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China Southern Airlines Company Limited

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The publication of this report aims to be environmentally-friendly This report is printed on recycled paper, 100% soy ink was used to reduce air pollution 2018 Corporate Social Responsibility Report



2018 China Southern Airlines Co., Ltd Corporate Social Responsibility Report



About This Report





This is the 12th Corporate Social Responsibility Report of China Southern Airlines Company Limited (aka "we", "the Company", "China Southern" and/or "China Southern Airlines").

With the underlining theme "Sunshine China Southern Actively Performs Its Social Responsibilities as a Central State-Owned Enterprise", this report enthusiastically presents the management procedures, practices and achievements of the largest airline in the People's Republic of China as the Company passionately fulfills its social responsibility in safety, environment, service, staff, society and other fields.

We trust that though this Corporate Social Responsibility report you will have a better understanding of China Southern and join together with us as we create a sustainable future.

Scope

This CSR report spans the period of January 1, 2018 to December 31, 2018. When appropriate, certain elements of this report may be traced back to previous years and the content of this report covers the Company and its subsidiaries.

Basis

This Report has been prepared in accordance with the following: Guidelines Concerning State-Owned Enterprises' Fulfilling Social Responsibilities published by the State-Owned Assets Supervision and Administration Commission (SASAC); Environmental, Social and Governance Reporting Guide published by the Hong Kong Stock Exchange (HK-ESG); Guidelines on Preparation of Corporate Social Responsibility Report and Notice on Further Improving Disclosure of Poverty Alleviation Work of Listed Companies published by the Shanghai Stock Exchange; "GRI Sustainability Reporting Guidelines" (GRI Standards) issued by Global Reporting Initiative (GRI) and The national standard GB/T 36001-2015: "Guideline on the Compilation of Corporate Social Responsibility Report".

Source of Data

Financial data used in this report were extracted from audited annual reports of China Southern, and other data were sourced from official corporate documents and statistics.

Name Description

For convenience, all references to "China Southern", "we", or "the Company" herein refer to China Southern Airlines Company Limited. The reference to "XIAMEN AIR" refers to "Xiamen Airlines Company Limited". Unless otherwise stated, all financial data in this report are expressed in Renminbi (RMB).

Reliability Assurance

The Board of Directors and all directors of the Company hereby guarantee that this report contains no false records, misleading statements, or major omissions, and accept liabilities for the truthfulness, accuracy and completeness of this report.

Access to the Report

This report is written in Chinese and English and published in both printed and electronic formats. Printed versions are available at all China Southern Pearl VIP Lounges and China Southern Ticketing Branches (or Offices) with electronic versions available to download from our official website at www.csair.com. For any questions or suggestions, please contact us via our contact information available on the back cover of this report.

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2018 Corporate Social Responsibility Report of China So

Pay attribute to the 40th anniversary of China's Reform and Opening up -

Milestones of China Southern Airlines

1997

1978

(CAAC), which had 98 aircrafts, became independent from the

1991

China Southern was established.



G 1993

\$ 1994



Please scan the code to see the "Special Film of China" Southern Airlines for Celebrating the 40th Annovemany of the Reform and Opening up of China'

China Southern was listed in the Hong

Kong Stock Exchange and Shanghai



2000

.....

The first System Operations Control Center (SOC) with proprietary intellectual property rights in China was established.

2001

ly flying a demonstration flight on the



2002 80

- China Southern was consolidated
- China Southern was awarded the "Jinpeng Cup" - the highest honor in aviation safety in China.



ര

2004

China Southern won the 'Five-Star

Diamond Award, the highest prize

五星钻石奖

THE R. L. R. M. LEW.

in global services field.

优质服务

2009

2016

- Sunshine China Southern' initiative was proposed.
- China Southern benchmarked Xiamen Airlines to create the "China Southern Family" and realize standardization. integration, intellectualization and globalization.

2017

- A Decision to Further Strengthen and Improve the Construction of the Party was
- China Southern began the construction of Its base in Beijing Daxing International





2018

 China Southern moved into the Terminal 2 at Baiyun International Airport in Guangahou

- The "Big Operation" project was promoted.
- "Three Two Four Five Three' development strategy was. established.
- Xiongan Airlines Company Limited,
- China Southern promoted the reform for the integration
- Convention on Sunshine China Southern was issued.

\$ 2019

A new management team of China Southern Airlines has been set up and is moving the airline forward into a bold

Comments from the Chairman



Wang Changshun Chairman of China Southern Airlines Company Limited



2018 marks the first year in the implementation of the spirit of the 19th National Congress of the Communist Party of China and the 40th anniversary of the reform and opening-up of China. After forty years of progressive efforts and courageous fights, China has made remarkable changes and achievements in economic and social developments since the reform and opening up. Born and growing up in Guangdong, which is the pioneer, forerunner and pilot area of China's reform and openingup, China Southern grows increasingly stronger, better and larger and has become a large airline with global influence by taking the opportunities arising from the reform and opening-up policy of China.

In 2018, China Southern further studied and implemented Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era and the spirit of the 19th CPC National Congress to honor and continue the reform and opening up. We have formulated the Development Outline for Building a World-class Airline and the "Three Two Four Five Three" Development Strategy. Our fleet, consisting of more than 840 aircrafts, completed nearly140 million air trips, and our business income surged to 143.623 billion yuan, with a total profit of 4.487 billion yuan. With the continuous optimization of our operation, management and control mode, we have gradually formed a new relationship with international partners, and take solid steps by following the development strategy of "standardization, integration, intellectualization and globalization". Sunshine China Southern has become more popular and opened a new journey for us to become an international first-class airline.

Safety first. Safety is the lifeline of an airline. China Southern has always adhered to the strategic principle of "Safety First". We realize a more specialized and refined safety management and firmly defend the safety bottom line by further improving the management of safety functions and safety performance assessments, strengthening the inspection on the work style, discipline and gualifications of the fleet and promoting the integration of resources such as fleet, flights, dispatches and maintenance. In June 2018, China Southern Airlines was honored with the 2-Star Flight Safety Diamond Award by the Civil Aviation Administration of China (CAAC), becoming the leading Chinese carrier to maintain the highest safety records in China.

Sincere service. It has always been the goal of China Southern to win the customers' trust and touch by providing professional, sincere and excellent service. In 2018, China Southern carried out in-depth a flight ontime rate improvement project and increased its flight on-time rate to 80.96%, ranking first among the three major domestic airlines; formally announced the strategy of "China Southern e-Travel" project, established a global baggage inquiry center, enabled "One-Click Refund", and launched a free ticketing website to make the passengers' travel more intelligent and convenient; and offered characteristic fragrant atmosphere, specialty cuisines and rich entertainment programs on board, to create a more pleasant flight experience for our passengers. In Year 2018, China Southern was named World's Most Improved Airline by SKYTRAX, with the passenger complaint rate was 24.65 per million, hitting a record low.

Deepened reform. Deepening reform comprehensively is an important way for China Southern to accumulate momentum for development and enhance the vitality of enterprise. In 2018, China Southern overcame a lot of difficulties and opened a new world while deepening reform. Guangzhou Hub was transferred to Guangzhou Baiyun International Airport Terminal T2, the topping out of the base in Beijing Daxing International Airport was completed, the application for establishing Xiong'an Airlines Company Limited of China Southern was approved, and a new mutually supporting and coordinated pattern is taking shape with the strategic layout of the Guangzhou-Beijing "Double Hub". We implemented SASASAC's "Double Hundred Action", promoted the integration reform of freight logistics, set up freight logistics companies, and worked out an implementation plan

for the mixed ownership reform. In China Southern, we also deepened the reform of the three systems and fully mobilized the enthusiasm of the whole staff. On the other hand, we invested Guangzhou Bank, obtained insurance brokerage license, and made significant progress in deepening cooperation with local governments.

Protection of ecology. Respecting the nature and protecting the ecology conform to the long-standing corporate values of China Southern. In 2018, China Southern upgraded its energy conservation and emission reduction work group to an ecological and environmental protection enhancement work group, and started the ecological and environmental protection mechanism and published relevant guidelines to promote the company's ecological protection work to a new level. We continued to implement the main agreements of the Buckingham Palace Declaration and actively protect biodiversity. "Fuel e-Cloud" data platform, Electronic Flight Bag (EFB) and other electronic and IT-based means were also introduced to reduce waste, promote energy savings and emission reductions. The annual carbon dioxide emission is 8.88 tons per 10,000 ton-kilometers, down by 3.1% year on year.

Care for staff. Talented employees are valuable resources for our sustainable development. China Southern always upholds the "people-oriented, all-inclusive, win-win growth" concept and grows with our employees. During Year 2018, China Southern promoted the standardization, institutionalization and normalization of the "Five Small" innovation projects. 100% of our staff participated in these projects and 2,935 "Five Smalls" innovative projects were initiated. By promoting the centralized rotation training of senior executives and officers and issuing the "Convention on Sunshine China Southern", we are committed to the progressive development of the Company. Continuous staff training was provided throughout the year as we realized an important "work/life balance" by recognizing and awarding professional achievements.

Return to the society. China Southern carries out the major decisions and deployment of the Central Committee of the Party and the State Council on poverty alleviation and makes due contributions to poverty alleviation which aids in the construction of a well-off society. During Year 2018, we carried out poverty alleviation assignments in 2 counties and 21 villages spanning 12 provinces and regions, with a poverty alleviation fund of more than RMB 17.232 million yuan. More than 63 of our staff were dispatched at varied locations around the nation to act as appointed and stationed officials. We also provided flight support services for UN peacekeeping forces, emergency rescue efforts and escorting criminal suspects back home to the Motherland. As we continue our forward momentum of international development, we are proud to be part of the international aviation community as we conduct in-depth cultural construction and exchange activities – all centered to establish a positive image of "Sunshine China Southern" and as a responsible Central State Owned Enterprise.

On the 40th anniversary of reform and opening up, President Xi Jinping emphasized in a survey in Guangdong that China will not stop its reform and opening up. At the conference celebrating the 40th anniversary of reform and opening-up, President Xi Jinping emphasized that it is a relay race for us to build a great modern socialist country and achieve the great rejuvenation of the Chinese nation. We should run baton by baton, and each generation should strive courageously and fulfill their dreams with arduous and continuous efforts for the next generation. With our new starting point and new goals in this new era, China Southern under the guideline of the Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, will keep in mind our original intention and mission, strengthen our confidence, maintain strategic determination and work out the blueprint to the end. We are moving toward to a worldclass airline with global competitiveness, and striving to take leadership in building our motherland to be a great power in transportation and civil aviation, to honor the 70th anniversary of the founding of New China with excellent achievements.

About Us

Overview

Company Profile

China Southern was founded in Year 1991 and six years later was listed on both the Hong Kong and the New York Stock Exchanges. This was followed by a public listing on the Shanghai Stock Exchange in Year 2003. Our primary business spans scheduled (and nonscheduled) domestic, regional and international air transportation services for passengers, freight, mail and baggage. China Southern is the largest airline company in the People's Republic of China based on fleet size, number of routes and annual passenger carried.

Organizational Structure

China Southern operates 16 branches in Xinjiang, North China and other parts of China; 8 controlled subsidiaries such as Xiamen Airlines: China Southern General Aviation Co., Ltd. in Zhuhai; 22 domestic sales offices in nearly every major Chinese city including Hangzhou, Beijing and Qingdao as well as 69 international sales offices located in major metropolitan destinations such as London, Singapore and New York City.



Guangzhou Air Cargo Terminals Co., Ltd. Guangdong China Southern Airlines E-Commerce Co., Ltd, China Southern Airlines Air Food Co., Ltd, Guangzhou Nanland Air Catering Company Limited, China Southern Airlines Ka Yuen InternationalDevelopment Co., Ltd, Beijing China Southern Airlines Ground Services Co., Ltd, Guangdong China Southern Airlines SkyTeamInformation Technology Co., Ltd, Nan Lung International Freight Hongkong Co., Ltd, China Southern Airlines overseas (Hongkong) Co., Ltd, Zhuhai XiangYi Aviation Technology Company Limited

Kitchen Ltd, Hong Kong Business Aviation Centre Co., Ltd, Aviation Data Communication Co.,Ltd, CUTUC Offshore Helicopter Co.,Ltd.(listedcompany), Haikou Meilan International AirportCo.,Ltd.

China Southern Airlines Co.,Ltd



3 Joint Ventures Joint

Guangzhou Aircraft Maintenance Engineering Company Limited, Shenyang Northern Aircraft Maintenance Co.,Ltd, Guangzhou China Southern Zhongmian Duty Free Store Co.,Ltd,

Fleet Size

No. 1 in Asia No. 3 in the World





Airline Network

China Southern operates an intensive airline network covering all of China and radiating outward throughout Asia with same day connections to Europe, America, Australia and Africa. Every day, China Southern has more than 3000 flights to 40 countries and regions and 224 destinations across the globe, with more than 300,000 seats. The airline's main hub at Baiyun International Airport Guangzhou is a vibrant transfer destination for travelers from around the globe. With more than 50 international and regional navigable points, Guangzhou has become the gateway transfer hub of choice for travelers between China, Australia and Southeast Asia.

