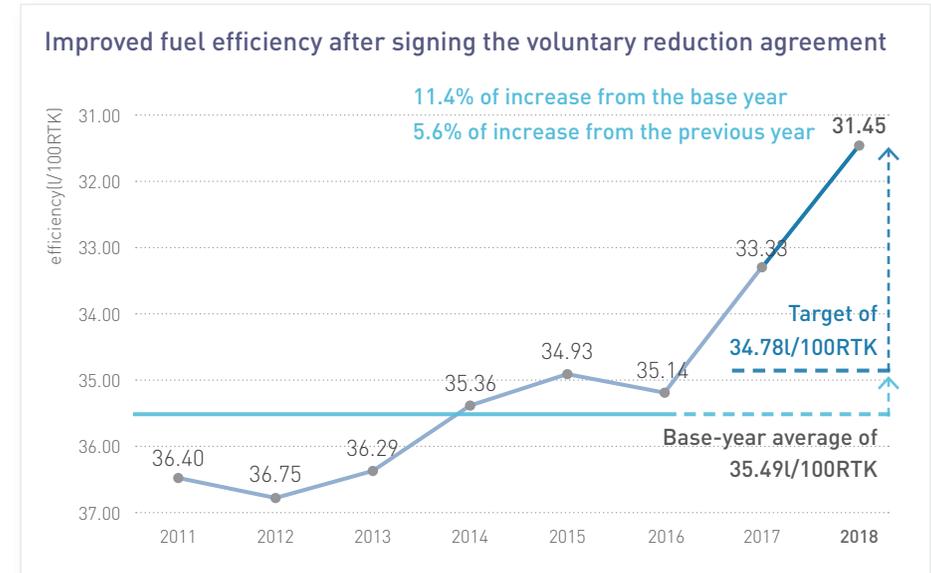
The ICAO Assembly set its goal of "carbon neutral growth from 2020" (CNG2020) at its 38th session. The plan was adopted as a means to stabilize global net CO2 emissions from international aviation at 2020 levels. On behalf of its 287 member airlines, the IATA has also established three targets and a four-pillar strategy.



We are making every effort at reducing GHG emissions in support of the IATA's three targets and four-pillar strategy. Under the CORSIA, a key means for achieving the ICAO's CNG 2020, we will monitor, report, and verify GHG emissions from our international flights starting in 2019.

In an effort to join this global movement, we signed a voluntary emissions reduction agreement with the Ministry of Land, Infrastructure, and Transport setting a

goal of 2% annual fuel efficiency improvements for international flights, and have been reporting the results to the Ministry. The target for the agreement exceeds those set by the IATA. In 2018, fuel efficiency recorded 31.45l/100RTK, a 5.6% increase from the previous year (9.6% in terms of the IATA target), a result of introducing new aircraft and developing GHG reduction technologies.



### GHG emissions reduction results (unit: tCO<sub>2</sub>)

Means for reduction	2016	2017	2018
Means for permanent effects	258,203	253,827	263,939
Means for temporary effects (increase)	8,106	11,768	14,178
Total	266,310	265,594	278,117



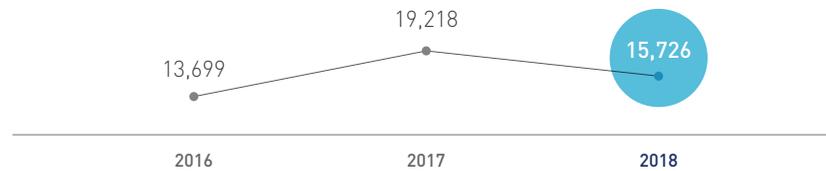
### Reducing GHG emissions through technological development: adoption of new aircraft

Enhancing aircraft efficiency through technological advances is a key means for the aviation industry to meet GHG reduction targets. In this regard, we have been maintaining the lowest average age-of-fleet in Korea through the introduction of next-generation aircraft. In addition, we are manufacturing and supplying aircraft structures that contribute to higher fuel efficiency, including winglets, raked wing-tips, and Sharklet wingtips.

Average fleet age (unit: year)

	2015	2016	2017	2018
Passenger	9.5	9.7	9.9	9.7
Cargo	9.1	7.4	7.0	5.7
Average age	9.4	9.2	9.4	9.2

Investment in aircraft (unit: KRW 100 million)



### Eco-friendly characteristics of new aircraft

#### B787-9 (adopted)

Lightweight fuselages made using carbon composite materials have significantly improved fuel efficiency. Furthermore, wing structures using the raked wingtips we manufacture can boost climbing performance and shorten landing distances.



#### A220-300 (adopted)

Noise has been drastically decreased thanks to geared turbofans, and the use of composite materials has improved fuel efficiency by 20% compared to others in the class.



#### A321NEO (to be adopted)

Fuel efficiency per seat has been improved 20% compared to others in its class, and it uses Sharklet wingtips manufactured by Korean Air.



### Creating a virtuous cycle of GHG emissions reduction with stakeholders

Infrastructure improvements such as modernized air traffic management systems make up one of the four pillars of the IATA strategy. This means communication with and support from the pertinent stakeholders is essential in our efforts to reduce GHG emissions. In cooperation with the Incheon International Airport Corporation, the use of Aircraft Ground Power Supply (AC-GPS) and Pre-Conditioned Air (PC-Air) has been promoted to minimize the use of auxiliary power units (APU) on aircraft. As a result, we eliminated 18,495 tons of GHG emissions in 2018. In addition, with the support of the Ministry of Land, Infrastructure and Transport and the Ministry of Defense, restricted airspace can now be used at nighttime or depending on weather conditions (unless there is a military exercise), allowing us to save fuel.

When reduction effects using these means can be quantified, the reduction technologies are shared within the domestic aviation industry. We joined in the publication of a manual by the Ministry of Land, Infrastructure and Transport on the implementation of aviation GHG emissions reduction technologies. We are sharing with the industry not only the currently identified technologies, but also future technologies still under discussion.

In order to contribute to cutting GHG emissions at the national level, we will sustain our efforts at developing and implementing reduction technologies together with stakeholder support and share with the aviation industry any reduction effects that can be confirmed effective through advanced monitoring.



Manual by the Ministry of Land, Infrastructure and Transport on the implementation of aviation GHG emissions reduction technologies

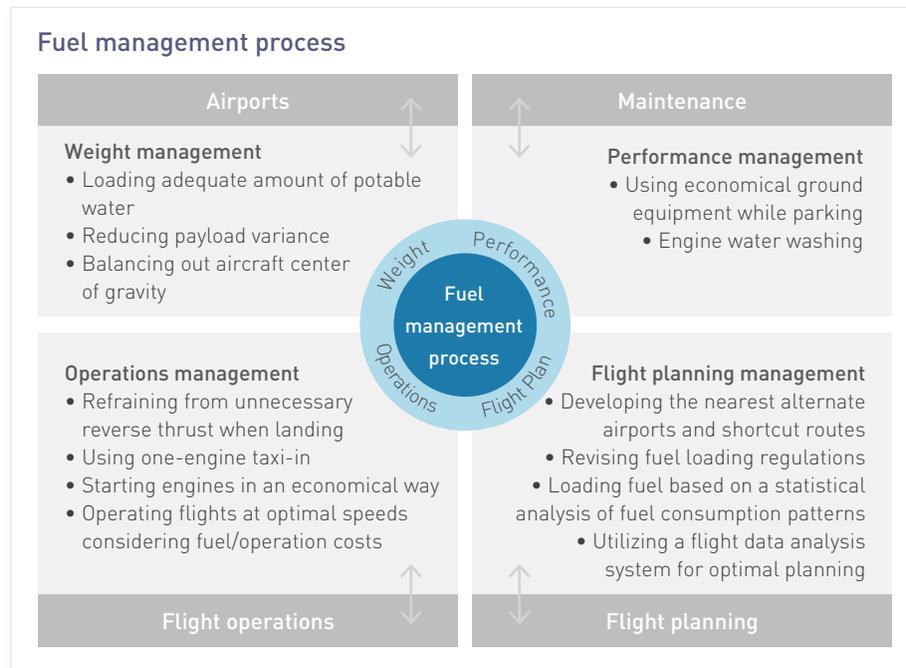


### Reducing GHG emissions through efficient aircraft operation

To achieve more efficient aircraft operations, one of the ICAO's four-pillar strategy, and support the commitment to GHG emissions reduction, we have been developing and implementing reduction methods for each division while introducing high-efficiency eco-friendly aircraft and focusing on strategic fleet operation.

#### Fuel management process

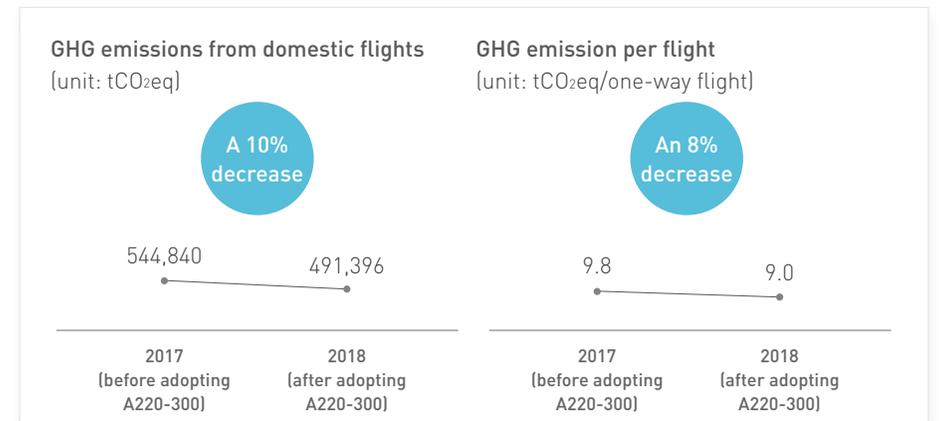
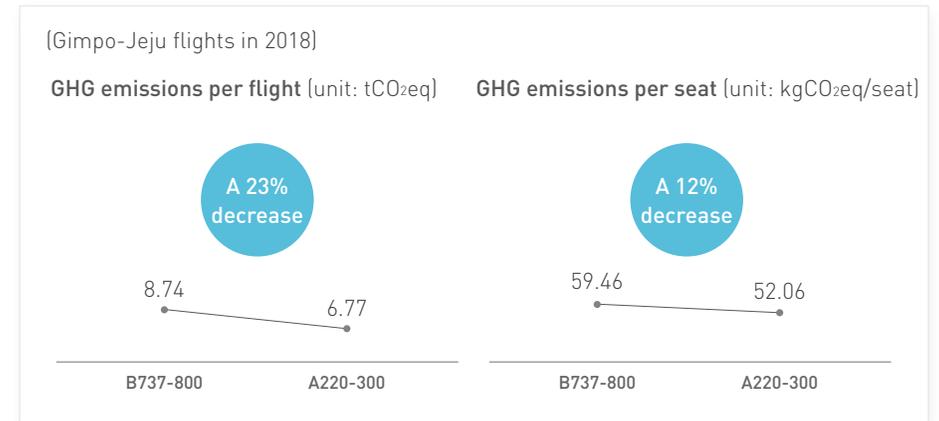
Based on our infrastructure established in accordance with fuel management processes, including fuel and GHG management systems, we are promoting operational efficiency for GHG emission reduction by operating optimal routing procedures and revising fuel-loading policies. Our fuel management organization has developed more than 180 avenues for emissions reduction over the 15 years since 2004, and is promoting and monitoring their use in cooperation with the pertinent business divisions in flight operations, maintenance, flight planning, and transportation.



### Reducing GHG emissions through strategic fleet operation

Intensified competition stemming from the rapid expansion of low-cost airlines specializing in short-haul flights has been directly impacting our profitability. To address issues related to low-demand short flight routes, we have been operating A220-300 aircraft for domestic flights and routes to Japan. Their introduction has allowed us to maintain seat-supply capacity in these routes while significantly reducing GHG emissions.

As A220-300 aircraft generate 23% less emissions per flight and 12% less per seat compared to existing B737-800s, we phased in its adoption and have cut 530,000 tons of emissions from domestic flights in 2018.