311

2018 saw the opening of international and regional routes **40**



of passenger and cargo

aircrafts **1341**

LAS IN A

Corporate Culture

In 2018, facing the changes in the internal and external environments, China Southern sorted and upgraded its corporate cultures and issued the Convention on Sunshine China Southern, which serves as an action program and ideological guideline commonly created, followed and implemented by all people in China Southern in the new era.

Code of conduct for the management: reasonable, compliant, consistent and responsible

Mission: Connecting the World to Create a Better Life

Vision: Build a world-class airline with global

Spirit: Diligent, Practical, Inclusive and Innovative

Core Values: Customer, Staff, Advantage,

Marketing

Development concept

Talent

Code of conduct for leader and employees: prudent, practical, careful, precise and incorruptible

Core Concepts

2.773 million hours

Safe flight hourstime

flight hours

(including Xiamen Airlines)

0.0047

Incident rate per 10 thousand

Aviation safety duration

Flight safety duration

295 consecutive months

230 consecutive months

China Southern in 2018

The only airline amongst the Top 50 Boards of Directors selected by Fortune Magazine.

Main honors

Ranked sixth in the 2018 World's Most Valuable Airline Brands released by Brand Finance.

Received the Two-Star Flight Safety Diamond Award by the **Civil Aviation Administration** of China (CAAC), as the leading Chinese carrier to maintain the highest safety records in China.

World's Most Improved Airline from Skytrax

Honored by Skytrak as the "World's Most Improved Airline"; "Best First Class in China" and "Best First Class Lounge in China".

Best First Class Lounge in China released by Skytrax

140_{million} Passengers transported up by 10.8% year on year

30.334 Total transportation mileage with an increase of 11.03% year on year

1.7323 Freight and mail volume up by 3.60% year on year

143.623 billion Operating revenue increasing by 12.66% year

on year

26.9013 million Total carbon dioxide emission

> 2.82 tons/10,000 ton-kilometers Fuel consumption per kilometer

down by 3.09% year on year

6.5 years Average age of aircrafts

7.6475 million Total water consumption

80.96% On-time rate of flights

per million **24.65** Complaint rate

4.7_{scores} Rating of passenger cabin service on Skytrax website up by 8.8% year on year

person-time

Honored with the "Best **On-board Catering for** European Routes of the China Travel Award" by the Institute for Aviation Research.

Earned the inaugural "Red Crown-Management Innovation Award" of MRO China for the APS theories.



434,000

Employee training (excluding that for Xiamen Airlines and China Air Service Ltd.)

17.232 million yuan Poverty alleviation funds donated

63 Appointed and stationed officials

53

Charter flights accomplished

7,250

Total number of suppliers

33,000 Employees' volunteer service hours

Strategy and Governance

Corporate Strategy

During Year 2018, China Southern continues on its bedrock foundation of building the carrier into a world-class airline and formulated a "Three Two Four Five Three" strategic framework. Specifically, this means:

First Class Safety Quality First Class Profitability, and First-Class Brand Image" and the strategic formation of the Guangzhou and Beijing "double hub" flight operation.

China Southern's strategic orientation is the catalysis for "standardization, integration, intelligence and globalization". The governance system consists of five parts: governance structure, strategic management, group control, market mechanism and corporate culture with the support capabilities to include resources, foundations and mechanisms. guarantee. During Year 2018, China Southern continued to make efforts to further consolidate its development flight bases and enhance its international competitiveness.

Case Study: China Southern Exclusively Situated at T2

On May 19, 2018, the flight operations of China Southern Airlines in South China was permanently transferred to the new Terminal 2 (T2) of Baiyun International Airport Guangzhou which further expands the airline's "Canton Route" of travel products with the connectivity of the new airport terminal as the center point of Guangzhou outward to the inte ernational community.China Southern complex.Passengers can be swiftly transported to nearly every part of the world from Terminal T2 as Guangzhou forms a "four-hour air traffic circle" with major cities in China and Southeast Asia, and a "12hour air traffic circle" with major cities are

14







Case Study: Topping out of the Base at **Beijing Daxing International Airport**

During Year 2018, the topping out of all functional areas (including maintenance and repair facilities, employee dormitory, inflight meal facilities, operation and technical support offices, cargo freight facilities, etc.) at the base in Beijing Daxing International Airport was fully completed. Upon opening in September 2019, China Southern will manage 40% of the air passenger traffic of Beijing Daxing International Airport as the air carrier strives to build this new Beijing airport into a composite aviation hub connecting the air traffic network of the south-central, northeast and northwest regions in China as well as international air traffic to form a "double hub" design that mirrors that of the airline's hub in Guangzhou.

Case Study: Establishing Xiong'an Airlines **Company Limited of China Southern**

On November 15, 2018, the application to establish Xiong'an Airlines Company Ltd., of China Southern was given preliminary approval by the CAAC North China Regional Administration. The establishment of Xiong'an Airlines by China Southern, will further expand the airline's new hub operations at Beijing Daxing International Airport as well as significantly adding to China Southern's core aviation business.

Corporate Governance

Since its establishment, China Southern has strictly abode by the laws and regulations of China. In accordance with the spirit of the 19th National Congress of the Party, we have formulated corporate governance documents such as the Articles of Association, Rules of Procedure of Shareholders' General Meetings, Rules of Procedure of Board of Directors and Rules of Board of Supervisors, and established appropriate internal control systems to standardized corporate governance. In 2018, China Southern continued to the corporate improve their governance systems to increase the overall standard operation level.

China Southern is the only airline included Top 50 Boards of Directors by Fortune

shareholder meeting

on-site meetings of board of directors

on-site meeting of supervisors (including 1 preparatory meeting)





Case: China Southern Airlines and American Airlines comprehensively strengthen strategic cooperation

On November 28, China Southern Airlines signed a code-sharing cooperation expansion agreement with the American Airlines, a frequent flyer cooperation agreement and a memorandum of understanding on lounge cooperation. Among them, the code-sharing cooperation will cover the Sino-US main routes operated by both parties and extend to more inland route networks in China and the United States. This cooperation will greatly expand the route network between the two countries in China and the United States, providing a more convenient travel experience for Chinese and American travelers.



Deepening Reform

The senior managers of China Southern Airlines are committed to making the ongoing reforms necessary to bring about important changes that continue to aid in repositioning the airline into one of the worldwide aviation leaders. China Southern actively implements the requirements of the SASASAC of the State Council on the implementation of the "Double Hundred Action". China Southern also continues to promote the reform of its internal systems and mechanisms in strategy, operation and salary to release the development vitality and play a strong tone of reforms.

Integrating Freight Logistics

On October 24, 2018, China Southern formally established China Southern Freight Logistics Co., Ltd. This newly established, Guangzhou-based freight logistics company is based primarily on the framework of the former China Southern Cargo operations and positioning the Group's freight resources to maximum impact including the placement of dedicated cargo aircraft; the wide-use of belly-hold cargo capacity; strategic placement of air cargo terminals, supporting aprons and international logistics. Through a strong market-oriented operation, the China Southern Freight Logistics Co., Ltd., directs the freight business of China Southern Airlines and has guickly become an operational entity and profit center in its own right.



Strategy Decoding

To promote the implementation of the airline's corporate strategies, measures have been taken to promote its strategic decoding as senior airline managers have set up 12 working groups and held 27 group meetings for analysis and discussion to form a professional decoding scheme for each line. The achievements of strategy decoding aids in promoting the implementation of strategies at different levels which enhancing the airline company's ability to execute strategies with "one scheme, one map and one table" ("one scheme" refers to the overall strategic decoding scheme, "one map" refers to the map of objectives at the company level and "one table" refers to the summary table of objectives).

Implementing the Manual

prevention.

In order to further enhance the management standardization of the Company, manual publicity and training activities themed on the "Implementation Year of Manuals" were organized, and the "Measures for Evaluation of Manual Management and Implementation" was established to guarantee the smooth implementation of manuals. As a result, a compliance culture emphasizing that "all behaviors should be systemized, all systems should be included into manuals, and all manuals should be implemented" was formed, laying a firm foundation for risk

Risk Management

To further strengthen the Company's capabilities in risk control and prevention, China Southern Airlines has established an Overall Risk and Internal Control Management Committee, which is responsible for the organization, management, overall planning and responses for the Company's risk control. In addition, China Southern consistently evaluates its risk management and internal control systems to promote the integration of overall risk management with internal controls in an effort to build a diverse, "three-dimensional" risk prevention and control system.

This "three-dimensional" risk prevention and control system of China Southern is a pyramid-shaped operation ... vertical with review on major decisions in the upper layer; risk control and management in the middle layer and project-specific legal services on the bottom. Horizontally, this system, based on specific business processes, builds three "defense" lines for risk control by defining the responsibilities of the departments responsible for the management and supervision of risk control. All these measures aids in the early prevention and control of risk and forms a "closed loop" to supervise the identification, assessment, control, monitoring and mitigation of risks of the Company.

In terms of the review of major decisions at the upper layer, China Southern embeds a legal compliance audit function into the management decision-making procedures and enhances the legitimacy of its audit and risk assessment to effectively ensure the compliance of major business decisions. As for the risk control and management in the middle layer, China Southern senior managers work diligently to prevent global risks through overall risk management, and specific business risks through internal control management.In the aspect of micro-risk prevention and control at the bottom layer, the Company provides daily legal risk management and legal services for major projects, fully covering the legal audit for the establishment and implementation of major projects such as transfer of property rights and material procurement. Concurrently senior management strives to alleviate early risk warnings and guards against underlying risks.

123

review opinions on major legal decisions were issued and legal review were conducted for

of maior decisions

Internal Audits

During Year 2018, the National Audit Office issued new "Regulations on Internal Audit" which had a direct impact on the internal audit work of the Company. China Southern is steadfast in implementing national policies, revising internal audit frameworks, audit and supervision joint committee systems, audit committee and other systems.All these internal audits effectively meld the national policies into the airline's daily internal audit work.

China Southern Airlines acts as an "inspector, guardian and scout" by promoting the implementation of strategies, overcoming challenges while deepening reforms and promoting internal audits in the principle of strict governance of the Party. Parallel to this, the Company earnestly strengthens the rectification of challenges found in the audits and ensures corrections can be completed effectively within a limited time period by implementing the accountability system for audit and rectification, establishing an auditrectification linkage mechanism and taking important measures to urge and track the audit of problems found.China Southern Airlines has established an internal audit reporting system to share its audit findings with the discipline inspection, supervision and other departments to form a joint supervision matrix.

Company.

management

recommendations made

on the basis of these audit

3

results

705

special audits and internal control audits were conducted during Year 2018

26

Twenty six economic responsibility audits

there were

trademark nfringement incidents in the whole year

STORATOR .

Intellectual Property Right

According to the Trademark Law of the People's Republic of China, the Patent Law of the People's Republic of China and other laws and regulations, the management of trademarks, patents and software copyrights were standardized through the centralized management of intellectual property rights and the division of responsibilities among professional departments. In strict accordance with the "Trademark Law of the People's Republic of China" China Southern senior managers design and selected trademarks, classified trademarks, standardized the process for the joint use of its current airline trademarks with third parties and work to actively promote the publicity of its trademarks to ensure the standardized management of trademarks and safeguard the interests of the

Anti-Corruption

In terms of promoting the anti-corruption work of airline suppliers, China Southern has formulated a "Code of Conduct for Suppliers", requiring suppliers to abstain from corruption, blackmail, bribery, extortion, corruption and other acts involving unlawful interests.China Southern attaches the greatest importance to anti-corruption efforts, improving the Party's work style and building clean enterprise. The Company has created a long-acting mechanism of "Cannot Afford to Be Corrupt" and is committed to the building of Sunshine China Southern. In terms of system reform, China Southern, with a deep and accurate understanding of the spirit and requirements related to deepening the reform of national supervision system and the discipline inspection and supervision system of SOEs, firmly promotes the reform of its discipline inspection and supervision system, to lay a solid foundation for the high-quality development of discipline inspection and supervision work of China Southern in the new era.In terms of system construction, China Southern continuously improves its discipline inspection and supervision manual and revised the systems such as "Measures for Implementing the Institutional Mechanism of 'Cannot Afford to Be Corrupt'" and "Regulations on the Management of Punishment for Employees Violating Rules and Disciplines.

A "Cannot Afford to Be Corrupt" system has been created to guarantee that relevant organizations and their staff exercise their authority within specified processes and standards. In terms of discipline education, China Southern carries out monthly discipline education for "stressing politics, strengthening party spirit, defining discipline and obeying rules". More than 5,000 copies of anti-corruption publications, including the "2018 Anticorruption Reading", were printed and issued to enhance the anti-corruption theme for all senior managers and staff. In terms of inspection and supervision, China Southern focuses on areas and key links where corruption could potentially occur, such as: Material procurement Tendering and bidding Financial management Personnel selection and employment, and Inspection of important annual holidays such as Chinese New Year and the Spring Festival.

Contemporarily, China Southern constantly establishes channels for employees to report by means of letters and visits and acts in a timely way to fix problems, enabling the party members and staff to perform their supervisory roles. As a result, reporting by means of letters and visits plays an important role as a main reporting channel. China Southern has implemented an accountability procedure which has a "zero tolerance" baseline, so that all staff understand the importance of maintaining ethical and positive work standards each and every day. Throughout Year 2018, 35 cases of violations of laws and regulations were exposed and 35 individuals found to have contravened necessary laws and regulations have been investigated by the administrative and Party discipline agencies.

we organized more than

study meetings, on-demand training seminars and thematic Party lectures throughout the

year 2018. More than

60,000 Party members participated in the study and

Party Building Management

Upholding the Party's overall leadership and reinforcing the Party's construction are the "root" and "soul" of all stateowned enterprises (SOEs). China Southern continues to comprehensively strengthen Party discipline and expedite effective implementation of key tasks for Party building so as to shore up the Company's reform and development.

Centralized Training for Officials

China Southern continues to study and act upon President Xi Jinping's Thought Socialism with Chinese Characteristics for New Era and guidelines of the 19th Nationa a New Era and guidelines of the 19th National Congress of the Communist Party of China, and organizes training of its officials with 15 sessions f 5-7d centralized training in rotation for deputy officials at or above the third level as well as 16 sessions of centralized training in rotation for secretaries of primary Party organizations, four ays and nights for each session. More than 1,624 officials attended the training sessions which were targeted at the continual improvement of Party members' and officials' political accomplishments.

Appraisal System for Party . Building Performance

In response to the requirements of a responsibility system for central SOEs' Party building work, the Company revised the "Procedures for Appraisal of Party Building", dispatched inspection teams to conduct centralized and on-site appraisal of Party building performance for Party committees of secondary units and developed an appraisal mechanism integrating three forms of appraisal including field inspections by confirmation, day-to-day work evaluation and interviews with Party members.

Benchmark Campaign for Party Building Work

hina Southern launched an across-the-bard benchmarking and improvement ampaign for Party building work, made ained efforts to advance "Two Studies, One ion"-based institutionalized learning and loation on a regular basis by following the neral thought and path of "Three Unities", e Benchmarks" and "Six Improvements", an illed the requirements of "Three Checklists of gaps, tasks and responsibilities by benchmarking with first-class models, in an effort to elevate the level of Party building management.

training sessions.



Case Study: China Southern's Party **Building Information Platform**

China Southern's Party Building Information Platform - a new tool developed by the Company to carry out Party building using Internet and information technologies was launched on July 1, 2018. This exciting new system consists of three carriers: China Southern Party Building Network; China Southern Party Building APP and China Southern Party Building WeChat Service which is open to 1,700 Party organizations and where nearly 30,000 Party members can learn anytime and anywhere.



Responsibility Management

CSR Governance

As one of the nation's leading air transport enterprises, China Southern has soldiered its Corporate Social Responsibility (CSR) as a positive, conscientious choice and the core of its business operations. To move the airline company's CSR concepts into daily practice, China Southern senior managers have formulated the "General Handbook of CSR Management" (and its separate volumes) to hone its management scope and flow of CSR with specifics on the roles and responsibilities of relevant departments. China Southern senior managers established a threetier, interlinked CSR governance structure consisting of CSR Guidance Committee, CSR Working Office and the functional divisions of the headquarters as well as all subsidiaries and branch operations, with the aim of putting the responsible development concepts into action at all levels and maximize the Company's sustainable development.

CSR Operation Structure



The CSR Guidance Committee, under the leadership of the Chairman and ohter members of the Board of Directors as deputy directors, is tasked with making decisions on CSR strategies, establishing an environmental and social risk control system and finding solutions to CSR challenges. This includes:

CSR Working Office, which is set up at the Publicity Department, is responsible for carrying out the resolutions adopted by the CSR Guidance Committee and building a CSR management mechanism.

Functional divisions of the headquarters are responsible for management and information disclosure of CSR aspects.

CSR management departments of subsidiaries and branch operations are responsible for establishment of departmental CSR system and information disclosure.





Case: The 1st China Southern CSR Day and 1st CSR Demonstration Base

On April 22, 2018, more than 130 passengers boarded a special "China Southern CSR Flight" - flight number CZ6886 - which departed Guangzhou for Ürümgi (CAN-URC) while participants enjoyed reading Corporate Social Responsibility reports during the flight. The Company has established each April 22 as "CSR Day at China Southern Airlines" - which has as its highpoints a series of special events to commemorate the airline's commitment towards fulfilling its Corporate Social Responsibilities. It was on this lovely April day in Year 2018 that the first CSR Demonstration Base was founded in China Southern's Xinjiang Branch to inspire more corporate departments to

China Southern and **SDGs**

In December 2015, the United Nations announced its "2030 Agenda for Sustainable Development" with the goal of bringing all countries in the world together in an effort to attain a baseline of global sustainable development, protect the planet and ensure peace and prosperity for all by Year 2030. China Southern is honored to participate in this worthwhile effort to meet this shared global responsibility. The Company has selected eight priority actions from 17 Sustainable Development Goals (SDGs) in its global sustainable development and taps into individual talents and company-wide management resources to further these efforts:

Our Actions



NO Poverty Ň**ŧŧŧ**ľ OUALITY EDUCATION Sustainable Development Goals 5 ą GENDER EQUALITY 6 0 **CLEAN WATER** AND SANITATIC

• Implementation of poverty alleviation projects in 2 counties and 21 villages spanning 12 provinces across China, with RMB 17.232million invested and 63 officials dispatched to these targeted poverty-stricken regions to improve the quality of life and move people out of poverty.



• Carry forward the "Together with Kids" project to help left-behind children reunite with their parents and offer assistance for their healthy development.



• Promotion of equal pay for equal work - irrespective of sex - and the protection of the rights and interests of female employees by signing collective contracts.

• Establishment a new "Mommy's Hut" outreach to provide extra care and support for pregnant and maternity employees.

• Finalizing the procedures for granting of mutual aid funds for female employees affected with serious diseases; helping 78 stricken female employees apply for mutual aid funds amounting to RMB 1.145 million.



• Regular checks of drinking water onboard to safeguard water hygiene and quality.

• Application of "dry cleaning" techniques to clean aircraft interiors, reducing the water consumption by 80%.

Our Actions



• Remuneration system that provides a competitive salary and benefits to all employees.



 Implementation of energy savings and environmental protection techniques to promote low-carbon travel.

• Management of waste water and gas emissions to reduce environmental impact.



• Active participation in the EU Emissions Trading Scheme and the formation of technical rules for a civil air transport carbon trading scheme, and completion of EU and Guangdong Carbon Trading compliance works.

• Promotion of greener flights to reduce greenhouse gas emissions and environmental impact.



• Signatory to the "Buckingham Palace Declaration", compliance with 11 commitments stated in the Declaration, and participation in the global effort in stopping illegal transportation and trade of wildlife and wildlife products.



Identification of Material Aspects

To enhance the responsiveness of this CSR Report, China Southern organized the identification of CSR material aspects by collecting these aspects from internal and external stakeholders and screening them for relevant "significance to business operation" and "significance to stakeholders". During this comprehensive review by the airline's senior management team, 20 material CSR aspects were identified and are listed below:

List of CSR Material Aspects of China Southern

Corresponding Chapter		Aspects	
About Us		Compliance with laws and regulations	
Society -	2	Establishment of an appropriate procurement process and fine relationship with suppliers	
	3	Giving back to the community	
Safety	4	Assurance of passengers' health and safety	
	5	Protection of occupational health and safety of employees	
	6	Reduction in flight delays	
Service	7	Attention to passenger satisfaction	
Service	8	Protection of passenger privacy	
	9	Improvement of passenger experience	
Strategy and governance	10	Anti-corruption	
	1	Establishment of a complete internal communication system	
Employees	12	Supporting employee training and education	
Employees	B	Ensuring equal opportunity and equal pay for equal work for all employees	
	14	Attention to employees' remunerations and benefits	
	15	Attention to the use of recyclable materials	
Environment	16	Increased energy efficiency	
	17	Reduction in water consumption	
	18	Managing greenhouse gas emissions	
	19	Attention to wastewater treatment and waste disposal	
	20	Assistance to airports and communities in reducing aircraft noise	

Communicating with Stakeholders

As a responsible state owned enterprise, listed on three international stock exchanges, China Southern Airlines is committed to proactive and transparent communication with its stakeholders through an expanded communication outreach. In responding to the airline's stakeholders' appeals, the Company strives for continued improvement of its communication capabilities by sharing its numerous Corporate Social Responsibilities successes.

Stakeholder	Expectations and requirements	Means and channels of communication
Investors	 A continuous and stable return on investment Healthy corporate governance structure Complete information disclosure system Complete risk prevention system 	 Board of Directors General Meeting of Shareholders Meetings of Supervisory Board Regular reports and announcements
Government	 Legal operation Increase in tax contribution Increase in employment 	 Special reports, visits and investigations Project cooperation and business meetings Statistical reports
Environment	 Energy saving and emission reduction; climate change Ecological preservation and pollution reduction Noise reduction 	 Advocate green flight and carbon emission reduction Promote ground environmental protection Adopt noise reduction measures
Customers	 Continuous safety Quick response to customer complaints and suggestions 	 Safety management system Customer relation management and online services
Employees	 Effective communications Improve training Improve employee compensation and benefits Open, fair and health human resource policy 	 Employee Representatives General Meeting Diversified employee training Compensation system reform Integrated staff management
Suppliers	Ethical operationCo-development	 Transparent procurement Training and technology exchange seminars
Partners	 Enhance debt-repayment ability Reduce risk 	Contract negotiationsBusiness meetings and discussions
Community	Increase input to charityVolunteer service	 "10-Fen" Care Foundation Charitable activities and volunteers
Media	 Establish information disclosure channels to timely express the voice of China Southern 	 Press conferences Media forums
Other players in the industry	 Fair competition and friendly cooperation Healthy and harmonious industry development 	 Cooperation Communications, forums and conferences

Special Communication Activities

China Southern senior managers and staff carry out the Company's daily business with progressive attitudes to new ideas and thoughts of improvement. The Company organized public "Open Day" events with different themes each quarter to entice its many stakeholders to come to the China Southern offices to get to know and understand the Company and its business practices as an outreach to enhance trust and boost co-development with all sectors of society.







Public Open Day events

Q1: visit the Customer Service Center

On March 27, 2018, more than three dozen citizens and journalists were invited to the China Southern's Customer Service Center to get "up close" with the customer service representatives and see the management team's best business practices.

Q2: visit the M&E Center

On June 27, 2018, 22 new university graduates visited China Southern's Aircraft Maintenance Center to experience their first "flight lesson" in life.

Q3: evolution of flight attendant uniform

On September 26, 2018, more than 30 citizens and journalists were invited to view the evolution of the China Southern's flight attendant uniforms and see the changes in China's civil aviation industry during the past 40 years of reform and opening up.

Q4: Uncover the secrets to in-flight first aid and emergency response

On December 20, 2018, China Southern held an "Open Day for Stateowned Enterprise" and China Southern Public Open Day for Q4 2018. The Publicity Bureau of the State-owned Assets Supervision and Administration Commission of the State Council arranged for more than 40 representatives from different public sectors and media reporters to step into the dynamic China Southern A330 simulation cabin for a first-hand experience of safety procedures including onboard fire equipment, first aid and emergency evacuation techniques.

Focus on 2018

Targeted Poverty Alleviation -Co-Builder of a Well-off Society



Achievement in Poverty Alleviation in 2018

by the Leading Group of Poverty Alleviation and Development of Xinjiang

honor:

2018 Organization Innovation Award





Reinforcing Poverty Relief Management

Organizational system



a new frontline "Command Center for

On June 21, 2018, a delegation of more than 30 members led by Wang Changshun, Chairman and Party Secretary of China Southern, visited Pishan County and Karakax County, two sites of fixed-point poverty alleviation, where they signed agreements on poverty alleviation assistance with representatives of both





Action planning

Personnel management

The Company issued the "Guidelines

Poverty Alleviation Model

Relying on its many advantages as a thriving aviation business, China Southern uses computer models to track its advanced aircraft fleet, competitive resources and professional workforce and build a distinctive poverty alleviation database that features "aviation leading, industry driven, education backing, care and assistance and transparent poverty alleviation".