### Taking market-based measures

#### CORSIA

Offsetting is an action taken by a company or individual to compensate for their carbon emissions by financing a reduction in emissions elsewhere. Carbon offsets can be acquired by carbon emissions reduction projects such as CDM (Clean Development Mechanism) accredited by UNFCCC. A carbon offsetting system is a climate change response strategy encouraging GHG emissions reduction in which entities buy carbon credits equivalent to their carbon impact.

The ICAO had adopted its Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) to maintain international aviation's global net CO2 emissions at a stable level of 2020. In any year starting in 2021, any CO2 emissions covered by the scheme that exceed the average baseline emissions for 2019 and 2020 must be offset.

The CORSIA is the first carbon-related market-based measure covering the entire aviation industry. The related cost of offsets it will require from 2021 to 2035 is estimated at KRW 2 trillion, and the scope of application and impact are expected to be high.

In addition, the scheme is expected to facilitate carbon offsets, a relatively underutilized alternative in national and regional emission trading markets, and relies on voluntary offsetting by companies. It can also contribute to emissions reduction projects in other industries. Furthermore, as the use of aviation biofuels meets the responsibility to deliver carbon reduction, the usage of these alternative fuels is expected to grow.

Meanwhile, in November 2017 at a Chicago airport we became the first Korean airline to operate a commercial flight using biofuel. In addition, we are supporting R&D efforts at introducing alternative fuels to Korea.

After Korea agreed to participate in CORSIA in 2016, all domestic airlines became obliged to report the GHG emissions from their international flights starting in 2019 and will be subject to the offsetting scheme from 2021. In response, we have upgraded our GHG MRV (monitoring, reporting and verification) system and started emissions monitoring.

### Aviation in the EU ETS

Since 2012, Korean Air flights arriving at or departing from EU airports have been subject to the EU Emissions Trading Scheme (EU ETS) through which airlines must purchase carbon allowances equal to the emissions on intra-EU flights when exceeding the predetermined cap. In accordance with the EU's target of cutting GHG emissions by 40% from 1990 levels by 2030, annual allowances will be reduced by 2.2% starting from 2021.

With the implementation of the CORSIA by the ICAO, the scope of the EU ETS has been temporarily limited to intra-EU flights since 2013. In December 2018, the European Parliament decided to extend the timeline to 2023. As an agreement has been made to link the Swiss ETS and EU ETS, flight routes to Switzerland will be subject to the scheme from 2020. In response, we have been conducting pertinent monitoring activities. At present, GHG emissions covered by the EU ETS account for less than 1% of our total and carbon costs from allowance purchases have not been levied.

#### EU ETS applied to Korean Air (unit: tCO<sub>2</sub>)

	2012	2013	2014	2015	2016	2017	2018
Free allowances	2,051,522	20,094	20,094	20,094	20,094	20,094	20,094
Carbon emissions	1,859,876	30,803	31,069	25,598	24,095	23,877	26,671
Remaining allowances	191,646	180,937	169,962	164,458	160,457	156,674	150,097



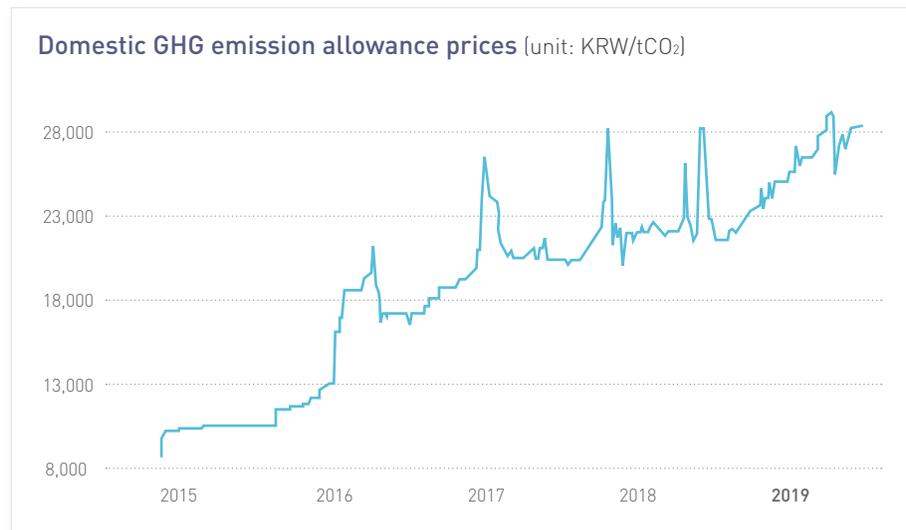


### Korea Emissions Trading Scheme (KETS)

When the Korean Emissions Trading System (KETS) was applied to aviation sector in 2015 to address GHG emissions from domestic buildings, flights, and vehicle operations, we incurred a cost of KRW 7.39 billion to purchase allowances in the first phase spanning from 2015 to 2017.

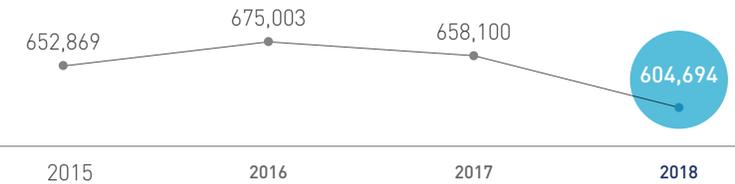
The three-year second phase started in 2018, and we obtained 3% of the total allowances by auction. As the price of allowances has been steadily rising, the burden on domestic companies is increasing.

Due to the introduction of A220-300 aircraft in 2018, our GHG emissions were recorded at 604,681 tons, an 8.3% decline from the previous year. This allowed us to secure 128,000 tons of remaining allowances.



### Results in the first phase of the KETS

GHG emissions (unit: tCO<sub>2</sub>eq)



### Carbon regulations applied or to be applied to Korean Air

Measures	Taken by	Scope	Target	GHG type	2018 emissions	Unit	First report year
KETS	Ministry of Environment	Domestic	Airplanes, buildings and vehicles	Six types of GHG, including CO <sub>2</sub>	604,694	tCO <sub>2</sub> eq	2015
EU-ETS Aviation	EU	EU	Aircraft	CO <sub>2</sub>	26,671	tCO <sub>2</sub>	2012
Voluntary emissions reduction agreement	Ministry of Land, Infrastructure and Transport	International (excluding Korea)	Aircraft	CO <sub>2</sub>	12,622,986	tCO <sub>2</sub>	2010
CORSIA	UN ICAO	International (participating countries)	Aircraft	CO <sub>2</sub>	-	tCO <sub>2</sub>	2019 (target)



Commitment 4

# Differentiated Customer Experience

<b>Stakeholder views</b>	Developing and offering customer-oriented service Protecting customer privacy and strengthening data security
<b>GRI topic</b>	Product and service labelling, and customer privacy protection
<b>Reporting issues</b>	Conducting responsible advertisement and marketing Developing customer-oriented service / Protecting customer privacy

Where the impact comes from		Where the issue impacts		
Internal	External	Cost	Profit	Risk
	●	●	●	●

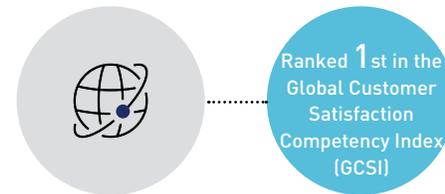
## WHERE WE STAND-Changes in the Business Environment and Korean Air at Present

A state-run company suffering under financial difficulties fifty years ago, Korean Air has emerged as a leading global airline. This would not have been possible without the unwavering support of our customers. We will continue our efforts at meeting a wide range of customers' needs in this rapidly changing society by offering differentiated high-quality service.

## HOW WE LISTEN-Stakeholder Views

Providing a differentiated customer experience was selected as a key sustainability issue in the 2019 stakeholder materiality assessment. In response, we are striving to strengthen our competitiveness by developing unique services under the umbrella of 'customer satisfaction and value creation.' This has helped Korean Air maintain first place for 14 consecutive years in the air passenger transport services sector of the Global Customer Satisfaction Competency Index (GCSI) developed by the Global Management Association (GMA). Instead of remaining complacent with this achievement, we will step up our efforts at reflecting our customers' perspective in the provision of services.

## WHAT WE DO



Indicator	2016	2017	2018	2019 target
Number of customer data breach reports (case)	0	0	0	0
Global Customer Satisfaction Competency Index (GCSI)	Ranked first for 12 consecutive years	Ranked first for 13 consecutive years	Ranked first for 14 consecutive years	<b>Ranked first for 15 consecutive years</b>

### Customer-engaged marketing

#### 'A Walk In Croatia' ad campaign captures the beauty of a nation

In celebration of the official launch of our Incheon-Zagreb route, we ran an advertisement campaign called 'A Walk In Croatia' for three months starting in September 2018. By appealing to tourists' senses and emotions through the beauty of this country, the campaign aimed at changing the perception that Croatia, a relatively lesser-known travel destination, lacks tourist attractions compared to other European countries. The TV advertisement showed the charms of different cities and scenic spots around Croatia, including Plitvice Lakes, Dubrovnik, Zadar, and Rovinj, from the perspectives of travelers enjoying the vistas on foot. In addition, advice for traveling in these cities was provided online. In particular, a Korean Air Instagram account was used as a channel to directly communicate with customers and offer information to meet their needs, receiving a positive response.



### Culture Marketing

#### Children's Airplane Drawing Contest

The Children's Airplane Drawing Contest is a contest geared toward elementary students who are interested in art. The event has been operated as part of our efforts to contribute to the development of art education for future generations and to support their hopes and dreams. The contest has evolved into a global event with elementary students from around the world participating. The Ministry of Culture, Tourism, and Sports' Minister's Prize is awarded to the grand prize winner along with an opportunity of a tour to our aircraft manufacturing sites. In addition, the winning artwork will be depicted on the exterior of a Korean Air airplane.



#### Korean Air Travel Photo Contest

Korean Air holds an annual Korean Air Travel Photo Contest that is open to anyone who likes traveling and photography. As the nation's biggest travel photo contest for amateur photographers, high quality photographs capturing beautiful scenes and natural landscapes as well as the moments of our daily lives around the globe are submitted every year. The contest is growing as an international event with a steadily increasing number of entries from countries around the world.



### Customer communication

#### Communication through the social media

We are operating Facebook, Instagram, and Twitter accounts to promote efficient interactive communication and become more familiar to our customers. These channels are utilized for responding to inquiries and providing information on our destinations, transport services, flight deals, events, and company promotions. Moreover, we are providing a variety of contemporary content in close cooperation with social media influencers and developing unique concepts for each channel.

#### Subscribers by social media channel (as of Dec. 31, 2018)

Facebook	Instagram	Twitter	youtube	blog
512,030	107,538	239,044	16,916	2,831

#### Company tour for subscribers to social media sites

This promotional event held twice or more per year provides subscribers to our social media channels opportunities for a personal tour of a flight-meal center, cockpit/cabin crew training center, and new aircraft. We will continue our efforts at facilitating proactive and interactive communication with customers.



### Successful relocation to Incheon Airport Terminal 2: offering new travel experience

The successful operation of Incheon Airport Terminal 2 is a result of efforts by all the related companies. To build an airport terminal with an improved customer experience, Korean Air participated and provided support from the design phase until one year after opening, drawing upon our expertise in airport operations. As a result, Terminal 2 has positioned itself as one of the world's best airport terminals, offering customer-oriented convenience facilities and service.

#### Significantly enhanced passenger convenience

The opening of Incheon Airport Terminal 2 has increased the passenger accommodation capacity of the airport as a whole. As the adoption of full-body scanners has allowed us to shorten security checkpoint time, departure procedures now only take about 30 minutes, 10 minutes faster than the time required at Terminal 1 before its opening.

#### Improved convenience in transfer

For those who transfer through Incheon Airport Terminal 2, which accounts for 30% of our passengers, transit counters and security checkpoints are located nearby, reducing walking time from five minutes to one. In addition, the security check area is double the size of that in Terminal 1. The transit area is equipped with convenience facilities including a digital library, hotel, shower rooms, and a game space. Moreover, an additional seven SkyTeam members have joined the original four airlines relocating to Terminal 2, increasing transit convenience.