Aviation Leading

- New routes between Kashgar-Hotan-Aksu and Hotan-Ürümqi -Xi'an were opened during Year 2018 to expand China Southern air services to 19 provinces and cities which, in turn, opened up new business and development opportunities to Xinjiang and its corresponding neighboring regions.
- China Southern Airlines worked to entice investors to build factories in the Xinjiang business community and channelec substantial financial resources to local villages for purchase food stuffs and supplies provided by China Southern to advance the airline company's "products for poverty alleviation going on board" project.
- China Southern assisted 936 people to fly for their transfer employment and was the first airline in China to use chartered aircraft specifically to assist migrant workers. The Company creatively dispatch a "CSA poverty-alleviation aircraft for migrant workers", a Boeing 737, to fly 152 young people from Hotan County to Wuhan to secure employment and realize their dream of "flying away from the desert to get rid of poverty".
- On National Poverty Alleviation Day, China Southern's marketed its special "Poverty Alleviation Themed Flight" on Flight CZ6929 from Changsha to Ürümqi through varied media channels including radio, video and other media and served as a "spokesman" for targeted regions of poverty alleviation

One hundred reports and editorial sections regarding the issue of poverty alleviation were published in inflight newspapers and monthly magazines such as the China Southern Airlines and NIHAO; and the airline company's official WeChat accounts such as CS95539 and csairnews were created for extended promotion of tourism cultural resources and specialty products in Hotan, Pishan and Karakax counties.All these and many more marketing efforts served to fuel the development of local leisure economy.





Industry Driven

- Throughout Year 2018, China Southern played a key role in assisting individual communities overcome poverty by developing vegetable and apricot processing farms and fostering village-level animal breeding demonstration bases. China Southern made numerous investments to construct projects such as Sunshine China Southern Airlines Ginkgo Industry Base for Poverty Alleviation; Navel Orange Demonstration Plantation and China Southern Pitaya Plantation at Wengang Village in Hubei, Hunan and Guangdong.
- The Company assisted people living in poverty-stricken areas by introducing 29 investors who made an aggregate financial commitment of more than RMB 590 million to boost local economic development.

Case Study: Poverty Relief through Industrial Development

To aid left-behind women in Bulakebeixi Village secure local employment and help their families out of poverty, China Southern, considering its own demand for safety work gloves, cooperated with varied local governments to open the first factory for poverty relief through industry development in the village. At the factory opening, China Southern placed an order for gloves valuing RMB 2.23 million for Phase I of the project, which directly helped 28 farmers in seven villages secure permanent employment and led more than 120 people out of poverty. In subsequent phases, China Southern pledged to help factories with marketing its work safety products for additional income and achieve sustainable self-development.

Education Backing

- China Southern donated RMB 11.44 million for the construction of the China Southern Pearl Primary School in Pishan County and China Southern Pearl Kindergarten in Karakax County which today are renown in their communities as the best Mandarinspeaking schools in the region. The two schools have trained nearly 10,000 graduates, playing a critical role in promoting national unity and maintaining social stability.
- The spectrum of t

Care and Assistance

RMB² million

To promote thorough implementation of the health poverty alleviation project, China Souti invested RMB 2 million to provide timely help those in urgent needs in Karakax County.

Transparent Poverty Alleviation

The Company developed systems such as the "China Southern's Implementation Plan for Improving Style of Work in Poverty Alleviation and the Specific Measures of the Discipline Commission for Supervision, Disciplinary Enforcement and Accountability in Poverty Alleviation" and incorporated in-office and out-of-office audits of poverty alleviation to ensure transparency.Remarkable poverty alleviation achievements and tremendous positive changes in the areas were demonstrated.

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I'm so happy that I can go to work and learn technology in my hometown to increase my family income!

> —— by Rozanisa Mamut from Bulakebeixi Village

The Company also sponsored the training and competition of the football team of Kawake Township Primary School in Karakax County and cheered on the team to win two local championships. The micro film "Dream from the Heart" adapted the team's story and had more than 100 million viewers.





ern :o **1.13** million

China Southern made an additional investment of RMB 1.13 million to establish the first early childhood development center in Karakax County to provide treatment and rehabilitation services for children with cerebral palsy.

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Remarkable poverty alleviation achievements and tremendous changes in the aided areas

Growth

"Learn Mandarin and Leave the Mountains!"

On the evening of March 13, an evening class for young farmers, entitled "Loving Care Class" was opened by the CBA (Comprehend, Benefit and Assemble) working group of China Southern in Bulakebeixi Village of Pishan County. Thirty-seven students in the classroom were waiting excitedly for the teacher to teach them frequently used Chinese characters, classical Chinese poems and pupil's etiquette. Among these Uyghur children, a pair of brothers were particularly noticeable. Nueraili Maimaitiming, who was supposed to take care of his brother at home, came to the classroom with his brother in his arms because he didn't want to miss this opportunity to learn mandarin.

"In the future, I will continue to attend the class and learn mandarin. I want to get out of the mountains and repay the society". This is the simple wish of Nueraili Maimaitiming the driving force for the "CBA" working group of China Southern to open "Loving Care Class".





Harvest

Poverty alleviation through industrial upgrading

Datang Village of Xinning County in Hunan Province was partnered with China Southern Hunan Branch for poverty alleviation. After the residence working group of China Southern was stationed, guided by the working idea of "upgrading industry to alleviate poverty", by giving the advantages of high mountains, cooling water, land, air and water resources in Datang Village into full play, Datang Eco-agricultural Co., Ltd. was established in the form of "village collective + poor households + large households + family farming". The Company exerted great efforts in developing underwood planting in camellia oleifera forest, and upgrading the rice quality in Datang Village. During Year 2018, the production and sales of alpine eco-rice, which has been a staple commodity, rendered solid results and nearly 50,000 kg of rice were sold. Some 200 mu of Datang alpine sweet potatoes also had a plentiful solid harvest. Deep-processed sweet potato products also went to market and it can now be said that it was the humble sweet potato that helped Datang Village win a decisive battle against poverty.

See

Wengang Village in Zhaoqing changed for a new loo

Since 2016, Chin County in Zhaoq to form a team a measures to help 7 million has bee Wengang Village

> Develop industry to alleviate poverty

- China Southern made an investment in the construction of 60 mu pitaya planting base and through the successful "China Southern + village committee + cooperative + external talents + poor household method, the Company has helped the village collective increase its income by nearly RMB 15,000 a year, and the average annual income poor households also increased by more than RMB 1,000.
- More than RMB 1.8 million was invested in the construction of a new countryside. This included the demolition of more than 1,000 broken walls and shabby houses as an area of 30,000 square meters were cleared and 11 kilometers of hardened roads were built.
- Funds totaling more than RMB 3 million were budgeted to establish the Guangdong Wengang Zhenghui Garden Agricultural Tourism Development Co., Ltd., which led to the construction of the Wengang Zhenghui Garden Production, Teaching and Research Base, enticing village talents to return and start their own businesses.

Educational assistance to push back poverty and give new opportunities

- China Southern allocated funds to upgrade the Wengang Primary School and to build a new Kapok Bookstore. Clothes were donated to children at the Wengang Primary School who had their own school uniforms for the first time since the school was founded.
- China Southern actively strives to increase its investments in education. The Company provided an education subsidy of RMB 256,800 to 101 impoverished students in Wengang Village to ensure that no one is left behind.
- Targeted measures to care for and aid those in need
- China Southern has invested RMB 470,000 to support the construct of safe housing, and allocated funds to assist 94 families in the reconstruction of substandard housing.
- The Company took measures to care for and aid the elderly and people with a disability while providing medical subsidies for households ravaged by illness.
- The Company created public welfare jobs for villagers who are able to work. For example, the China Southern Group invested in a village cleaning team and recruited the underprivileged to work for China Southern, thus ideologically stimulating the endogenous motivation deprived residents to help themselves out of poverty.

a Southern has been assisting Wengang Village in Lianmai Town of Huaiji ing City. Two outstanding young cadres were selected by China Southern nd station in the village. The main task of the team was to take targeted 375 poor villagers in 140 households in Wengang Village. More than RMB n invested in poverty alleviation, and fundamental changes can be seen ir

s" of



Party members take the lead in transparent poverty alleviation

- The Party Branch of China Southern Airlines Shenzhen Branch and the Party Branch of Wengang Village signed a Party branch co-construction agreement and 14 batches (consisting of some 200 Party members) were organized by China Southern to carry out Party branch co-construction activities in the village, providing residents with cultural, educational, material and financial assistance.
- The Company organized and carried out the "China Southern Airlines and Wengang Village Work Together to Prosperity" event and invited students to fly to Shenzhen Bao'an International Airport and visit the terminal buildings and China Southern aircraft.
- At the Wengang Primary School, airline staff initiated the "Helping Students in Pairs Weave Their Dreams of Blue Sky" camping program which offered students positive motivational lessons, entitled "A Happy Blue Sky Dream" to encourage them to broaden their horizons.

Focus on 2018

Global Operations - A Leader of Reform and Transformation



Building a Centralized Operation Platform

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Optimizing Operation Management

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Through the centralized operation and unified decision-making by 11 operation units of the Headquarter such as marketing, flight, and maintenance, a three-level (field level, management level and company level) decision-making system has been established according to the nature of operational events.



AOC and GOC

Geographic Operation Center (GOC) of subsidiaries and branches

The centralized operation of the relevant operating units of subsidiaries and branches, which is responsible for supporting the local operations, covers the businesses such as passengers, baggage, cargo delivery, dispatch of crew buses, and on-site scheduling for operation command.

Optimizing Operation Management



🗝 Unified Management 🔸 🚽

Operational Efficiency

8,62 percentage points

🕂 Marketing Reforms 🔸

🗝 M&E Support 🔸



Focus on 2018

All-staff innovation - Practitioner of Sustainable Development



When faced with stiff market competition, only innovators can forge ahead to win the lay. Innovation can and should be a driving force for positive aviation development nd also an important guarantor for long-term sustainable development of statewned enterprises. During Year 2018, China Southern continued to carry out is unique "five smalls" innovation activities which encapsulated relatively small oventions, creations, innovations and designs ... which in turn expanded the each of the airline's business activities. These novel concepts were undertaken to encourage staff's enthusiasm for their participation in the innovation process nd converge the staff's ability to push forward massive reforms and further the ustainable development of the Company.

"Five Smalls" Innovation Cases

Real-time Sharing of Big Data via "Fuel e-Cloud" Platform



Fuel consumption is the origin of the biggest operating cost of an airline. The whole industry has long lacked a precise solution to control fuel cost. "Fuel e-Cloud" is an innovative platform that can monitor the fuel cost dynamically to ensure the real-time, accuracy and uniqueness of the fuel data of the Company. In addition to acquiring the real-time information such as actual refueling volume, refueling time, fuel temperature, density, price and cost, the "Fuel e-Cloud" platform, with the aid of cloud computing based on big data, can also analyze and apply the information acquired to realize many functions, such as monitoring overscheduled refueling, conducting statistical analysis of refueling data and forecasting fuel cost trend. The use of the "Fuel e-Cloud" platform creates great values for the Company by greatly improving the fuel cost control, reducing the refueling guarantee time, simplifying the work procedures and reducing manual errors. Integrated Disassembly Tool for Main Undercarriage of Model A330

> This solution breaks the traditional disassembly and assembly mode of the main undercarriage of Model A330, greatly improves the disassembly and assembly efficiency and reduces the parking time of the aircraft. For each single main undercarriage of Model A330, about 100 hours can be saved, that is, 3 days of parking time for each Model A330 per year can be saved. In 2018, the main undercarriages of 11 A330 aircrafts were disassembled and assembled. In other words, this solution saved 33 days of available capacity for the Company. Meanwhile, this solution features lower cost and smaller weight. The traditional disassembling and assembling electronic control equipment often cost more than RMB 2 million, while this solution, less than RMB 130,000, saving more than RMB 1.88 million in cost. The disassembly vehicle required in the traditional solution weighs 5 tons and cannot be transported. The newly developed tools are less than 0.2 ton in weight and can be transported by air or land. This solution breaks the bottleneck that the cross-district AOG is not impossible for the disassembly and assembly of the undercarriage of Model A330, and provides technical support for the operation of Model A330.