### Preparation for a new era: participation in the fourth phase of the terminal construction project

Following our support for the successful launch and operation of Incheon Airport Terminal 2, we will join the fourth phase of the terminal construction project this year to open a new era of air travel. In this phase, the annual passenger accommodation capacity will increase from 18 to 46 million. In 2023, when the entire project is completed, Fourth Industrial Revolution technologies such as big data and IoT will be fully applied to help provide customers with optimized services. Based on our accumulated experience and expertise, we will continue to cooperate with the Incheon International Airport Corporation to establish a new paradigm for air travel.



### Commitment to enhanced customer satisfaction

Reflecting customer feedback in services is one of our key management policies. In this regard, Voice of the Customer (VOC) serves as an important tool to monitor the 'moments of truth'

#### Improved customer experience through VOC in 2018

##### (1) New options for redeeming SKYPASS award miles

We are now offering customers new options for redeeming their award miles, including coatroom services and Korean Air logo products for purchase. In addition, they can more conveniently check bonus award seat availability through our new seat availability alert service and online mileage guide page at <http://travel.koreanair.com>. Information on how to redeem and earn bonus miles are provided along with various examples on the website.

##### (2) Advance seat assignment to passengers with disabilities who purchase low-fare tickets (including an accompanying person)

Seats can be assigned in advance to passengers with disabilities and an accompanying person who purchase low-fare tickets for international flights

### Ranked first in the Global Customer Satisfaction Competency Index (GCSI)

Korean Air has been maintaining first place for 14 consecutive years in the air passenger transport services sector of the Global Customer Satisfaction Competency Index (GCSI) developed by the Global Management Association (GMA), solidifying its position as a customer-oriented company.



### Customer privacy protection

#### Integrated information security management

With growing social and policy requirements to ensure data security and privacy protection, Korean Air has established a department responsible for data security and has conducted prevention-focused activities to combat cyber terrorism and leakage of personal information. Data protection security is being conducted both at home and abroad in accordance with our privacy protection procedures that comply with all domestic and international laws and regulations. Employees' compliance with information security and privacy protection procedures are being monitored. Once issues are identified, immediate corrective action is taken to protect the intellectual and physical property of the company. At the same time, a lot of efforts are being made to prevent security incidents by proactively managing and responding to related issues.

#### Mock exercise preparing for potential security accidents

We have prepared and implemented systematized procedures so that pertinent departments can respond quickly and efficiently to potential security accidents such as hacking and personal information leakage. In addition, regular mock exercises are conducted twice a year (a cargo website in the first half and a passenger website in the second half) to prepare ourselves for a variety of security situations.

#### Data security training

All domestic and overseas employees handling customer information are required to undergo training on data security and privacy protection twice per year with some programs available year-round. Data security training covers topics including customer data, email/mobile/PC security, social engineering, the latest domestic and international trends, and any revisions to pertinent laws. These programs aim to heighten employee awareness of security and help them make an appropriate response in the case of a potential data breach. In addition, on the monthly security day that we launched in January 2016, any issues identified through the monthly security check are shared. Furthermore, a mandatory daily security check has been enacted company-wide.

### Data security training for employees (unit: person)

Year	Course	First half		Second half	
		Domestic	Overseas	Domestic	Overseas
2016	First half: Understanding of personal data and how to protect PCs Second half: Data protection at Korean Air	17,176	2,962	7,470	2,857
2017	First half: Data security Second half: Data security at Korean Air	17,403	2,915	7,817	2,567
2018	First half: Data security Second half: Privacy protection	15,979	2,533	17,480	2,619

### Number of customer data breach reports (unit: case)

	2016	2017	2018
Report case(s)	0	0	0

### Information Security Management System (ISMS)

Since 2005, we have obtained annually the Information Security Management System (ISMS) certification from Korea Internet & Security Agency (KISA) to check the appropriateness of our information protection management. Through these efforts, we strive to raise employee awareness of the importance of information protection and encourage them to take actions. At the same time, we are in compliance with pertinent laws and regulations, including the Personal Data Protection Act, the Act on the Promotion of Information and Communications Network Utilization and Information Protection, and the EU General Data Protection Regulation (GDPR).





Boarding Pass



# Our Way



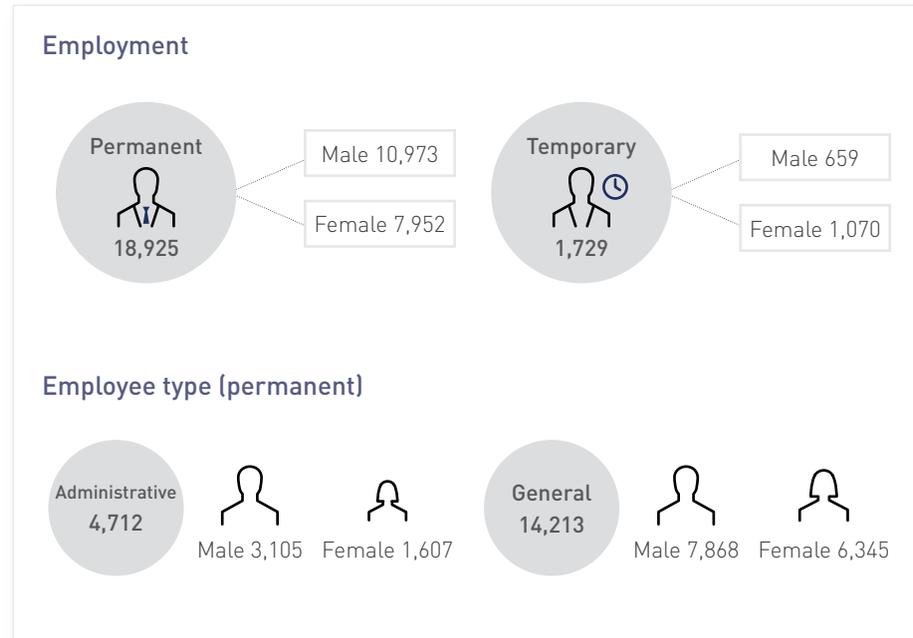
- 45 Talent Management
- 49 Shared Growth Management
- 51 Social Contribution
- 54 Environmental Management
- 58 Risk Management

"A night view in Venice" taken in Venice, Italy by Park Ja-Yang, a Bronze Prize winner at the 25th Korean Air Travel Photo Contest

# Talent Management

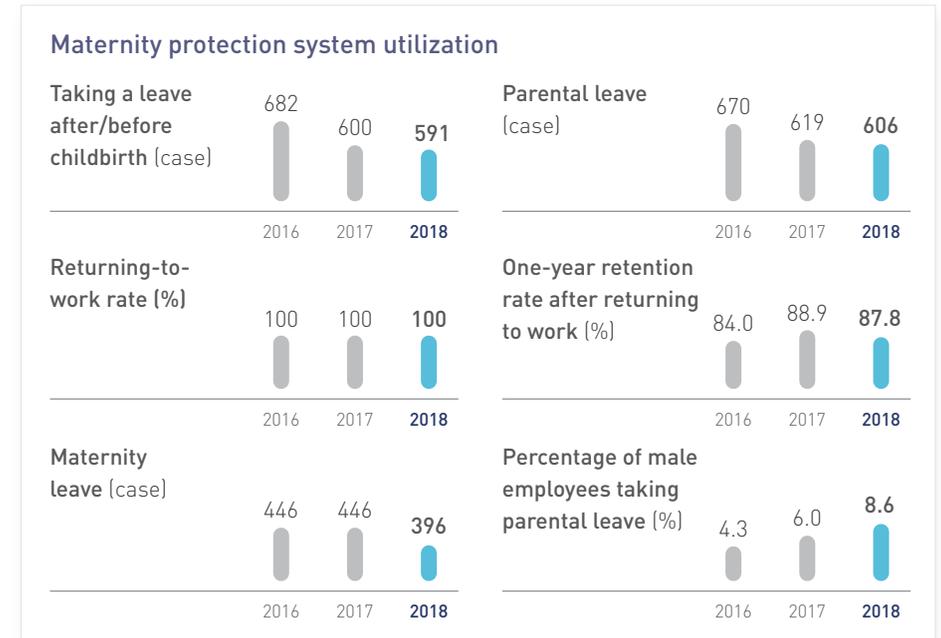
## Non-discriminatory HR policy

As of the end of December 2018, Korean Air's total workforce including overseas local hires is 20,654 and female employees account for 44 percent, or 9,022. The average tenure of our permanent employees is 15.8 years. We are making every effort to increase employee satisfaction: we offer the highest level of wages and benefits in the industry in Korea; male and female employees are given an equal starting salary in all types of jobs; and we do our utmost to ensure that all employees are treated fairly and with respect.



## Maternity protection system

Korean Air has steadily increased the proportion of female employees while promoting an HR policy based on gender equality and on elevating the status of women. To prevent career interruption in our female workforce, employees are freely encouraged to take a leave after/before childbirth and for child or family care as needed. In particular, female employees may use a work-hour reduction system during pregnancy, and even take a leave for fertility treatment. Female flight attendants are allowed to take maternity leave on the day they become aware of their pregnancy. Besides, the percentage of male employees taking parental leave is also gradually increasing.





# Talent Management

## Efforts at promoting employee health

The number of employees diagnosed with occupational or general diseases has been growing in Korea due to the aging industrial population, job stress, lifestyle shifts, and a lack of exercise. In response, we are operating the Korean Air Aero-medical Center to support our employees, prevent occupational disease, and maintain proper health. The center is conducting a variety of activities to promote employee health as follows:

### Major activities of the Korean Air Aeromedical Center (including in 2019)

Category	Details
Health promotion programs tailored to job characteristics	<ul style="list-style-type: none"> <li>Flight/Cabin crew: operating a program called Get Active for promoting physical activity</li> <li>Office and maintenance employees: providing a cerebro-/cardio-vascular disease prevention program</li> </ul>
Muscular skeletal disease prevention	<ul style="list-style-type: none"> <li>Providing counseling for customized exercise programs</li> <li>Measuring basic physical fitness and offering musculoskeletal disease prevention programs for cabin crew</li> </ul>
Cerebro-/Cardio-vascular disease prevention	<ul style="list-style-type: none"> <li>Assessing and managing risks of cerebro-/cardio-vascular diseases for employees</li> <li>Providing consultation on the risk assessment results to employees</li> </ul>
Job-related stress management	<ul style="list-style-type: none"> <li>Operating the "Take a Rest" Psychological Counseling Center to help employees thorough one-on-one counseling</li> <li>Running training programs for managerial-level employees at airports and in flight.</li> <li>Providing a trauma therapy to help crew member relieve post-accident stress</li> </ul>
Other activities	<ul style="list-style-type: none"> <li>Publishing inhouse nutrition/exercise information sheets (Health on KALMAN)</li> <li>Providing advice on smoking-cessation and diabetes from experts</li> <li>Conducting a diagnosis on sleep apnea syndrome and pertinent training for flight crew</li> </ul>

## Efforts at supporting the emotional and mental health of employees

We are operating a variety of programs to promote the emotional and mental health of employees at call centers, airports, and in flight. An annual mental health checkup is performed, and tailored support and advice is provided based on the results. Offline training programs on job stress management are offered to employees at the working and managerial levels. In addition, a trauma therapy and mental health support system is in place to help crew member relieve post-accident stress.

## Offline mental health programs

Program	Target	Year		
		2016	2017	2018
Stress management for mental health	Working-level employees at airports and in flight	291 (17sessions)	274 (14sessions)	303 (19sessions)
Mental health promotion techniques (launched in 2018)	Managerial-level employees at airports and in flight	-	-	259 (12sessions)
Health management: how to deal with stress	New contract employees at call centers	237 (14sessions)	308 (11sessions)	154 (9sessions)

## Human resource development starting with education

Our management and education philosophy can be summed up as 'The fundamentals of business management are people. Changes in people start with proper education.' Based on this, we are developing and operating a wide range of programs to nurture talent worldwide.

### Global talent development at oversea regional offices

We are providing training programs for locally-hired international employees to ensure successful operations at our overseas regional offices. Our Excellent Employee Program brings international employees with outstanding job performance to our main headquarters for a training course designed to promote an understanding of our overall business operations. In addition, coordinator training programs are offered to members of the cabin crew tasked with providing support and guidance to non-Korean crew members.

A variety of experience programs are also in operation to help international employees better understand Korean culture as well as providing job skills and management competency-building courses.

### Lifelong learning support

Korean Air established Jungseok College, Korea's first tech school run by a private company, for its employees in 2000 in order to support the lifelong learning. All employees attending the university get full-tuition scholarships with nationally accredited degrees upon their graduation and can transfer to other universities or graduate schools. A total of 1,378 students received a degree, including 947 bachelor's degrees and 431 associate's degrees, over the 18 years from its foundation up through 2019.





# Talent Management

## Work-life balance

To bolster the quality of life of our employees, we offer the highest level of wages and benefits in the industry. Employees and their immediate families can fly on any of the routes operated by Korean Air at discounted fares, which is intended to promote travelling while gaining a global perspective. Other benefit programs include housing, financial support for the child educational expenses, leisure programs, medical bills, and financial security for retirement.

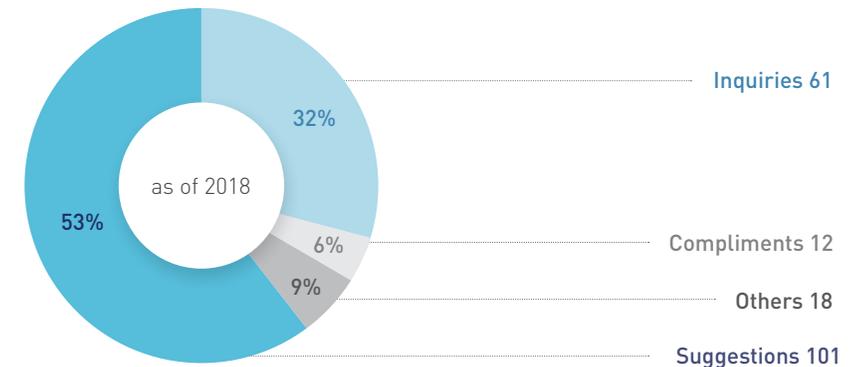
## Welfare benefit programs

Category	Details
Medical and health support	<ul style="list-style-type: none"> <li>•Subscription to the national health insurance scheme</li> <li>•Self-insurance support (allowances for the sickness/accidents/death of employees and/or their spouses)</li> <li>•Subsidies for flu shots</li> <li>•Medical bill subsidies for overseas flight attendants and any employee on business trips</li> </ul>
Leisure life	<ul style="list-style-type: none"> <li>•25 to 35 free flight tickets annually</li> <li>•257 company-owned condominiums located domestically</li> <li>•Discount for prestigious hotel chains in Korea and overseas</li> <li>•Sponsoring 27 in-house club activities</li> </ul>
Everyday life	<ul style="list-style-type: none"> <li>•Corporate housing (1,181 households)</li> <li>•Housing and 'jeonse' loans</li> <li>•Full coverage of domestic high school and college tuition for children of employees</li> <li>•Tuition subsidies for employees' children going to prestigious international universities</li> <li>•Scholarships and language course tuition subsidies for children of expatriates</li> <li>•Scholarships to employees going to designated colleges and/or graduate schools to study job-related subjects</li> </ul>
Financial stability of retirement	<ul style="list-style-type: none"> <li>•Subscription to the national pension plan</li> <li>•KRW 50,000 subsidies to all employees' personal pension plans</li> <li>•Operation of Korea's largest size of corporate credit union, and subsidization of contribution to the corporate credit union upon retirement</li> </ul>
Incentives	<ul style="list-style-type: none"> <li>•Merit-based incentives</li> <li>•Safety incentives</li> </ul>

## An organizational culture built upon communication and trust

Driven by the chairman Cho Yang-ho's commitment to improving the corporate culture and structure through interactive communication and consensus, Korean Air opened the Communication Plaza as a virtual venue for communication in March 2015. It serves as an online channel for sharing ideas and ventilating grievances among employees. The anonymity policy ensures the free exchange of ideas and comments on issues among individuals and teams. Moreover suggestions and questions are addressed by relevant departments with replies and corrections, which further promote interactive, real-time communication within the organization.

Communication Plaza statistics





# Talent Management

## Labor-management cooperation

### Labor union membership

As of the end of December 2018, a total of 12,239 employees are members of the labor union, which is 86% of total employees (20,654) and 69% of total excluding international employees (17,741).

		Union members	Non-unionized employees	Total	Membership rate
General	Korean Air Labor Union	10,452	4,878	15,330	68%
	KCTU(Korean Confederation of Trade Unions)-affiliated industrial union of public transportation	-			-
Flight operations	Pilots' union	1,081	624	2,411	45%
	Pilots' new union	706			29%

\* As the KCTU-affiliated industrial union of public transportation does not disclose its membership status, the figure is not provided in this report.

### Labor-management council

In 2018, labor-management council meetings were held on a quarterly basis to increase mutual understanding and improve these cooperative relationships. At the meetings, participants discussed measures to promote the welfare of union members while pursuing the sound development of the company. Agenda items and opinions from pertinent departments overseen and collected by representatives of each branch were reviewed for decisions on their adoption.





## Shared Growth Management

### Shared growth policy

Korean Air strives to promote shared growth management that enhances cooperation and competitiveness and allows mutual benefit by seeking shared growth with its business partners.

We are operating programs for shared growth based on mutual trust, such as full cash payments to suppliers, technology and equipment calibration support and welfare benefits.

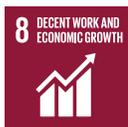
In particular, our aviation and logistics know-how is being utilized to help SMEs improve their export competitiveness while seeking cooperation with related industries. We will continue to develop programs for achieving shared growth based on cooperation with partner SMEs and relate industries.

### Major programs and performance

As of 2018, Korean Air made all payments to all its 795 suppliers in cash in a bid to help improve their liquidity. To create a culture of shared growth, we lend calibration equipment to suppliers and dispatch experts to provide technical support, helping them with their cost savings programs. Moreover, as part of our efforts to boost local production, we are developing aircraft parts, which are currently mainly imported, in cooperation with suppliers to increase their technological strength and sales.

### Korean Air's suppliers

Areas of cooperation	Suppliers	Number of suppliers
General supplies	195 suppliers, including GE On Wing Support Korea and Hyo Sung Printing	195
Manufacturing for the Aerospace Business Division	137 suppliers, including Dongsung TCS and NDT Engineering & Aerospace	137
Aircraft parts and materials for maintenance	110 suppliers, including Dea Dong Metal Finishing and Jupiter Aerospace	110
Facilities construction and maintenance	66 suppliers, including CHANGYOUUSA and YOUWANT SP	66
In-flight meals	61 suppliers, including Taeil Catering and CHEONGWON FOOD&CATERING CORP.	61
In-flight supplies	54 suppliers, including APS and Golden Textile	54
Equipment parts and repair	47 suppliers, including KYEUNGGUM MECHATRONICS and NAMSUNG TRADE	47
In-flight duty-free goods	30 suppliers, including S&B and NAMOO COMPANY	30
Medical supplies	24 suppliers, including Laerdal Medical Korea and Kangil Medical	24
Indirect materials for in-flight meal	23 suppliers, including SUNHA Corporation (the Eumsung factory) and JEIL TTB	23
Food supplies	15 suppliers, including DAERIM AF and IMY F&S	15
Supplies for airport lounges	13 suppliers, including HANOL DNL and Sungjin Placon	13
Vehicle repair	11 suppliers, including HANYANG AUTO MAINT. and KANGSEO Heavy Equipment parts	11
MRO for the Aerospace Business Division	5 suppliers, including Yeonil Tech and Youngnam T&M	5
Oil supply	4 suppliers, including CLEAN ENERGY CO., LTD. and U-NUS INC	4
<b>Total</b>		<b>795</b>





## Shared Growth Management

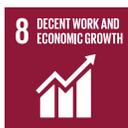
Local production of advanced aircraft wing parts (A320 Shacklet) in partnership with Samwoo Metal Industries was selected as the 2016 Best Practices in Fair Trade Agreements by the Korean Fair Trade Commission. We have made continuous efforts at boosting our suppliers' competitiveness by supporting them in developing key components for Airbus A350 cargo door structures (YUNAM TECH, ASP, SAMCO) and Boeing 747 wing structures in 2017, and for Embraer's E-Jet fuselage structures (NDT Engineering & Aerospace) in 2018.

We are striving to improve safety and the work environments at our suppliers by installing safety signs and replacing outdated heating and cooling equipment at worksites. Employee benefits such as commuter buses and vaccinations are also being provided. In addition, symposiums on quality are held to hear about their challenges and issues and to promote cooperation for shared growth.

In accordance with a 2013 recommendation from the Fair Trade Commission (FTC), we have been signing an annual Fair Transaction and Shared Growth Agreement with aircraft manufacturing suppliers, have implemented the FTC's four action plans, and introduced a standard subcontracting contract form.

### Major shared growth programs

- Cash settlements: paying suppliers in cash instead of issuing notes for their improved liquidity
- Calibration and test equipment support: lending calibration machines to help suppliers save cost
- Local production of previously-imported parts: increasing suppliers' technological strength and sales through co-development
- Technology and training support
- Meetings with CEOs of suppliers and symposiums on quality
- Improvement of a work environment: installing safety signs and upgrading facilities



## Social Contribution

### Korean Air's Social Contribution

Korean Air is engaged in a wide range of corporate philanthropic activities to promote social contribution with local and international communities.

#### Transportation of disaster relief goods

Drawing upon its global logistics and transportation network, Korean Air has been providing rapid transportation of relief supplies in the wake of disasters, including the flooding in Peru in 2017 and the Indonesia earthquake and Laos dam collapse in 2018. Notably, we delivered 40 tons of supplies, including 36,000 liters of drinking water and 2,000 blankets, to the victims of the collapse of Saddle Dam D, part of a larger hydroelectric dam system under construction in Champasak in south-western Laos.

#### Haneul Sarang (Sky Love) English Class

As part of our donation of talent, we have been offering children classes on speaking both everyday and travel English since 2008 at elementary schools around Incheon International Airport where there are few facilities for extracurricular activities. A total of six English-speaking employees from the airport serve as instructors. They not only teach English, but make time for introducing the different types of work conducted at Korean Air.



## Social Contribution

### Global tree planting projects

To respond to global warming issues, in particular, desertification and yellow dust, we have been conducting global tree planting projects. Since 2004, the Korean Air Forest project has been underway in Baganuur, Mongolia with Korean Air employees and local residents and students planting trees every year. As of now, a total of 12,000 trees were planted. Five year ago, Korean Air started to hire local experts for scientific tree management and train local residents to raise awareness on the environment in order to care for the trees in an organized manner. In addition, the 'Korean Air Green Ecological Park' project has been operated since 2017 in China's Kubuqi Desert, which is known as the source of yellow dust in Asia.



### Excellence Program

Launched in 2006, the Excellence Program is one of our major social contribution activities. We have been providing sponsored flights to people who have contributed to raising the international profile of Korea through outstanding achievements in sports, culture, and the arts.