100%

2,935 "Five Smalls" innovation projects

1,520 were widely promoted and reported as "Five Smalls"

Dynamic Exchange of Full Cabin Mileage

> e dynamic exchange of full-cabi leage was originally designed to a complaints of the members ab a difficulty of exchanging mileage the peak season. We have consta proved the scheme for this proce ally worked out the innovative n change mode of "dynamic excha full-cabin mileage", which broug ree major innovations in business tem and experience: mileage but novation, ticketing system innov d customer experience innovative the implementation of the dy change of full-cabin mileage on mestic routes from September 1 fore than 50,000 of dynamic excha

exchange of full-cabin mileage on our domestic routes from September 19, 2018 more than 50,000 of dynamic exchange orders has been placed, with the exchange orders on APP increasing 73% year on yea the exchanged mileages have reached 800 million kilometers, with that on APP increasing 83% year on year. This further improves the mileage value of China Southern and brings better experience to passengers



Painting Service at Pearl VIP Lounges

In order to provide warmer service for passengers and practice the concept of "making passengers at homes", the Pearl VIP Lounges launched a special service: edible pigments are used to paint patterns on the meal plate according to passenger types, different festivals and service demands; with the food plate as a drawing board, a variety of creative patterns with different styles are designed to make routine meal service full of the sincerity of China Southern and share passengers with unique charm of traditional culture. Upon launch, this service is widely welcomed by passengers and wins the praise of many key opinion leaders on Weibo and important passengers. In addition, this service also becomes a "messenger" to promote international communication in important activities, and one of the characteristic services of Pearl VIP Lounges of China Southern.





Safety Management

During Year 2018, the domestic and international aviation industry was plagued by many safety incidents, characterized by mingled and superposed traditional risks such as complex operating conditions, airspace shortage, agent monopoly and anti-terrorism pan-globalization. These scenarios vividly illustrate the tremendous challenges placed on the Company's safety management programs. Considering the current security situation and the requirements of the Global Operation program, the airline's senior management team made specific improvements to the safety management organization, safety management systems and safety risk control and supervision operations to solidify its overall flight safety processes, construct a long-acting safety mechanism and create first-class safety quality.

As a member of the International Air Transport Association (IATA), China Southern has successfully passed all previous reviews of the IATA Operational Safety Audit (IOSA) Program ... an internationally recognized and accepted evaluation system designed to assess the operational management and control systems of an airline. The IOSA audit creates a standard that is comparable on a world-wide basis, enabling and maximizing the joint use of audit reports. All IATA members are IOSA registered and must remain registered to maintain IATA membership. China Southern accepted the initial audit of IOSA in Year 2006 and obtained the IOSA safety audit certification again in Year 2018.

Safety Management Organization and System

In light of the new situation and requirements, China Southern has adjusted its safety management organization accordingly. On the one hand, we adjusted the functions of the Safety Supervision Department responsible for safety management to enhance the expertise and efficiency of safety management; on the other hand, we comprehensively strengthened the Party's leadership in safety management, clarified the leadership of Party organizations of all levels in work safety, and practiced the work safety responsibility system of "ensuring that both CPC committees and governments are held accountable and that officials take responsibility for workplace safety in performing their duties, making joint efforts to tighten safety management and seeing that those who fail to uphold safety standards are held accountable". All these actions are aimed at continuous improvement of safety management.

Additionally, the China Southern Aviation Safety Committee officially issued the "Detailed Rules on Safety Responsibility Assessment" whereby the number of contracted security entities to be assessed was increased from 34 to 69; assessment rules were clarified for applicable entities and new safety measures such as fire control and the handling of dangerous chemicals were incorporated so as to truly realize the "full coverage" safety responsibilities and the "all-around" safety assessment.



Employee

Society

Risk Control

China Southern continuously collected, analyzed and assessed all safety information and released safety risk analysis reports and risk warnings on a regular basis to aid in raising awareness and increasing risk prevention capabilities. In 2018, China Southern set up thematic project teams centered around 10 typical risks such as communication outrage and taxiing deviation to implement targeted strategies, make precise breakthroughs, and further enhance its risk prevention and control capabilities.

Safety Supervision and Management

In view of the possible safety risks caused by the adjustment of departmental responsibilities during the transitional period into the Global Operation program, China Southern heightened safety supervision issues and further defined flight safety responsibilities, requiring "he who leads the crew, he who is on duty and he who leads the team should be held accountable for flight safety". These measures streamlined the interaction between different units and departments into the smooth implementation of the Global Operation program. Concurrently, China Southern launched a "three rectifications and one investigation" campaign for the rectifications of corrective staff inflections, possible deviation from air traffic control instructions and ground service agency as well as qualification investigations which closed management loopholes.



Safe Operations

Aircraft Maintenance **Quality Control**

The highest standards of aircraft maintenance can be found in each and every flight operated by China Southern Airlines which continuously enhances the M&E safety, operation, project management and team construction as it fosters a meticulous maintenance service brand that is second to none in China and has earned accolades across the world. China Southern currently employs more than 19,000 maintenance and engineering technicians and holds 24 national civil aircraft maintenance organization certificates, 24 maintenance bases and 17 maintenance hangars which covers all levels of service capacity for all types of aircraft within the expanding fleet.

19,000

maintenance and engineering technicians

national civil aircraft maintenance organization certificates

maintenance base

maintenance hangars



Maintenance Processes

China Southern has developed an independent "Arrangement - Procedure - Standard" (APS) maintenance safety management system, regarding as one of the growing worldwide standards. The APS system, oriented to "process control" and "source management", achieves ideal results through perfect process management by emphasizing front-line management, foundation work and basic skills. During Year 2018, more than 900 APS SOPs were developed and more than 1,500 APS SOPs were revised to promote the accuracy of the maintenance process.



In September 2018, China Southern's Aircraft Maintenance APS Theory was awarded the "Red Champion-Management Innovation Award" of the First MRO China. China southern was the only organization in China's air transport sector honored with this prestigious prize.

Integrated Maintenance and Engineering System

Taking advantage of opportunities brought by the new Global Operation program, China Southern pushed forward in Year 2018 with the integration of its maintenance and engineering resources, created the "China Southern's Technical Resource Platform" and established a "one leader, four bases" maintenance management framework to comprehensively review aircraft maintenance and operational efficiency.

Maintenance Training Center With six training systems and **Aviation Material Supply**





Our Story: Bathing an Aircraft in Sub Zero Temperatures

It was a frigid 1:00 a.m. on January 18, 2018 when the city Ürümgi was enveloped in the icy arms of an arctic winter storm that dropped temperatures well below -22°C. Dripping water froze into manic ice sheets on aircraft exteriors and breath became as steam as the entire planet was seemingly thrown into a deep freeze.

Despite of these subzero conditions, more than 20 fully-equipped aircraft cleaners were lining up on the apron at Ürümqi Diwopu International Airport, preparing for work. So as not to delay passengers' journey, China Southern usually makes arrangements for cleaning their departing aircraft in the early morning hours.

Aircraft Cleaning Manpower

Aircraft cleaning requires considerable manpower but it is not that kind of job that every person should think of trying. Workers must attend pre-job training sessions and acquire the appropriate airfield qualifications. They also need to prepare their technical documents, tools and equipment and pay close attention to workplace safety.

Cleaners working in the interior of these frigid aircraft cabins will have already prepared towels of four different colors for cleaning different sections of the aircraft interior. For example, white towels are for cleaning seats and cabin walls, while Khaki-colored towels are for cleaning toilets and cabin floors. Within the flight deck, aircraft cleaner Xiaole took great care on cleaning the instrument panel. "We can't use fuzzy towels to clean aircrafts or use metal tools to clean precision instruments to avoid magnetic field effects that would affect

Society

• "Bathing" Aircrafts In Full Armor

It became colder as the wind was blowing violently. Aircraft cleaners are fully equipped, wearing heavy sweaters and rubber gloves. The breath escaping from their neckerchiefs gathered in a white mist, rose above their heads and then dissipated in the night.

At the end of a short pre-shift meeting, Captain Xu Dong distributed tools guickly and started cleaning. They switched on the heaters, dampened d the cloth and got down to cleaning in an orderly manner. Captain Xu Dong said that they had to clean three aircrafts that night. The time needed depends mainly on the dirtiness of the aircraft. In winter, aircrafts here are so dirty that it often takes around 1 hour for more than 20 cleaners to clean a new aircraft and 3 hours for an old one. And when it comes to large aircrafts like Boeing 777, at least 6-8 hours are needed.

the functionality and accuracy of the instruments." He added that all the tools and detergents used for cleaning must comply with safety regulations which is again stipulated during all precleaning briefings to ensure that no instruments and equipment onboard will be damaged.

By 7:00 a.m. each morning the overnight cleaning crew's work is done. Their eyebrows were covered with thin ice and their hands were stiff and numb from the cold. They are not "magic" fighters who are afraid of freezing. Instead, they are doing their important part to the mission for flight safety.

Xu Dong said, "It's a tough work, but it's all worthwhile since the cleaned aircraft gives an added sparkle to passengers in the early morning hours."



Flight Operation Management

Flight operation management is a key element of safe flight operations. China Southern has formulated the "Flight Operation Management Handbook, Operation Rectification Supervision System and Operation Incident Investigation Regulation" as well as other standardized procedures to regulate the management of aircraft operation dispatch, monitoring and supervision which in turn enhances flight quality and reduces operational risks.





Unified Flight Dispatch Management

An important initiative contributing to the Global Operation program, China Southern's senior managers have advanced the "six unities" of flight dispatch, including unified dispatch policy, unified work flow, unified background data, unified personnel training, unified release standard and unified business supervision. This dynamic initiative improves the accuracy of aircraft dispatch, the reliability of the macro flight schedule and further regulates flight release decision-making.Concurrently, China Southern launched the dispatcher qualification management information system and built the first professional qualification information management and control platform for flight dispatchers in China. These steps help realize intelligent management of aircraft dispatch, automatic early warning of dispatcher qualification information and reducing the risk of potential dispatcher qualification failure.

Aircraft Operation Monitoring

During Year 2018, the CAAC elevated its attention to flight tracking to an unprecedented level. Through analyzing the division of responsibilities and technical means, China Southern further upgraded its flight tracking systems by upgrading the standard message format, optimizing the alarm function, enhancing the telegram monitoring and processing efficiency and other functions which buildup flight operation monitoring service capabilities.

Crew Building

The qualifications and abilities of each flight crew have a great impact on every flight flown - every day. China Southern regards crew management as a core foundation of safety management and strives to build quality flight crews by strengthening capacity building, qualification examination and other measures so as to protect passenger safety, including:

Stringent training- The Company

insists on stringent flight crew training and has introduced the "knockout system" in new hire training, initial modification, retraining and pilot training. The Company improves pilots' skills by establishing a sound enrollment and withdrawal system for stimulator trainers and inspectors and by holding quarterly "flight operation lectures".

"Checklist of Special Discipline



Employee

Society

Work style construction- Airline senior managers formulated the Correction and Special Qualification Investigation for Guangzhou Base", whereby 11 requirements and 46 specific measures were identified from such aspects as proactive reporting and credibility culture to strengthen pilots' strict discipline.

Qualification investigation- The Company continues to carry out qualification and ability investigations by focusing on flying officials and new pilots, striving to solve the shortcomings in qualification and capacity building and build a high-quality pilot team.



Case Study: Flight Portal Aids **Flight Operation Training** Management

The Flight Portal System independently developed by China Southern Airlines – saw its launch in January 2018 and since that date, pilots' qualifications, records, certificates, operations, practice, training and other key documents have been integrated into the "big data" system for centralized management. With this inclusive data system, managers can be kept instantly informed of pilot data to provide important decision making support for the training and



Counter Terrorism

As the global terrorist situation continues to intensify and onboard incidents increase, emergency capabilities is a critical challenge facing the safety management of every airline. China Southern proactively released its revised version of the "Emergency Response Handbook", whereby incidents are classified and rated according to the requirements of the Global Operation program. Front-line staff disposal procedures have been classified to enhance realtime practicability. In addition, the Company doubled the number of emergency drills including a Headquarters-Dalian base "air blast threat" joint emergency rescue and "in-flight disease outbreak", to enhancing the capabilities of flight crews and security officials to manage emergency challenges.



Emergency Disposal Skills

On November 21-23, 2018, China Southern organized an internal competition of security personnel to gauge their emergency response skills. Senior managers assessed three main criteria including computer-based testing of air defense theory; desktop deduction and cooperative emergency disposal for airport security control which aided to improved the security control operational theory and the ability of air defense safety officials to manage onboard emergencies.



Passenger Health and Safety

China Southern Airlines pays close attention to the safety and health of all passengers during flight and has formulated such systems as the "Aviation Hygiene Management Handbook and the Operation Manual" to tighten supervision and inspection of onboard food, drinking water and vector control to create a healthy flight environment for passengers and flight crew. Concurrently, the Company has established the system of providing active aid for passengers stricken by sudden injuries and diseases.

Food Hygiene and Safety

The Company inspected 987 contracted catering service providers, issued 455 copies of on-site supervision opinions, and organized up to 1,993 person-time hygiene training for catering staff to ensure the hygiene of ground meals.

Safe Onboard Drinking Water

During Year 2018, the Company completed 272 microbiological tests and 55 physical and chemical tests of onboard drinking water, inspected 221 water supply units, and organized 91 person-time hygiene training, China Southern is a member of the IATA Drinking-Water Quality Pool (IDQP) which was created by a number of airlines to share audits on drinkingwater quality around the world. IDQP also developed its own procedures for conducting airfield inspections, using the highest quality standards. IATA IDQP performs safety audits of onboard water according to IDQP requirements so as to ensure onboard water safety.

987

1993

inspected our contracted catering service providers person-time hygiene training for catering staff



Case Study: 64 Tons of Fuel

On February 4, 2018, a passenger onboard Flight CZ328 from Los Angeles to Guangzhou suffered a sudden stroke after the flight departed. After performing immediate medical treatment, the flight crew initiated an emergency plan which required the dumping of 64 tons of fuel over the Pacific Ocean and made an emergency landing at Ted Stevens Anchorage International Airport in Alaska.China Southern crew members radioed to the airport's ground service team for medical rescue preparations and immediately coordinated with customs, police and emergency personnel for additional ground arrangements. Within five minutes after the plane landed in Anchorage, the afflicted passenger was swiftly moved out of the aircraft cabin and transported into to an awaiting ambulance for immediate hospitalization and medical care.

Society

Onboard Vector Control

The Company has engaged outsourcing professional disinfection companies to carry out regular disinfection for all aircraft to prevent vector spreading on the aircrafts and guarding passengers against vector invasion.

Medical Audit and Assistance

To ensure the health of all passengers, China Southern established a boarding check-up system for special passengers. During 2018, aviation physicians provided medical opinions to 593 ill passengers as well as people with a disability and gave boarding rejection opinions to 30 passengers. For onboard passengers stricken by sudden illness, China Southern has formulated the "Guidelines for Handling Passengers Stricken by Emergency Injuries and Diseases During Flight", granting flight attendants the right of first aid and requiring China Southern's branch operations at the locality of the passengers to act as the entity responsible for followup disposal and assisting passengers in seeking medical treatment.

Occupational Health and Safety

Safety and health are the bedrock principles of China Southern Airlines and a prerequisite for all senior managers and staff. China Southern has placed a premium effort in improving the occupational health management of the Company by curbing, correcting and dealing with violations against work safety laws and regulations and preventing infringements of employees' rights and interests. During the course of Year 2018, China Southern reported one work-related death and 14,485 working days lost.

Note: we deeply regret that one employee of China Southern Airlines died suddenly at work in 2018. China Southern will further improve the management of the occupational health of employees and strengthen health education of employees to ensure our employees can work healthily.

Aircrew Health

Attention to Pilots' Mental Health.

Throughout the course of Year 2018, all pilots were requested to add mental health descriptions on their personal declaration on health before going on duty. As a responsible employer, China Southern Airlines helps pilots alleviate mental stress and, when needed, issues a suspension order and arrange medical treatment for those affected with mental challenges.

Attention to Flight Attendant Health.

Aviation physicians have been incorporated into the China Southern aircrew and are responsible for giving health lectures and tend to the needs of the aircrew. In addition, newly hired flight attendants receive health education courses during their pre-job training period.

Health of Ground Service Staff

Ground Service Staff Health.

The Company revamped the physical examination packages offered to staff by adding gastrointestinal endoscopy and other physical examination items as well as streamlined the physician reservation booking system for gynecological examination and continues to offer human papillomavirus (HPV) test for all female staff.

Retiree Health Care.

China Southern cares for its retirees by making 1,503 person-time outpatient arrangements for staff based in Guangzhou; 1,023 individual blood pressure measurements and 365 psychological guidance arrangements.

29,856

physical examinations were organized for China Southern aircrew

examinations for ground service staff





Case Study: "China Southern E-Heath" APP

"China Southern E-Heath" APP was brought on-line in late September 2018 ... a new mobile health service application where staff can obtain a real-time health consultation review of on-line medical guides and other information. China Southern aircrew can also file an online appointment for occupational physical examinations.



Environment Management

During Year 2018, China Southern enhanced its energy conservation and emission reduction efforts with an ecological and environmental protection enhancement work group that is focused on environmental management and preventing environmental risks. The Chairman and General Manager of the Group serve as the senior leadership team as subsidiaries and stationed units are now required to establish corresponding work groups. Additionally, China Southern issued a "Guiding Opinion on Enhancing Ecological and Environmental Protection" document which puts forward Company requirements on guiding ideology, basic principles, overall objectives, organizational structure and priorities in ecological and environmental protection services, and guides the gradual implementation of the ecological and environmental protection work of the company.



Assessment



protection.

Environment

esponsibility Report of China Southern

Sunshine Operation Jointly Building a Beautiful China

Protecting the ecology and living in harmony with nature is the driving mantra of China Southern which regards ecological and environmental protection as the core of its sustainable development which improves the airline's environmental management, energy saving, emission reduction and biodiversity conservation, active response to climate change, and asserts practical actions to help win the battle of pollution prevention and control, making definitive contribution to the building of a beautiful China.



Case Study: China Southern and International Air Transport Association (IATA) Sign a Strategic Cooperation Agreement on Environmental

On April 10, 2018, China Southern signed a framework agreement on environmental assessment with IATA and started the construction of an IATA environmental assessment system. Using the IATA Environmental Assessment System as its template, China Southern has established its own environmental assessment mechanism and has launched an internal research program to improve the airline's environmental and operational efficiency and constantly improve its environment and energy management systems.



Case Study: Focused Ecological and Environmental Protection

On November 27, 2018 China Southern held a launch meeting in which China Southern senior managers began analyzing new trends in ecological and environmental protection both in China and worldwide and developed proposals to carry out the ecological and environmental protection work in six fields: energy consumption, resource consumption, greenhouse gas emissions, atmospheric pollutant emissions, waste emissions and noise emissions. China Southern is taking a leadership role in shouldering its responsibility in the construction of an ecological civilization through "green development planning", integrated ecological culture, energy conservation and environmental

Response to Climate Change

All airlines contribute to carbon dioxide emissions and with the establishment of the international aviation carbon offset and emission reduction market mechanism and the establishment of national carbon market in China, airlines across the Motherland are facing more business risks and increasingly higher operating costs. Senior airline managers are keenly aware that improving energy efficiency and reducing carbon emissions are important measures for the Company to achieve its sustainable development and enhance its global competitiveness. The Company consciously assumes the responsibility of energy saving and emission reductions to cope with climate changes.

China Southern strictly enforces the: Air Pollution Prevention Law Energy Conservation Law Measures for Energy Conservation Management of Key Energy-using Units, Regulations on Fuel Discharge and Exhaust Emissions from Turbine-Engine Aircrafts Detailed Rules for Energy Conservation in Transportation Industry Planning for Energy Conservation and Emission Reduction in Civil Aviation Industry during the 13th Five-Year Plan, and Other policies and regulations concerning environment protection, energy conservation and emission reduction of the civil aviation industry.

Based these real-world environments, the Company also formulated a series of internal control systems such as: Management Manual of Strategic Planning Management Manual of Energy Conservation and Emission Reduction, and Management Processes for Energy Conservation and Environmental Protection, Management System for Energy and Environmental Protection to promote the implementation of energy conservation and emission reduction work and minimize the impact on the environment.

Emission of Greenhouse Gases

Greenhouse gas emissions of modern jet aircraft generally come from fuel consumption, and other sources including energy consumption on the tarmac such as gasoline, diesel, natural gas, liquefied gas, coal, purchased electricity and aircraft heating. China Southern attaches great importance to energy management and the reduction of greenhouse gas emissions in its daily operation flight operations and has set the highest standards for fuel consumption and the increase use of clean energy.

Fuel consumption (10,000 tons)



Fuel consumption per ton-kilometer (tons/10,000 ton-kilometers)

2016	3.00
2017	2.91
2018	2.82

Carbon dioxide emission (10,000 tons)



Carbon dioxide emission per ton-kilometer (tons/10,000 ton-kilometers)

2016	9.45
2017	9.16
2018	8.88



Promotion of Green Flight

Supported by Big Data

China Southern has independently developed the "Fuel e-Cloud" data platform, which provides real-time monitoring of each aircraft planned refueling volume, actual refueling volume, fuel consumption for each flight segment and other time sensitive fuel data that provides data support for the line management of aviation fuel and improving fuel use efficiency.



With the goal of improving the extensive management of fuel data, China Southern independently developed the "Fuel e-Cloud" data platform which can realize the real-time monitoring and accurate prediction of fuel consumption.

On May 24, 2018, the "Fuel e-Cloud" data platform of China Southern was connected with the ERP system of China National Aviation Fuel, which can realize the rapid acquisition of refueling data for more than 80% of China Southern's domestic flights and support the management of fuels which in turn reduces aircraft operating costs.

104

In 2018, new aircrafts were introduced

18

old aircrafts were withdrawn

6.5 years The average age of the aircrafts in the fleet

The optimization of the fleet helps to reduce fuel consumption and carbon dioxide emissions.

Application of New Technologies

New engines with light and thin seats were adopted to improve cabin layout and reduce aircraft fuel consumption The application of electronic release module of electronic flight pack (EFB) realizes electric and paperless navigation charts and airborne handbooks for weight reduction QAR data analysis system for aviation safety was developed as attenuation data of each aircraft engine helps control refueling volumes and added reduction of airborne fuel





Society





Our Story: Small Electronic Flight Bags.

Every passenger aircraft is an important means of transportation but most passengers do not know that every aircraft carries a box of paper flight materials weighing about 40 kilograms. According to the current utilization rate (10 hours/day) of each of the 603 aircraft in the fleet, these paper materials will increase the fuel consumption of China Southern by more than 2641 tons per year and the total dioxide emissions by nearly 8420 tons each year.

As a responsible enterprise, China Southern has long noticed the negative impact of heavy paper flight materials on the environment. Based on this, China Southern, with its own research and development resources, develops data storage tools to replace paper boxes, thereby reducing fuel consumption and carbon dioxide emissions, and reducing environmental impact.

Through the continuous explorations and attempts of the R&D team, China Southern develops a customized system highlighting the characteristics of

> China Southern - Electronic Flight Bag (EFB). This system, which stores the airborne paper data needed in the flight phase in a tablet computer for pilots to use, not only makes data extraction more convenient, but also greatly reduces the impact on the environment. China Southern has become the first Chinese airline realizing the electronization of paper-based data and the electronic release for the whole fleet, and has entered a new era of paperless operation for the whole fleet.

After the EFB was put into use, all flights of China Southern departing from domestic (China) airports stopped issuing paperbased documents. More than 3,000 flights are involved each day, which means more than 150,000 pages of documents are no longer needed to be printed. The Company estimates this single action will save an annual operating cost of more than 15 million yuan and reduce paper consumption by 9.9 tons.

Electronic Flight Bag (EFB) is only a glimpse of the green development of China Southern. China Southern is committed to minimizing the impact of every aspect of its operation on the environment.

Participation in Carbon Trading

Relatively unknown outside the aviation industry, this is an important measure to implement carbon emission management and respond to global climate changes. According to the rules and regulations of European Commission and the CAAC, China Southern participates in the EU carbon trading for flights commuting between two destinations within the European Union and assists in the formulation of relevant technical rules of carbon trading for the civil aviation industry in Guangdong, thus reducing the international and domestic overall performance costs year by year. During Year 2018, China Southern (and its Zhuhai Branch and Shantou Branch) successfully completed the implementation of Year 2017 carbon trading in Guangdong Province.

Reduction of Ground Emission

Ground emissions include wastewater, waste gas, noise and hazardous/non-hazardous wastes generated by ground operation. Although ground emissions are far less than those of aviation/flight, they also have a direct impact on the environment. China Southern strictly abides by the requirements of relevant laws and regulations such as the "Environmental Protection Law of the People's Republic of China" and continuously improves the efficiency of water use; reduction in aircraft exhaust emissions; taps ground emission reduction potential by improving its waste management oversight; implementing "green" offices and other measures taken that collectively reduce the impact on the environment.

Water Resources Management

Water resources conservation

For airlines, aircraft cleaning and onboard drinking are main sources of water consumption. We pay attention to the conservation and protection of water resources. In the aspect of aircraft cleaning, we choose the dry-cleaning process instead of the washing process to reduce the water consumption from aircraft cleaning by more than 80%, which greatly reduce the discharge of wastewater while saving water. In terms of on-board drinking water, we implement precise water addition in cabins to reduce water waste, and achieve fuel-saving purposes while reducing weight for the aircraft.

Total water consumption (in 10,000 tons)

2016



of industrial wastewater 0.5325^{m³/10,000} yuan

During Year 2018, the water intensity per unit output of China Southern

11.66 representing a year-on-year decrease of



Society







production of airline foods

The treatment rate of waste water is

Wastewater treatment

All on-board wastewater, industrial wastewater and wastewater generated during the production of airline foods are being disposed of strictly in accordance with the Water Pollution Prevention and Control Law of the People's Republic of China, Integrated Wastewater Discharge Standard for Guangdong Province, as well as other relevant laws and regulations, to ensure that the discharge of the wastewater is up to standard.