# Social Contribution

## Social contribution areas

### Sharing

- Community volunteering
  - Humble monthly donations
  - Sky Angels' volunteering activities (including bazaars and kimchi-sharing events)
  - Habitat for Humanity
  - Sisterhood ties with rural villages
  - In-house volunteering group activities
- Disaster relief
  - Transportation of disaster relief goods
  - Disaster relief aids
- Global community volunteering



### Dream maker

- Dream Library project in China
- Make Your Dream Come True program
- Haneul Sarang (Sky Love) English Class
- Fascinating Travels with Korean Air program



### Cultural sponsorship

- Sponsorship to Korean language audio guide service at the world's three most famous museums and other locations
- Excellence Program
- Children's Airplane Drawing Contest
- Korean Air Travel Photo Contest



### Environmental protector

- Korean Air Forest in Baganuur Mongolia
- Kubuqi Desert in China
- Arbor Day event of offering free planting kits

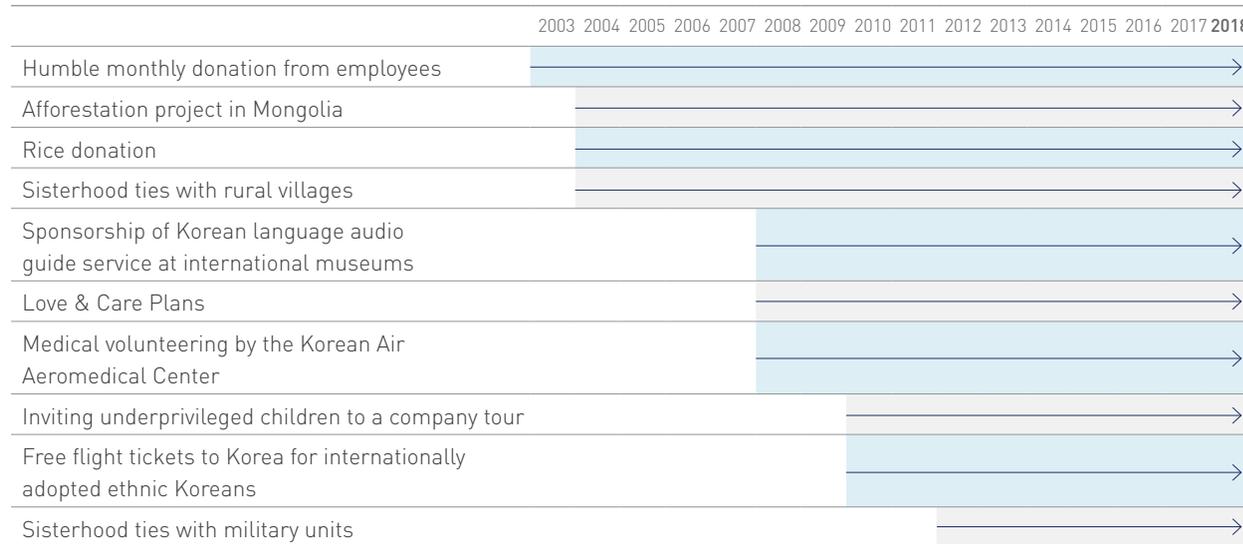


### Sport sponsorship

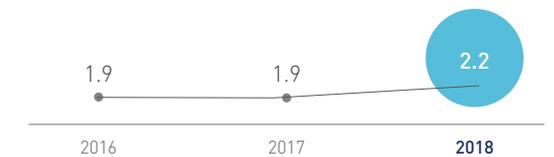
- Official sponsorship for international sport games
- Korean Air Women's table tennis team
- Korean Air Jumbos volleyball team
- Korean Air Chairman Cho Won-Tae serving as the commissioner of Korean Volleyball Federation



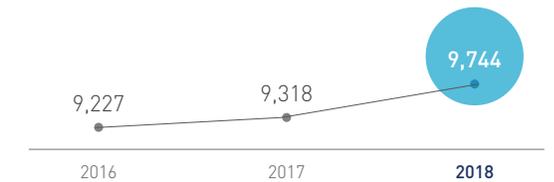
## Activities



Employee volunteer hours (unit: hour)



Social contribution expenses (unit: KRW million)



# Environmental Management

## Environmental management system

Since obtaining ISO14001 certification in 1996, a wide range of efforts have been made by our business division drawing upon our company-wide environment management system in accordance with international standards.

### Our vision, principles and certification on environmental management

#### Vision

'Creating value to promote quality of life in harmony with the environment'

#### Green Management Principles

As a member of the global community, we at Korean Air care about the sustainable future of the earth and we respect the universal values of humanity. We support the following Green Management Principles as a means to fulfil our social responsibilities as a leading global airline. We are working to:

1. Improve flight operation procedures and introduce new aircraft for GHG emissions and noise reduction.
2. Abide by environment laws and regulations at home and abroad and implement stricter internal standards.
3. Minimize our impact on the environment by taking preventive measures and improving environmental performance.
4. Seek continuous improvements in resource and energy conservation and management.
5. Provide employees with training and education for awareness raising and active participation in environmental protection.
6. Promote cooperation with suppliers in green management through communication on environmental issues.
7. Publicly disclose all of our green management efforts and their results in a transparent manner.
8. Protect the global environment and contribute to the development of local communities through international cooperation.

### Environmental management system certification



- Certification standard: ISO14001
- Date of acquisition: Dec. 13, 1996
- Date of renewal: Nov. 27, 2017
- Certification body: British Standards Institution (BIS)
- Scope: All business divisions (overseas offices excluded)
  - 1) General (flight operations, passenger/cargo transportation, cabin service, and administrative headquarters)
  - 2) Maintenance and engineering (Gimpo, Incheon, and Bucheon bases)
  - 3) Catering (Gimpo and Incheon catering centers)
  - 4) Aircraft manufacturing (Aerospace Business Division)

### Environment management strategies and goals in 2019

Proactively complying with and responding to environmental regulations and policies

Responding to regulations

Strengthening communication

Improving operation and management of facilities

### Internal environmental audit

We have been training internal auditors to perform an annual environmental audit. Countermeasures are taken for any identified issues based on the recommendations of the auditors, and the results are reported to top management. The recommendations from these audits are becoming stricter with the strengthening of environmental management system standards and the growing awareness of environmental risks.

### Recommendations from the 2018 internal environmental audit

- Strengthening environmental management for on-site suppliers: stipulating roles and responsibilities of suppliers, and workers' compliance with laws and regulations in contracts; and reflecting environmental compliance of suppliers in their quality evaluation.
- Identifying potential environmental risks such as civil complaints of noise stemming from test operation of aircraft after maintenance
- Managing a register on compliance obligations of new laws and regulations



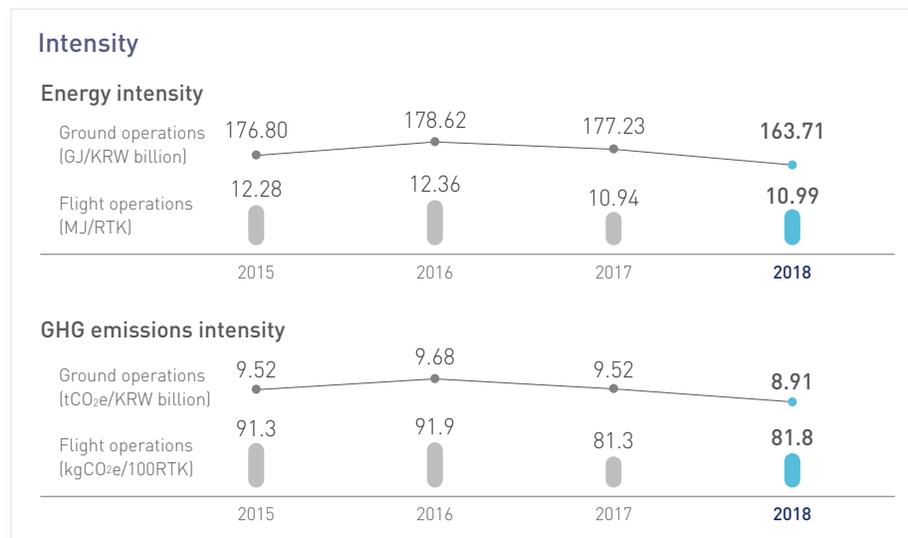
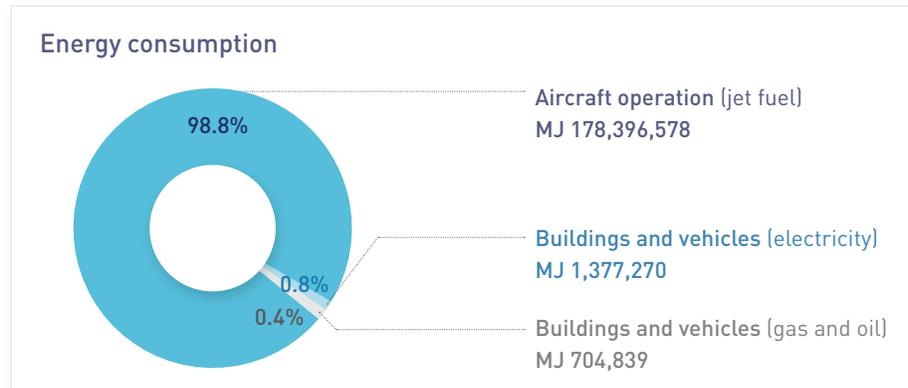


# Environmental Management

## Energy and GHG

### Energy consumption and GHG emissions

Jet fuel for aircraft operations accounts for 99% of energy consumed by Korean Air. In 2018, 4.2 million tons of jet fuel were used at a cost of USD 3 billion (KRW 3.3 trillion). Considering that energy efficiency is directly translated into business performance in the aviation industry, considerable efforts are underway to improve energy intensity.



## Water and air pollutants

Despite increasing requirements on aircraft maintenance, water and air pollutant emissions are stably managed within internal standards, which are applied at a level 50% stricter than the legal requirements.

Pollutant emission level (%)		2016	2017	2018
Water	Minimum	0.05	0.04	0.03
	Average	9.58	11.04	11.23
	Maximum	49.80	87.80	75.00
Air	Minimum	0.00	0.00	0.97
	Average	14.51	12.32	11.73
	Maximum	70.00	70.00	82.78

## Biodiversity

Korean Air is participating in international efforts to protect biodiversity, acknowledging the role played by air carriers. Rather than simply complying with the Convention on International Trade in Endangered Species of Wild Fauna and Flora adopted by the International Union for Conservation of Nature, we have banned the shipment of shark fins since 2013 in an effort to protect these at-risk creatures. In addition, the IATA is among the signatories to the United for Wildlife Transport Taskforce Buckingham Palace Declaration which condemns the illegal trade in wildlife and wildlife products and pledges to join forces in the fight against the trafficking of protected species. Korean Air is firmly supporting these efforts.



## Environmental Management

### Waste

We are disinfecting and disposing of in-flight food waste to prevent infectious diseases in accordance with the guidelines of the Animal and Plant Quarantine Agency. In-flight waste has been rising steadily with increasing passenger transportation volumes, but waste paper has been decreased by using electronic documents and lightening the weight of supplies loaded on airplanes. Meanwhile, we are paying disposal charges for waste to be incinerated or sent to a landfill according to the 2018 revision of the Framework Act on Resource Circulation.

		2016	2017	2018
Waste generated (tons)	General	26,667	26,848	<b>27,900</b>
	Hazardous	812	816	<b>988</b>
	Total	27,479	27,664	<b>28,888</b>
Waste recycling rate (%)	General	38.3	36.9	<b>35.0</b>
	Hazardous	28.9	29.4	<b>22.2</b>
	Total	38.0	36.7	<b>34.5</b>

### Hazardous chemicals

When conducting aircraft maintenance, we must only use the chemical products designated by aircraft manufacturers. Korean Air is in continuous communication with them to address the issues of harm from the use of these products. Under a newly-developed chemical management system, the inventory-in/-out of chemicals and their use are managed by worksite, and the use of hazardous chemicals is being strictly controlled. In addition, an ongoing program of replacing chemicals with more environmentally-friendly substances is being conducted using a review process according to the environmental management system.

### Noise

#### Efforts at reducing flight operation noise

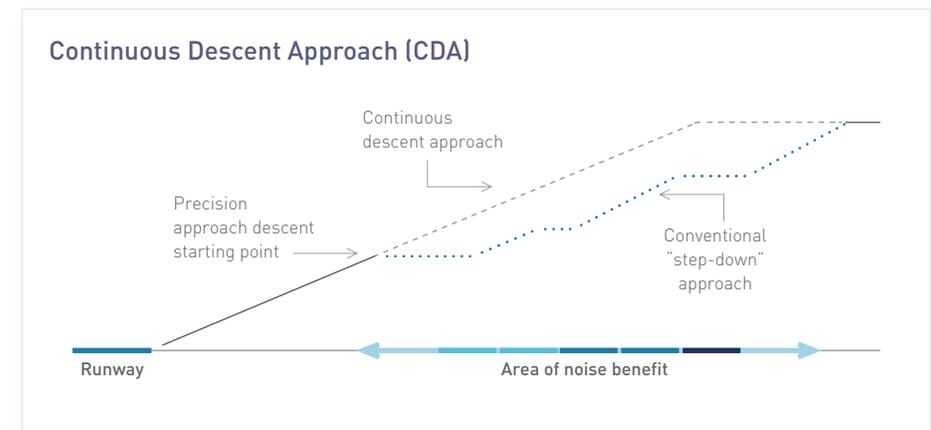
Noise stemming from landing, take-off, taxiing, and engine test operations can cause inconvenience to people residing near airports. In response, Korean Air is

introducing new types of aircraft for noise reduction and is paying noise surcharges at domestic and international airports.

In addition, we fully comply with all international airport noise-reduction procedures and have adapted the ICAO's landing and take-off approaches to meet different needs. Meanwhile, fuel-saving methods that also allow noise-reducing effects are being implemented to address the inconvenience of local communities near airports.

#### Implementation of noise-reduction means

The ICAO and government aviation agencies recommend noise abatement procedures for landing and take-off. Noise Abatement Departure Procedures (NADP) are aimed at reducing noise by adjusting flaps and thrust at take-off. They are classified as NADP 1 and NADP2 according to the distance between the airport and the areas affected. A Continuous Descent Approach (CDA) allows a reduction of fuel consumption and noise through a smooth, constant-angle descent to landing. Idle reverse thrust minimizes unnecessary reverse thrust in consideration of runway conditions and landing weight. One-engine taxi-in, which can be applied according to aircraft type and landing conditions, also provides fuel savings. We include and apply these noise-reduction techniques in our flight operation regulations and procedures by aircraft type to meet the requirements of airports.

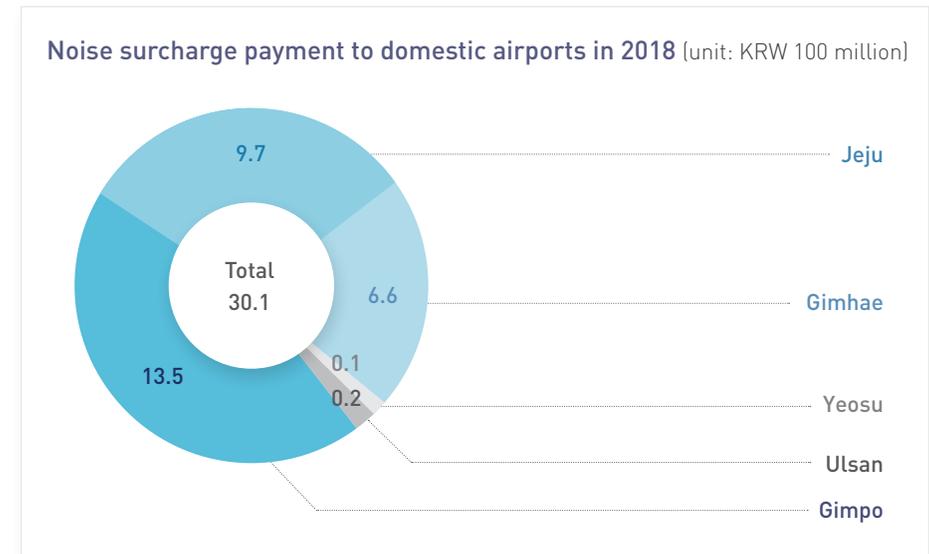
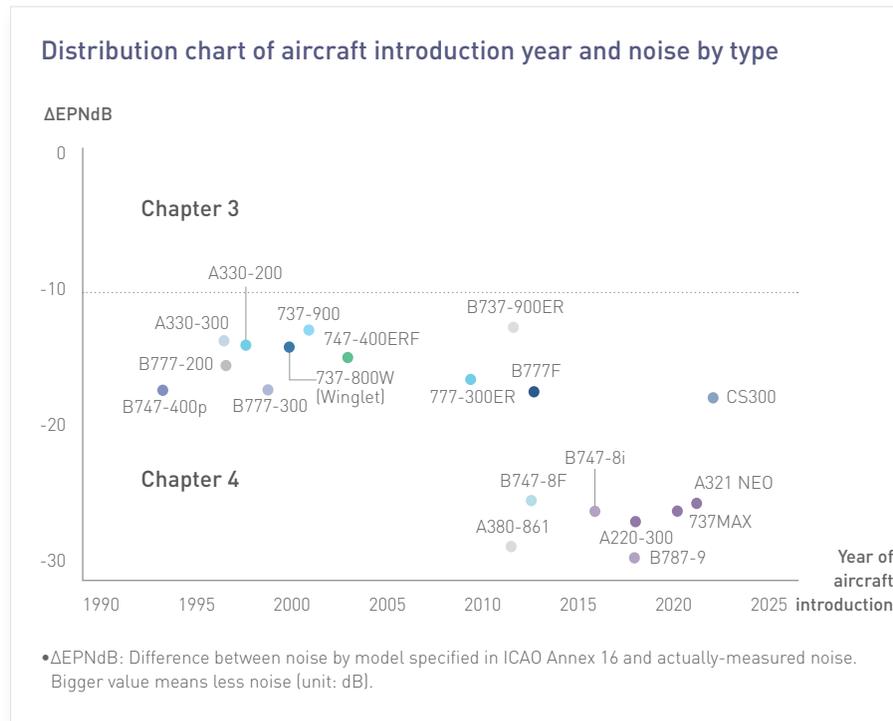


## Environmental Management

### Introduction of new aircraft generating less noise and payment of noise surcharges

Replacing older aircraft with newer models generating less noise is the surest means of noise reduction. All Korean Air aircraft meet the ICAO Chapter 4 criteria and the latest models tend to have lower  $\Delta$ EPNdB, a measure of aircraft noise that has been used since 2018 to calculate noise surcharges in Korea.

Regarding the noise that inevitably occurs despite these efforts, we are supporting noise reduction measures for people living near airports by faithfully paying all required surcharges. These are used for supporting noise-affected areas, such as through soundproof housing construction and installation of soundproofing walls. In addition, we are also building facilities to abate noise from test operation of engines after maintenance.





## Risk Management

We have established rules and guidelines that define potential risks to the company, designate the responsible organization, clarify their missions, and delineate emergency response measures. These allow our employees to respond systematically to risks and subsequently minimize economic loss, damage to our corporate image, and disturbances within the company.

### Non-financial risks

#### Strategic and operational risk

A council consisting of the heads of business divisions meets to review economic, environmental, and social trends from a company-wide perspective as a means to maximize corporate value. In addition, internal audits are conducted to assess potential risks by business division and ensure the efficient use of resources.

#### Regulatory risk

A regular monitoring system is in place to ensure compliance with laws and regulations, and a considerable portion of our resources, including the legal department and in-house legal experts, are allocated to proactively manage regulatory risks. We also have the Compliance Program as a means to prevent the risk of unlawful transaction.

#### Event risk

The Corporate Safety, Security & Compliance Team was set up to ensure integrated and effective management of all safety and security matters in preventing aircraft accidents, hijacking and other accidents while minimizing losses. Regulations, guidelines and manuals pertaining to accident response are available. The emergency response system is additionally evaluated periodically along with company-wide drills and training.

#### Environmental risk

A wide range of efforts are underway, including company-wide environmental risk prevention activities, rules on accident/crisis response, and practice drills for potential oil and chemical leaks by the pertinent departments. In addition, we are developing short-cut routes and adopting high fuel-efficiency aircraft to minimize negative impact on the environment.

### Financial risks

#### Exchange rate risk

Korean Air conducts transactions in foreign currencies and is exposed to risks arising from exchange rate volatility. As for US dollars, expenditures currently surpass income and the existing currency accounts for a high percentage of our foreign-currency loans. Therefore, exchange fluctuations considerably impact profit/loss and cashflow.

We are reducing the percentage of borrowing in US dollars through currency diversification based on currencies in surplus, and currency derivatives contracts are signed within approved limits. In addition, our cash management system allows us to monitor income and expenditures and maintain proper balances by currency in order to reduce exchange risks.

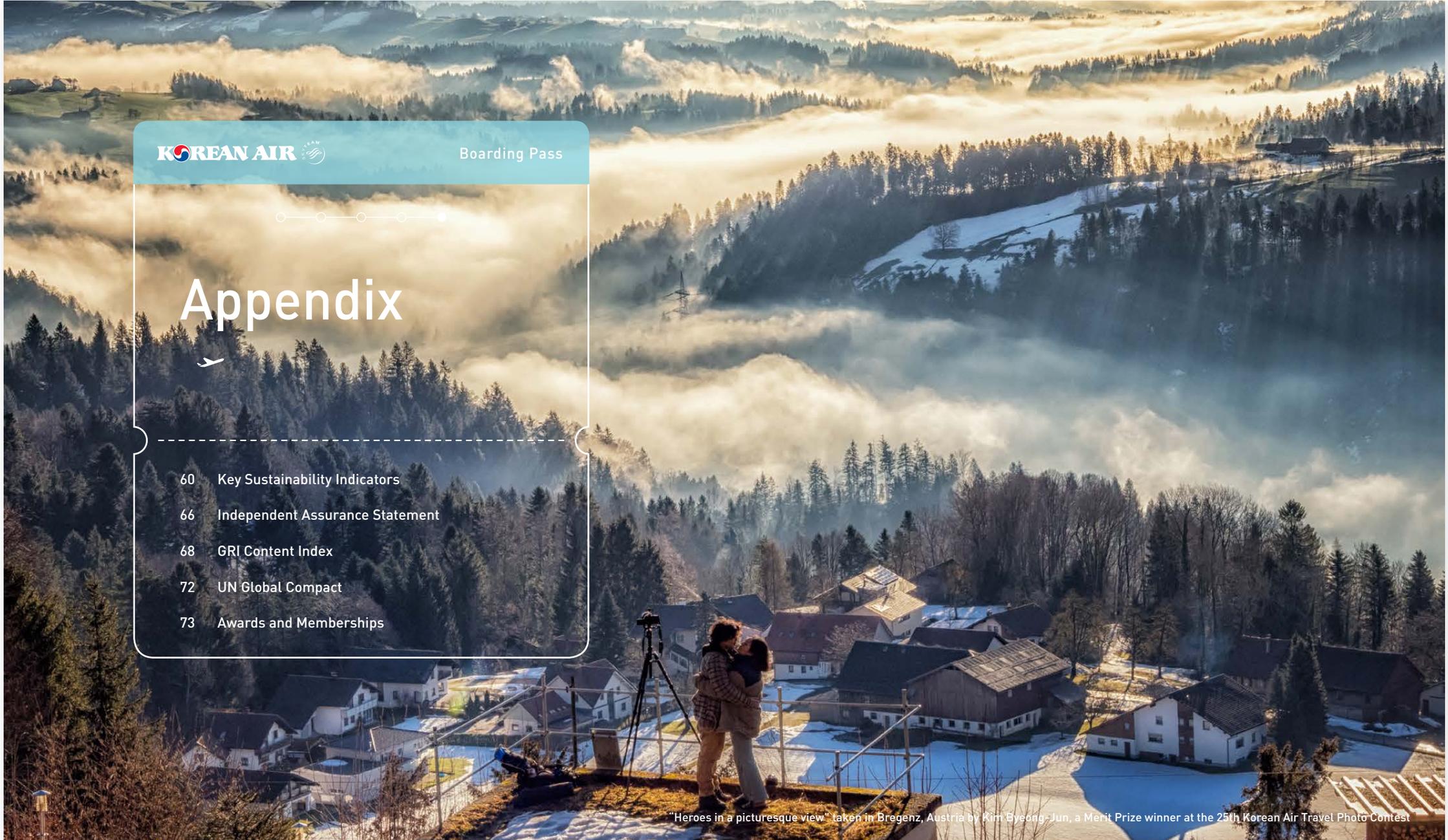
#### Interest rate risk

Korean Air borrows funds at fixed and variable interest rates. Floating-rate loans linked to a benchmark rate, such as the LIBOR rate, impact profit/loss and cashflow with changes in the benchmark rate. We work to maintain an optimal ratio between fixed-rate and floating-rate borrowing and enter into interest rate swaps considering current interest rates and government policies in key currencies.