On-board wastewater. Discharging wastewater in strict accordance with the requirements of relevant aircraft manuals, we collect wastewater with special wastewater collection trucks, and then hand the wastewater to qualified wastewater treatment plants for disposal.

Industrial wastewater. Wastewater used for the cleaning of aircrafts and their spare parts which contains faded paints should be processed by our wastewater treatment station and then be discharged after reaching the standard.

Domestic wastewater. China Southern's Nanland Air Catering Company Ltd., is the largest air catering center in the nation and has two wastewater discharge outlets, one for the discharge of industrial wastewater and the other one is for the discharge of domestic wastewater. The discharge outlets are standardized (according to environmental protection requirements) and are handled and operated by dedicated personnel to ensure that the treatment facilities for environmental protection of the wastewater treatment station are operating normally.



Waste Treatment

Treatment of hazardous waste

In strict accordance with the relevant requirements of the Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Wastes, China Southern standardized and decontaminated waste cleaning agents, waste lamps, toner cartridges, waste kerosene and waste engine oil generated during ground activities and maintenance and engineering activities.

Treatment mode

	ification of rdous waste	Treatment mode	Treatment capacity (in tons)	
	Waste kerosene		250.48	
Maintenance and engineering	Waste oil		88.89	
	Waste cleaning agent	All kinds of waste products should be classified and collected in a centralized manner according to China's Hazardous Waste List, and be disposed of by companies with hazardous waste treatment qualifications.	63.14	
	Waste organic solvent		22.49	
	Paint coat and slag		18.30	
	Waste activated carbon		15.00	
	Waste acid		0.23	
	Waste encasement and container		25.96	
	Waste lamp		0.38	
	Waste lead - acid battery		5.71	

490.559 tons

China Southern treated tons of hazardous waste from maintenance and engineering activities

with a treatment rate of **100**%

6597^{m³}

of non-hazardous wastes produced from on-board services were processed

with a treatment rate of **100**%

27840

China Southern Airlines handles exhaust gas

Treatment of Non-Hazardous Waste

China Southern adheres to the principles of "volume-reduction" and "holding harmless" in the management of non-hazardous wastes produced from on-board services and ground activities, to promote the sustainable use of resources.

non-haza

Gene (inclu On-board mate service mag

Treatment of industrial waste gas

gases were so treated

zardous waste	Treatment mode	Treatment capacity (in m³)
neral industrial waste Iuding cabin food packaging terials and recyclable gazines)	Be disposed by qualified recycling companies after centralized recovery.	6597

Certain industrial waste gases are generated during aircraft painting which will have a potential impact on people's physical and mental health. China Southern actively implements relevant national laws and regulations on exhaust emissions and occupational health and safety protection and professionally treat industrial waste gases with our waste gas treatment facilities and then emit them only after they reach the national standards. 278.4 million m3 of waste



Enterprises Noise at Boundary".

Noise Abatement

Protection of Biodiversity

Extended reading:

What is Buckingham

Palace Declaration?

initiated by United for Wildlife to strengthen cooperation of

various entities, government

departments and animal

protection organizations to

curb the illegal trade and

smuggling of endangered

worldwide. At present,

more than 70 airlines,

shipping companies and

industrial organizations,

including International Air

Transport Association, have

signed Buckingham Palace

Declaration.

wildlife and wildlife products

The Buckingham Palace Declaration is an agreement

Biodiversity, the condition that human beings survive, is the basis for sustainable economic and social development. After signing Buckingham Palace Declaration in November 2017, China Southern established relevant rules and regulations based on its realities and followed and implemented 11 commitments stated in the Declaration. We protect the biodiversity via curbing illegal transportation and trading of wildlife and wildlife products.

Training and Publicity

The Company aggressively publicizes its commitment to wildlife protection and has provided enhanced staff training in transportation of endangered species/wildlife as well as the identification of illegal wildlife trade which in turn raises the awareness of customers and staff on wildlife protection.

Service Guarantee

active service guarantee mechanism and procedures were established for wildlife protection, including transportation demand confirmation, transportation capacity assessment, pre-assessment of collection, special support for stations involved during the transportation and real-time progress tracking, providing high-quality services for wildlife protection

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Case Study: The Injured Snow Leopard "Lingxue"

On February 6, a snow leopard from Qinghai Province was discovered to have a fracture to her left hind-leg, and needed to be flown by China Southern Airlines to Beijing for an emergency operation. After receiving the initial flight inquiry from the senior veterinarians at the Xining Wildlife Park, China Southern acted quickly to ensure the transportation safety of Lingxue and a special airline team was immediately organized to formulate a transportation plan including the all-important loading and unloading of the animal. The snow leopard was separated from all other cargo and kept in a comfortable and safe "exclusive" cargo hold. China Southern flight CZ6992 departed with the very special "passenger" on board, and arrived several hours later at Beijing. The snow leopard recovered well after the operation and came back to Xining by the flight of China Southern on May 11. Till then, the air transportation task was completed successfully



While practicing its "green" development, China Southern also strives to transmit these environmentally friendly concepts to the public and all airline passengers. The Company strives to guide the public in cultivating environmental awareness and conservation awareness and choosing a low-carbon, economical and "green" lifestyle and consumption mode and jointly participate in the process of sustainable development of the human society.

Green E-service

Electronic Freight Orders

Through electronic service platforms such as "China Southern e-Travel", China Southern provides one-stop electronic services for passengers including twodimensional code electronic boarding and electronic invoices which aids in reducing paper waste.

electronic freight orders at 81%.

the Canton Tower in Guangzhou.

Green Week

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Call for Carbon-Neutral Flights

From June 11 to 17, 2018, China Southern launched a national energy-saving publicity week with activities calling for energy savings and emission reductions carried out at 10,000 meters on board each aircraft; in the VIP lounge and the boarding area of China Southern's Airbus A380 from Guangzhou to Beijing to popularize the concept of low-carbon travel for passengers.



Safety Service

Employees

Society

By the close of Year 2018, China Southern has promoted the electronization of all freight orders at 39 departure airports and 137 arrival airports, with the usage rate of

It is estimated that the more than 1.5 million paper freight orders will be saved every year - which if piled one on top of another - would be three times as high as

Through the green week activities, we make use of our own media resources to widely publicize the concepts of energy saving and low carbon, and enhance the passengers' awareness of low-carbon travel.



Case Study: China Southern Advocates "Green" Travel

From November 5 to 7, 2018. the Himalavan Summit of China Adventure Tourism Forum was held in Kathmandu, the capital of Nepal.

An "Environmental Volunteer Team" sponsored by China Southern traveled to Nepal's Hiking "Holy Land" and through a series of environmental volunteer activities, the Nepal Tourism Environmental Protection Initiative was launched to enhance the environmental awareness of tourists to Nepal. This is the second environmental protection initiative sponsored by China Southern after issuance of the "Antarctic Tourism Environmental Protection Initiative".



64

rate Social Responsibility Report of China Southern Airlin

2018 Co



Service for Passengers

Improving On-time Performance

One of the most important issues for passengers of any airline is its on-time reliability.

China Southern has modified its "Regulations on Management of On-Time Rate of Flights and issued the Work Program for Upgrading On-Time Rate of Flights" in Year 2018 to improve its on-time reliability:

> Company staff consistently research daily weather patterns and with the input of the flight crews to determine (early each day) if the weather is suitable for flight or if conditions which may require a delay, cancellation or the merger of one or more flights to a specific destination as well as effectively responding to summer typhoons and other natural challenges to normal flight operations.

Service

Sunshine Services Warming Every Journey

It is one of the most important goals of our customer service to make passengers arrive at their destination happily and to bring a moving flight experience that exceed the expectation of passengers. Adhering to the service concept of "offering sincere services to move customers and ourselves", China Southern continuously improves service management, upgrades service quality, promotes service convenience, and strives to provide professional, efficient and warm service for passengers. We hope that can warm every journey of our passengers. Society

Multi-Party Collaboration

Airline senior managers have created a supervisory team to conduct monthly inspections on ground support services for all flights. The team also makes written recommendations of improvements that is shared with airport ground support to add to a more transparent coordination with air traffic control authorities and make full use of flight time resources.

The "Four-level" Early Warning System

Handling Flight Delays

In its case study of flight delays, the onduty captain and front-line personnel will make a rapid inquiry for the most updated information for passengers; including ticket refunds, ticket changes, same-day or overnight hotel accommodation and other services and compensation.

Flight normal rate





China Southern's on-time departure rate is #1 among the top three airlines in China for the past



consecutive years



Intelligent Technologies

With the wide acceptance of 4G technology - soon to be the universal ultra-fast standard 5G - travelers today have very high customer service expectations. China Southern is meeting that need with a massive digital transformation that is constantly augmented to provide near instantaneous information services.

"China Southern E-travel" Mobile Platform

During Year 2016, China Southern was focused on building an easy-to-use mobile client by launching the "China Southern e-Travel" mobile platform. After more than two years of programming, development and additional product enhancements, China Southern launched the "new and improved" China Southern e-Travel and "Internet +" strategy product."China Southern e-Travel" includes the China Southern Smartphone APP; China Southern WeChat Public Account; "China Southern e-Travel" APP and other exciting new mobile platforms to make air travel that much easier. Currently there are 316 functional points available on "China Southern e-Travel" and any smartphone can manage their air travel needs on China's largest airline.

Available in six stages, they are: Pre-flight Travel to the airport At the airport During flight Arriving at your final destination, and Post travel assistance

All it takes is one smartphone to enhance the air travel experience ... as China Southern is focused on improving flight dynamics; seat check-in; issuing electronic invoices; all-channel self-service and flight refunds; meal services and other flight products only available on China Southern.

316 items China Southern Airlines APP online

function

4000Ten thousand

China Southern Airlines APP download activation number

371 million China Southern Airlines full platform visits

3262 Ten thousand China Southern Airlines social media

fans

Global Baggage Inquiry Center, having full control of checked baggage

China Southern has set up a global baggage inquiry center, which enable to display the baggage information at all key processes: check in at departure airport, sorting and loading on board, transshipment at transit stations and delivery at arrival airport. Passengers can timely and accurately grasp the status of checked baggage through China Southern APP.

"I didn't know where my checked luggage had gone in the past, but now I can find it on my mobile phone. I feel much safer."

—— Mr. Zhu, a passenger





Intelligent Check-in

According to the priority of "on-line channel > off-line channel (self-service terminals) > manual counter", China Southern improved the on-line check-in channel and open up the off-line self-service for the whole process, so as to achieve more convenient and faster intelligent check-in and improve our service efficiency.

On-Board, High Speed Internet Connections

43,000 flights.

Service

Employees

Society

In our hyper-connected world, passengers increasingly demand in-flight Internet services on airplanes. During Year 2018, China Southern has 28 aircraft outfitted to provide in-flight Internet connection - available a total of 17,300 flights - and more than 534,600 passengers safely used this high-speed web connection. By late December 2018, 61 aircraft had been upgraded, providing LAN services at nearly 67

Intelligent Airports and Robots!

With the creation and use of cutting-edge technology, intelligent travel is no longer in the realm of science fiction.Within its new home base at Terminal 2 at Baiyun International Airport Guangzhou, China Southern is focusing on building a "smart airport". Electronic boarding passes, robotic responses, "face swiping" boarding and other hightech ideas are no longer a dream, but a real-world experience of passengers at the new Terminal T2 complex. This creates a new benchmark of user-friendly technologies which greatly improve the travel flight experience:

Self-service check-in

China Southern has placed 106 self-service check-in terminals at check-in departure stations which can support the daily check-in procedures of 28,000 passengers.

Self-service inquiry

Intelligent inquiry robots are available for voice inquiry; flight inquiry; baggage loss/registration inquiry; traffic guidance inquiry and service feedback; and other services. Self-service baggage checking

Environment

0-

Safety

Through a unique baggage checking system, independently developed by China Southern, passengers can complete their baggage check-in procedures in mere minutes and can also use mobile phone to pay for any overweight baggage.

2




Enhancing Passengers' flight Experience

China Southern consistently works to improve passenger flight experience with innovate products and services to present passengers a relaxed and comfortable journey.

Lingnan Cuisine

China Southern strives to provide highquality meal service with rich tastes and balanced nutrition by embracing its unique Lingnan/South China culture.

This wonderful cuisine features Cantonesestyle meals with emphasis on special festival food. The airline constantly upgrades the global selection of its cuisine and frequently changes meal selections, the frequency of food types for its domestic and international routes, and ensures that on-board cuisine reflects the rich culture of Southern China.