#### Oil price risk

As oil purchases account for a high percentage of operating costs, changes in oil prices impact profit/loss and cashflow. Market prices for petroleum products such as jet fuel fluctuate with various factors, including crude oil production volume, demand forecasts, inventory levels, speculative demand in the commodity market, and shale gas production. Our annual jet fuel consumption currently reaches 33 million barrels, and we are managing oil price risks through fuel surcharges and derivative trading.





Boarding Pass

# Appendix

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"Heroes in a picturesque view" taken in Bregenz, Austria by Kim Byeong-Jun, a Merit Prize winner at the 25th Korean Air Travel Photo Contest



## Key Sustainability Indicators

### Economic Performance

(KRW in million)

based on separate financial statements

	2016	2017	2018
<b>Sales</b>			
Sales	11,502,877	11,802,819	12,655,496
Cost of sales	9,218,012	9,660,188	10,639,160
Gross profit	2,284,865	2,142,631	2,016,336
Selling and administrative expenses	1,205,861	1,186,480	1,348,942
Operating profit (loss)	1,079,004	956,151	667,394
Non-operating operating profit and loss	(1,821,094)	261,973	(802,665)
Net profit (loss) before tax	(742,090)	1,218,124	(135,271)
Tax expense (profit)	(150,729)	310,244	(27,869)
Net profit (loss)	(591,361)	907,880	(107,402)
<b>Assets</b>			
Current assets	2,875,642	3,219,951	3,570,196
Non-current assets	19,830,396	20,203,116	20,803,153
Total assets	22,706,038	23,423,067	24,373,349
Current liabilities	8,269,323	6,594,635	7,488,655
Non-current liabilities	12,783,569	13,156,304	13,862,806
Total liabilities	21,052,892	19,750,939	21,351,461
Capital stock	369,753	479,777	479,777
Other paid-in capital	1,153,265	1,855,996	1,673,931
Other capital components	327,977	646,211	580,288
Retained earnings	(197,849)	690,144	287,892
Total capital	1,653,146	3,672,128	3,021,888
Total liabilities and equity	22,706,038	23,423,067	24,373,349





# Key Sustainability Indicators

## Social performance

			2016	2017	2018
<b>Employees</b>					
Total employees			20,844	20,363	20,654
Gender	Male	Person(s)	11,655	11,551	11,632
	Female	Person(s)	9,189	8,812	9,022
Age	Below 30	Person(s)	4,761	4,050	3,886
	30-39	Person(s)	6,617	6,454	6,623
	40-49	Person(s)	6,141	6,197	5,997
	50 and above	Person(s)	3,325	3,662	4,148
Region	Domestic	Person(s)	18,620	18,330	18,665
	Overseas	Person(s)	2,224	2,033	1,989
Permanent	Male	Person(s)	10,956	10,904	10,973
	Female	Person(s)	7,620	7,795	7,952
Temporary	Male	Person(s)	699	647	659
	Female	Person(s)	1,569	1,017	1,070
Administrative (permanent)	Male	Person(s)	2,798	2,933	3,105
	Female	Person(s)	1,294	1,422	1,607
General	Male	Person(s)	8,158	7,971	7,868
	Female	Person(s)	6,326	6,373	6,345
Female	Percentage of female managers	%	32	33	34
<b>Local employment</b>					
Local employees	Employees at overseas regional offices	Person(s)	2,499	2,281	2,228
	Percentage of local employees	%	91	89	89
	Percentage of local managers	%	14	14	13
	Percentage of female employees	%	59	57	57



# Key Sustainability Indicators

## Social performance

			2016	2017	2018
<b>Maternity protection system</b>					
Taking a leave after/before childbirth	Taking a leave after/before childbirth	Case(s)	682	600	591
	Returning-to-work rate	%	100	100	100
	Maternity leave	Person(s)	446	446	396
Parental leave	Parental leave	Person(s)	670	619	606
	One-year retention rate after returning to work	%	84	89	88
	Percentage of male employees taking parental leave	%	4.3	6.0	8.6
<b>Employee training</b>					
Performance	Training hours per employee	Hour(s)	89	76	89
	Online training programs	Program(s)	1,164	1,669	2,117
Lifelong learning support	Graduate school scholarships for employees	Person(s)	140	120	101
<b>Social contribution</b>					
Performance	Volunteer hours per employees	Hour(s)	1.9	1.9	2.2
	Social contribution expenses	KRW million	9,227	9,318	9,744
<b>Data security</b>					
Data security training	Domestic	Person(s)	24,646	25,220	33,459
	Overseas	Person(s)	5,819	5,482	5,152
Customer privacy	Number of customer data breach reports	Case(s)	0	0	0
<b>Pension funds and contributions</b>					
National Pension System		KRW 100 million	374.9	391.9	413.2
Personal pension		KRW 100 million	101.0	102.3	104.5
Contribution to the corporate credit union		KRW 100 million	117.3	120.4	126.8
Total		KRW 100 million	593.2	614.6	644.5





# Key Sustainability Indicators

## Environmental performance

			2016	2017	2018
<b>Fuel and energy</b>					
Aircraft operations	Jet fuel	tons	4,174,377	4,179,211	4,168,144
Ground operations Direct energy use	Gas/Diesel	GJ	114,988	108,640	110,434
	By-product fuel No. 1	GJ	14,939	13,271	12,638
	By-product fuel No. 2	GJ	276,276	286,852	282,627
	Gasoline	GJ	11,114	10,609	10,793
	Jet fuel	GJ	22,471	14,216	10,351
	LNG	GJ	260,097	265,778	270,903
	LPG	GJ	6,246	6,082	7,093
Indirect energy use	Electricity	GJ	1,320,069	1,357,395	1,348,387
	Medium-temperature water (steam)	GJ	28,435	29,043	28,883
Energy intensity	Aircraft operations	MJ/RTK	12.36	10.94	10.99
	Ground operations	GJ/KRW billion	178.62	177.23	163.71
<b>GHG emissions</b>					
GHG emissions from aircraft operations	Scope1	tCO <sub>2</sub> eq	13,283,086	13,302,627	13,267,107
GHG emissions from ground operations	Scope1	tCO <sub>2</sub> eq	44,473	45,208	45,942
	Scope2	tCO <sub>2</sub> eq	65,379	67,207	66,768
GHG emissions intensity	Aircraft operations	kg_CO <sub>2</sub> e/100RTK	91.9	81.3	81.8
	Ground operations	ton_CO <sub>2</sub> e/KRW 1 billion	9.68	9.52	8.91
<b>GHG emissions reduction</b>					
GHG emissions reduction	Lasting effect	tCO <sub>2</sub>	258,203	253,827	263,939
	Permanent effect	tCO <sub>2</sub>	8,106	10,005	14,178
	Total	tCO <sub>2</sub>	266,310	263,831	278,117





# Key Sustainability Indicators

## Environmental performance

			2016	2017	2018
<b>Water resource</b>					
Water consumption	Quantity of water intake	tons	1,475,831	1,400,279	1,512,526
	Surface water	tons	-	-	-
	Ground water	tons	221,183	213,947	240,069
	Water utility and other supply systems	tons	1,254,648	1,186,332	1,272,457
Water recycling	Recycled amount	tons	25,117	24,979	18,428
	Recycling rate	%	1.7	1.8	1.2
Pollutant discharge	BOD	tons	47.157	29.977	47.665
	COD	tons	14.929	13.625	18.407
	SS	tons	16.768	8.856	12.876
	T-N	tons	2.213	2.593	2.123
	T-P	tons	0.616	0.686	0.822
<b>Air</b>					
Air pollutant emissions	Dust	tons	16	17	14
	THC	tons	32	32	23
	NO <sub>x</sub>	tons	70,155	70,409	70,377
	SO <sub>x</sub>	tons	7	10	6
	SO <sub>2</sub>	tons	4,152	4,160	4,150



## Key Sustainability Indicators

### Environmental performance

			2016	2017	2018
<b>Waste</b>					
Amount of waste generated	General	tons	26,667	26,848	27,900
	Hazardous	tons	812	816	988
	Total	tons	27,479	27,664	28,888
Percentage of recycling	General	%	38.3	36.9	35.0
	Hazardous	%	28.9	29.4	22.2
	Total	%	38.0	36.7	34.5
Waste disposal	Incineration	tons	16,586	17,074	18,429
	Landfill	tons	440	442	485
	Recycling	tons	10,452	10,149	9,974
<b>Environmental education</b>					
Environmental education	Basic training	man-hour	3,032	1,701	5,377
	Job-specific training	man-hour	1,256	1,258	1,354
	On-the-job training	man-hour	3,296	2,203	2,166

# Independent Assurance Statement

## Dear Korean Air Management and Stakeholders

### Introduction

The Korean Standards Association (“KSA”) was commissioned by Korean Air to perform a third- party Assurance Engagement of ‘Korean Air sustainability Report 2019’ (the “Report”). KSA presents independent opinions as follows as a result of the feasibility of the data contained in this Report. Korean Air has sole responsibility for content and performance contained in this Report.

### Independence

As an independent assurance agency, KSA does not have any kinds of commercial interest in businesses of Korean Air apart from undertaking a third-party assurance on the Report. We have no other contract with Korean Air that may undermine credibility and integrity as an independent assurance agency.

### Assurance Standards and Level

This Assurance Engagement followed the AA1000AS (2008 with 2018 addendum) assurance standards to provide Moderate Level assurance. We checked the four principles of inclusivity, materiality, responsiveness, and impact in combination with information credibility of the Report. We also reviewed whether the Report content was created in accordance with the GRI Standards.

### Assurance Type and Scope

This Assurance Engagement followed the AA1000AS (2008) assurance standards to provide Type 2 assurance, which means that the assurance assessed the accuracy and reliability of the company’s statements and performance data provided in the Report. The assurance scope is from January 1, 2018, to December 31, 2018, and the assurance focused on systems and activities including policies and goals, businesses and programs, standards, and achievements of the Company’s sustainability management. While the company’s environmental and social data, as well as financial data, was verified, the scope of review concerning stakeholder engagement was limited to the materiality test process.

### Assurance Methodology

We used the following methods to gather information, documents, and evidence concerning the assurance scope.

- Research and analyses on the articles related to Korean Air’s sustainability management published by media outlets
- Research on the company issues selected by consultation with Korean Ai

- In-person visit and interviews with managers of related issue and sustainability manager
- Review of the management system and process used in improving the performance of sustainability management and preparing the Report
- Review of the consistency between the financial performance data and the company’s audit report/publicly announced data
- Examination of internal documents and basic materials

### Assurance Results and Opinions [On an assurance principle/process level]

KSA reviewed the draft version of this Report to present our opinions as an assurance provider. Modifications were made of the Report content if deemed necessary. We were not aware of any significant errors or inappropriate descriptions in this Report as a result of our Assurance Engagement. As such, we present our opinions of the Korean Air Sustainability Report 2019 as follows.

#### • Inclusionity Has Korean Air engaged its stakeholders in strategically responding to sustainability?

KSA believe Korean Air is aware of the importance of stakeholder participation and is making an all-out effort to establish a process that will increase their participation. Korean Air has selected stakeholders including government and related organizations, employees, corporate customers, individuals, partner companies, local communities and local government body to receive diverse feedback and opinions.

#### • Materiality as Korean Air included material information in the Report to help stakeholders make informed decisions?

We are not aware of any significant omissions or exclusions of data that is material to stakeholders. We verified that Korean Air conducted materiality test with issues identified from analyses of internal and external environments and reported according to the result.

#### • Responsiveness Has Korean Air appropriately responded to stakeholder requirements and interest in this Report?

We verified that Korean Air responded to stakeholders’ needs and interests through reflecting stakeholders’ opinions in the Report. We are not aware of any evidence that Korean Air’s response to significant issues of stakeholders was reported inappropriately.

#### • Impact Has Korean Air appropriately monitored its impact on the stakeholders?

We verified that the Korean Air is monitoring and assessing its impact on the stakeholders by conducting an enhanced verification of its standard business activities. Furthermore, it has been verified that Korean Air appropriately publishes its findings in the Report.



# Independent Assurance Statement

## GRI Standards Application

We confirmed that this Report was prepared in accordance with GRI Standards Core Option. Based on data Korean Air provided, we also confirmed the validity of the contents related to General Standard Disclosure and Specific Standard Disclosure.

### •Universal Standards

We have verified that the Report complied(s) with the requirements of the Universal Standards of Core Option, and (have) reviewed the following disclosures: 102-1 to 102-13(Organizational profile), 102-14 to 102-15(Strategy), 102-16 to 102-17(Ethics and Integrity), 102-18(Governance), 102-40 to 102-44(Stakeholder Engagement), 102-45 to 102-56(Reporting Practice), 103(Management Approach)

### •Topic-specific Standards

We have checked the material topics identified from a materiality test process in which content to be disclosed. We examined disclosures below:

- Economy: 201-1, 205-2, 206-1
- Environment: 302-1, 302-3, 302-4, 305-1, 305-2, 305-4, 305-5, 305-7, 306-2
- Social: 401-2, 401-3, 402-1, 403-3, 404-1, 404-2, 413-1, 416-1, 417-2, 417-3, 418-1

## Opinions and Recommendations [Performance /Issues]

We present the following recommendations to help Korean Air establish a company-wide sustainability management strategy and respond to continuous issues of sustainability.

### •Economic

Korean Air is 'a global airline, leading airline industry worldwide', based on the founder's pioneering spirit and the late Chairman's innovating spirit. On this year of 50th anniversary, under the founding philosophy 'A company is the sum of its people', Korean Air is propelling sustainable management activities such as global talent training, convey of communal prosperity including society, customer, shareholders and company participants. To successfully achieve sustainable management, it is crucial to secure achievement-based, responsible management, it is essential to have transparency in accounting and high level of transparent management. Therefore, rather than a short-term approach, it is advised to increase continuous and comprehensive response accompanied by consistent management on financial and non-financial risks and the ability for proactive respond in management environment changes.

### •Environment

Korean Air has included an in-depth report on the response to the environment and climate change. It reflects advanced and positive action in terms of the company's sustainability and communication with stakeholders. Especially, it is outstanding for the company to set 3 major goals on climate change with corresponding 4 major strategies and elaborate report accordingly. In the future, it is advised to display commitment and management philosophy of top management on environmental issues in the sustainability context, with the report content of wider range and in-depth on achievements of analyzing risk and opportunities resulting from the changes in policies and regulations on the climate change.

### •Social

Korean Air has clearly defined the standards and range of organization and related stakeholders. In the future, it is advised to report the interests of each stakeholder group, communication channels, detailed participation method, and frequency in a systematic sense. Recently, the importance of non-financial risk management is increasing. As the case such as non-financial risks such as company reputation, anti-corruption, safety and environment affecting financial achievements is frequently observed, it is advised to be shared with the stakeholders on thorough prevention on non-financial risks and transparent post-process.

July 2019

Sang-Jin Lee, KSA Chairman & CEO



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Licensed Assurance Provider  
000-81

이 상진

The Korean Standards Association (KSA), established as a special corporation in accordance with the Law for Industrial Standardization in 1962, serves as a knowledge service provider that distributes and disseminates such services as industrial standardization, quality management, sustainability management, KS certification and ISO certification. The KSA is committed to the sustainable development of Korean society as an ISO 26000 national secretary, certified GRI training partner, AA1000 assurance provider, KSI (Korea Sustainability Index) operator, and UN CDM DOE (development operational entity), and as an assurance provider of the Korean government's greenhouse gas energy target management system.



# GRI Content Index

Topic	Disclosure	page	
GRI 102: General			
Organizational profile	102-1	Name of the organization	8
	102-2	Activities, brands, products, and services	9~10
	102-3	Location of headquarters	8
	102-4	Location of operations	11
	102-5	Ownership and legal form	8
	102-6	Markets served	11
	102-7	Scale of the organization	8~10
	102-8	Information on employees and other workers	8, 61
	102-9	Supply chain	49
	102-10	Significant changes to the organization and its supply chain	The 2018 annual report, page 8-12
	102-11	Precautionary Principle or approach	33, 54
	102-12	External initiatives	72
	102-13	Membership of associations	72~73
Strategy	102-14	Statement from senior decision-maker	5
	102-15	Key impacts, risks, and opportunities	58
Ethics and integrity	102-16	Values, principles, standards, and norms of behavior	6~7, 27
	102-17	Mechanisms for advice and concerns about ethics	27~28
Governance	102-18	Governance structure	25~26
Stakeholder engagement	102-40	List of stakeholder groups	20
	102-41	Collective bargaining agreements	48
	102-42	Identifying and selecting stakeholders	20
	102-43	Approach to stakeholder engagement	Stakeholder interviews and questionnaires
	102-44	Key topics and concerns raised	23





# GRI Content Index

Topic	Disclosure	page
Material topics and their Boundaries, and information about the report	102-45	Entities included in the consolidated financial statements The 2018 annual report, page 3-4
	102-46	Defining report content and topic Boundaries 22-23
	102-47	List of material topics 23
	102-48	Restatements of information N/A
	102-49	Changes in reporting 22
	102-50	Reporting period 2
	102-51	Date of most recent report Aug. 2018
	102-52	Reporting cycle 2
	102-53	Contact point for questions regarding the report 2
	102-54	Claims of reporting in accordance with the GRI Standards 2
	102-55	GRI content index 68-71
	102-56	External assurance 66-67





# GRI Content Index

Topic	Disclosure		page
GRI 200: Economy			
GRI 201: Economic performance 2016	MA	Management approach disclosures	8~11, 14~17
	201-1	Direct economic value generated and distributed	20
GRI 205: Anti-corruption 2016	MA	Management approach disclosures	24
	205-2	Communication and training about anti-corruption policies and procedures	28
GRI 206: Anti-competitive Behavior 2016	MA	Management approach disclosures	24
	206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	The 2018 annual report, page 408-409
GRI 300: Environment			
GRI 302: Energy 2016	MA	Management approach disclosures	33, 54
	302-1	Energy consumption within the organization	55, 63
	302-3	Energy intensity	55, 63
	302-4	Reduction of energy consumption	34~36, 63
GRI 303: Water 2016	MA	Management approach disclosures	-
	303-1	Interactions with water as a shared resource	64
	303-3	Water withdrawal	64
GRI 304: Biodiversity 2016	MA	Management approach disclosures	-
	304-2	Significant impacts of activities, products, and services on biodiversity	55
GRI 305: Emissions 2016	MA	Management approach disclosures	33, 54
	305-1	Direct (Scope 1) GHG emissions	63
	305-2	Direct (Scope 2) GHG emissions	63
	305-4	GHG emissions intensity	55
	305-5	Reduction of GHG emissions	34, 36, 63
GRI 306: Effluents and waste 2016	MA	Management approach disclosures	-
	306-2	Waste by type and disposal method	56, 65
GRI 307: Environmental compliance 2016	MA	Management approach disclosures	-
	307-1	Significant fines and non-monetary sanctions for non-compliance with environmental laws and/or regulation	No cases of violation





# GRI Content Index

Topic	Disclosure		page
GRI 400 : Social disclosures			
GRI 401: ployment 2016	MA	Management approach disclosures	45
	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	47
	401-3	Parental leave	45, 62
GRI 402: Labor/Management relations 2016	MA	Management approach disclosures	48
	402-1	Minimum notice periods regarding operational change	50 days for layoff; 30 days for dismissal; and when changes in business operations occur
GRI 403: Occupational health and safety 2016	MA	Management approach disclosures	29~32
	403-3	Occupational health services	46
GRI 404: Training and education 2016	MA	Management approach disclosures	46
	404-1	Average hours of training per year per employee	62
	404-2	Programs for upgrading employee skills and transition assistance programs	46
GRI 413: Local communities 2016	MA	Management approach disclosures	51~53
	413-1	Percentage of operations with implemented local community engagement, impact assessments, and/or development programs	51~53
GRI 416: Customer health and safety 2016	MA	Management approach disclosures	29
	416-1	Assessment of the health and safety impacts of product and service categories	30~32
GRI 417: Marketing and labeling 2016	MA	Management approach disclosures	39
	417-2	Incidents of non-compliance concerning product and service information and labeling	No cases of violation
	417-3	Incidents of non-compliance concerning marketing communications	No cases of violation
GRI 418: Customer privacy 2016	MA	Management approach disclosures	39
	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	43





# UN Global Compact

The UN Global Compact is an international agreement initiated by the United Nations that calls on companies to align strategies and operations with ten principles on human rights, labor, the environment and anti-corruption efforts. Since we joined the program in support of these principles in July 2007, we have been submitting the CoP (Communication on Progress) and will continue to work on their implementation.

Area	Principles	Reporting pages
Human rights	1. We support and respect the protection of internationally proclaimed human rights	27-28
	2. We make sure that we are not complicit in human rights abuse.	45-48
Labor	3. We uphold the freedom of association and effective recognition of the right to collective bargaining.	45-48
	4. We uphold the elimination of all forms of forced and compulsory labor.	
	5. We uphold the effective abolition of child labor.	
	6. We uphold the elimination of discrimination in employment and occupation.	
Environment	7. We support a precautionary approach to environmental challenges.	33-38
	8. We undertake initiatives to promote greater environmental responsibility	54-57
	9. We encourage the development and diffusion of environment friendly technologies.	
Anti-corruption	10. We work against corruption in all its forms, including extortion and bribery.	27-28





## Awards and Memberships

Awards	Awarded by	Date
Best Cross-Border Securitization	The Asset	2018. 1. 7
Best Service for Passengers with Children and Disabled Passengers	Skyway	2018. 2. 6
Cellars in The Sky Award 2017 - First place in the business class red wine category - Third place in the first class red wine category	Business Travler	2018. 2. 19
The 26th Consumer's Choice Advertising Award - TV Ad	Korea Advertisers Association	2018. 3. 22
2018 Effie Awards Korea - In the media innovation category - In the brand experience category	Effie Korea	2018. 6. 14
First place in the air passenger transport services sector of the Global Customer Satisfaction Competency Index (GCSI)	Global Management Association	2018. 6. 21
'Airline of the Year' Award - Best Economy	Airlineratings.com	2018. 11. 14
Award for Company with Excellent CSR Strategy	Embassy of the Republic of Korea in China	2018. 12. 21

Category	Associations/Organizations
Aviation	IATA(International Air Transport Association), AAPA(Association of Asia Pacific Airlines), SkyTeam, Korea Civil Aviation Association, Aviation Management Society of Korea, Federation of Korea Aeronautics, Korea Aeronautical Engineers' Association, Korean Association of Air and Space Law, Korean Society for Aeronautical & Space Sciences, Korean Society for Composite Materials, Korea Institute of Military Science and Technology, Society for Aerospace System Engineering, Korean Society of Propulsion Engineers, Korea Association of Defense Industry Studies, Korea Remotely Piloted Aircraft Safety Association, Korea UVS Association, Korea Defense Industry Association, Korea Aerospace Industries Association, Korea Industrial Technology Association, Daedeok Innopolis Defense Industries Committee, Korea Aerospace Technology Research Association, Korean Defense Industry Council on Security, Korea Fire Safety Association
Economy	Korea Business Council for Sustainable Development, Business Institute for Sustainable Development, Federation of Korean Industries, Korea Economic Research Institute, Korea Employers Federation, Korea Chamber of Commerce and Industry, Federation of Economic organizations, Korea-US Economic Council, Korea-Japan Economic Association, Korea Listed Companies Association, Korea Exchange, Korea Customs Logistics Association, International Management Institute of the Federation of Korean Industries, Korea International Trade Association
Environment	Green Companies Council, Gangseo Business Group for Environmental Practices, Voluntary Agreement of the Aviation Industry on GHG Reductions
Society	UN Global Compact, Asia Society Korea Center, Korea AEO Association, Korea Management Association, Korean Council on the Protection of Personal Information, Korea-Mongolia Forum, Korea Defense Transportation Association, Korea Support Committee for the International Vaccine Institute