Enriching On-board Programs

China Southern provides passengers with a variety of on-board entertainment programs to add to a relaxed and pleasant voyage. During Year 2018, China Southern added cultural and knowledge programs to its audio-video on-demand system, and joined hands with Youku to set up an online "Youku Special Zone" and introduced popular Youku self-made and solocopyright video dramas to increase the richness of on-board programming.

Building "Beautiful Cabin"

China Southern has carried out the construction of its "beautiful cabin" by making every effort to promote the deployment of six aspects: behavior norms; work style; occupational image; health environment: theme culture and production performance.

The Company has held competitions to market in its "beautiful cabin" image promotion, ambassadorial contest and the exhibition of "heart-to-heart beauty" service brand.

Characteristic Fragrance Atmosphere

China Southern continues to improve passengers' comfort during the boarding process and during each flight. Since January 2018, China Southern has worked with Prolitec (the world's top fragrance brand) and Firmenich (the world's top fragrance company) to create an exclusive fragrance exclusively for China Southern, entitled "Marine Fresh".

At all Pearl Departure Lounges, international long-distance routes and boutique business routes, China Southern has launched a special fragrance service, to optimize the air quality in the lounges and in the flight cabin.

Special Passenger Service

China Southern is committed to providing high-quality customer services for passengers with special needs, providing personalized and professional services for a range of different groups to extending service accessibility and make the travel of special need passengers safe and enjoyable. In addition, the company caters to the needs of different passengers and provides special catering services.

Baby passengers

Cradle for babies

Warm Services for Special Passengers

Special meals

Special meals can be ordered for all cabins at 21 departure airports, and online special meals ordering service is available on "China Southern e-Travel".

Employee

Society

passengers

Disabled

Wheelchair services on apron, wheelchair service at passenger elevator, wheelchair service in cabin, wheelchair service on board, transportation of electric wheelchair.

Passengers with visual or hearing impairment

China Southern Accessibility Website; free carrying of service dogs; information and security videos with high-contrast subtitles; Chinese and English subtitles.

Unaccompanied minor and elderly passengers

Special waiting areas, book reading zones, children's TV channel, boarding guidance and other services.

71



249173_{People}

Self-help reservation of special meals Year-on-year growth6.9Times

1095 People Baby cradle booking

11419_{People} "Kapok Kids" service

6228 People

Special crowd care SMS

6528 People Online booking for unaccompanied children's services

4726 People Handicapped passenger service online booking

3173 People Elderly assistance service online booking









Employees

Society

Case Study: China Southern Welcomes "Garfield"

During Year 2018, the Company used the classic cartoon "Garfield" (a comic strip created by Jim Davis featuring the oversized orange cat) as an airline pilot of China Southern, bringing a fun-filled travel experience for the airline's junior aviators.

A new "goodie bag" has been prepared using four unique cartoon design themes: "Garfield's World Tour"; "Pilot Garfield"; "Garfield and Food" and "Garfield's Flight Dairy".

Each customized gift bag has a safety information cartoon and a Garfield toy. In addition, small gifts and educational toys of different kinds are also included in each goodie bag to teach youngsters about the experience of travel.

Our Story: Coming Home

On March 29, 2018, Ms. Hu Tingting, a China Southern flight attendant, met a young girl in her teens who had traveled alone from Australia to Guangzhou. The youngster wanted to buy a standby air ticket from Guangzhou to her Shenyang hometown but unfortunately, the last connecting flight to Shenyang on that same day was sold out.

Ms. Hu waited with the teenager at the departure gate without success. The stranded youngster had no relative or friends in Guangzhou and didn't know what to do.

Ms. Hu was worried about the safety of her youthful traveler. She dialed the phone number of the little girl's family and explained the situation to her parents. Ms. Hu proposed bringing the child back to her own Guangzhou home to spend the night and would stay with her until the teenager boarded the first available flight back to Shenyang the following day.

The little girl's mother agreed, thanking her for watching over her daughter and even the little girl's 80-year-old grandma was moved to tears, saying, "Thank God, our child met such a wonderful person in Ms. Hu".

On the morning of Friday, March 30, 2018, Ms. Hu prepared breakfast for her new friend and after arriving back at Baiyun International Airport, the China Southern flight attendant helped her young charge obtain a standby ticket on the first flight from Guangzhou to Shenyang.

Once safely onboard, Ms. Hu called the little girl's family to let them know when the flight was to arrive. Clearly, they were all relieved and after arriving home, the little girl said to her mother: "I slept very well last night. Sister Hu called me many times in the morning to wake me up."

Among those long or short journeys, there may be some unforeseen circumstances. Nevertheless, China Southern consistently provides personalized services to relieve travelers' anxieties and solve many challenges that arise during the journey.

> 9.9 A same 5 River Fill H

"I will never let my child stay alone at the airport for a whole night. I must let her be by my side."

66

----Hu Tingting, one attendant of the Ground Service Support Department



Society

Our Story: Spring-like Warmth

During the winter vacation of Year 2018, Mr. Zhou's child, Zhou Zikai, participated in an Australian Winter Camp. However, after arriving in Australia, the 11-year-old Zhou felt very sick and the local doctors suggested that he return back to China as soon as possible.

The elder Mr. Zhou was very anxious after hearing the news and immediately contacted China Southern about the fastest way to return of his young son back to China.

According to the CAAC, unaccompanied minors under the age of 12 should apply for this service 72 hours in advance. However, taking into the medical emergency considerations, China Southern airport managers in Guangzhou fast-tracked the relevant procedures for Zhou Zikai and immediately placed the youngster on the next China-bound aircraft and arranged for an on-board nurse to care for him.

Upon arrival, the staff of China Southern accompanied Zhou Zikai throughout the journey and immediately presented him safely back to his father.

"China Southern gave Zhou Zikai and our family spring-like warmth, thank you for your help and humanized and personalized service. I sincerely hope that China Southern is getting better and better!"

——Mr. Zhou

Freight Transportation Services

China Southern Cargo

China Southern established the China Southern Cargo under the concept of "first-class cabin for freight transportation". We are committed to "providing prior and quality transportation for cargoes on designated flights", and providing customers with VIP windows, priority booking, early delivery, extended time limit, SMS tracking, extremely-fast picking, free change, special line inquiry, customer customization and other services.

Temperature Control Services

China Southern provide temperature control services for fresh and perishable cargos.

Benchmarking against international advanced services, the Company introduced advance temperature control equipment; upgraded its cold storage facilities; extended the application scope of cold storage; improved management procedures for the use of cold storages and actively promoted CEIV certification and its internal improved temperature control service standards.

At present, the Company provides for the transportation of fresh seafood, chilled/frozen seafood, fruits, medicines and fresh cut flowers.

28 63 6 5 4 5

We have **14** Freighters now, including **12** Boeing 777 Freighters and **2** Boeing 747 Freighters. We have opened **12** all-cargo routes with more than **50** airlines. The airline network has penetrated than **300** cities in Europe, America, Asia, Africa and Australia.

THE SEE AS





Passenger Relations

Protecting Passengers' rights and Interests

China Southern actively protects the rights and interests of all its valued passengers including safeguarding member benefits; all FFP mileage accrual and exchange for members of the Sky Pearl Club; FFP mileage registration; airport lounge services; flight transit services; baggage allowance and other rights and interests.

In addition, China Southern formulated the "Operation Procedures for Service Compensations and Authorization Systems" to further compensate passengers for deficiencies in sales services, ground services and on-board services and initiate the trial run of the service compensation authorization in an offline manual way, so that passengers can apply for compensations (mileages and cash coupons) for deficiencies in on-board services through a mobile system on board.

Protecting Passengers' privacy

China Southern has created and developed a privacy policy to ensure the security and standardization of the use of passenger information. The Company employs state-of-the-art Secure Sockets Layer (SSL) encryption technology to protect against network security risks and work with its partners to protect passengers' privacy and information security.

During Year 2018, China Southern launched the "General Data Protection Regulation" (GDPR), which protects passengers' privacy with practical applications.

The Company received zero complaints during Year 2018 relating to the infringement of passengers' privacy or loss of passenger data due to information system security lags.



Passenger Complaint Management

China Southern pays attention to passengers' opinions and suggestions, listens carefully to passengers' feedback, and manages and optimizes service processes and standards to quickly respond to and handle passenger complaints and improve service quality.



0	

The Company launched a "Customer Care Management Manual" \rightarrow which unified the complaint management system and clarified the principles of "first asking responsibility system", "active processing" and "localized processing".

Efficient Management of Passenger Criticisms





Overdue Complaints

The Company has set up an "Overdue Complaint Improvement Project Team" to sort through issues that are reflected in the complaints of passengers and to solve any time-sensitive grievances.

China Southern Airlines complaint rate

Million points 24.65

During Year 2018, airline senior managers placed a premium on managing these grievances and achieved many positive results as the airline's domestic business departments realized zero complaints, and the number of overdue complaints originating from China Southern's international offices decreased by 41.87% year-on-year.

Employee

Society

brief report

The Company published a "Service Pre-Warning Brief Report" every month \rightarrow which set up a disposal plan in advance to reduce complaints with active care.



A management system

The Company uses pop-up screens to remind staff to overdue complaints, and launched a mobile version management system which makes it easier for all units to monitor and handle complaints.

The Company created a passenger care center to uniformly accept, track and give prompt feedback to passenger complaints and improve the efficiency of passenger complaint

Customer Satisfaction Survey

management through multiple channels and uses SMS, APP, WeChat, questionnaires or other uses SMS, APP, WeChat, questionnaires or other forms of instant communication to appreciate passengers' satisfaction with its air services, ground services, catering and other customer services.

offered from its customers and pays great services by SKYTRAX, www.ausbt.com and www. carnoc.com to continuously improve its customer service levels and increase overall customer

.51 4.



China Travel Awards for Best On-board Catering on European Routes

Institute for Aviation Research

Brand Finance (UK)

Employees

Ranked 6th in the global brand value of the 2018 aviation industry, ranking first in Chinese airlines.

2018 Corporate Social Responsibility Report of China Se



Human Resources Management

China Southern continuously refines its human resource management system and offers competitive remuneration packages to its senior managers and staff while protecting the rights and interests of its employees and meeting the growing needs of its employees for an optimal work/life balance.

employment contract coverage of

100%

social security coverage of

100%

HR violations

China Southern strictly abides by the "Company Law of the People's Republic of China, Labor Law of the People's Republic of China" and other relevant domestic and international laws and regulations. The Company has formulated the "Recruitment Management Regulations" and other policies in accordance with real-world conditions and resists any abuse of human rights while advocating fair and non-discriminatory employment policies. Airline senior managers are pledged to treat employees without discrimination based upon gender, ethnicity, nationality, health status, religion, politics and/or marital status and has worked to eliminate all forms of forced labor and/or child labor. The Company has created fair and just employment opportunities based upon individual talents while protecting the legitimate rights and interests of employees by regularly negotiating with trade union representatives and signing collective contracts or similar. In order to defend against potential HR incidents, China Southern has established a human resource evaluation system to conduct comprehensive inspection and evaluation of the Company's HR efforts, with emphasis on:Organizational planning, Recruitment and allocation, Training and development, Compensation incentives, Performance management, Employee relations, and ,Social security management. Airline senior managers are meticulous in investigating potential HR issues found in accordance with the "Administrative Provisions on Disciplinary Actions for Violations by Employees".

Employee

Sunshine Caree

Committing to Co-development

Individual talents are an invaluable resource for China Southern Airlines which holds fast to its talent concept of "people-oriented, inclusiveness and co-development" to protect the basic rights and interests of all senior managers and staff. The Company strives to create a harmonious and active working environment for each staff member while striving to enhance each employees' sense of happiness and professional growth.

Society

Employee Rights and Interests





Employee Diversity

China Southern advocates staff inclusiveness and insists on appointing people based merit, attracting talents from home and abroad in the spirit of inclusiveness.

The Company has built a diverse workforce to continuously meet its demands for internationalization.

In 2018, China Southern recruited

4476 new employees, including 77 non-Chinese employees.

The total number of employees is

100831

Employee turnover rate of 3.79%



Male: 59545people



- China (except Guangzhou): 73789people
- Overseas: 2034people





To fully mobilize the enthusiasm of employees, China Southern Airlines, on the basis of our management realities studied and formulated the Employment and Remuneration System Reform Plan which covers the many aspects of HR management, such as post, performance appraisal, total salary and salary system, as we implemented the policies and guidelines of the Party Central Committee, the State Council and SASASAC on the reform of state-owned enterprise. Under the guidance of the market prices of labor forces, the Company provides all staff with welfare guarantees according to relevant national policies.



Case Study: Moving into the Implementation Stage

During Year 2018, with the goal of improving management efficiency and incentive compensation within the Company, China Southern developed an "Employment and Remuneration System Reform Plan" (ERSRP) covering the HR management system.

Six units were selected as pilot tests for the implementation of ERSRP and will be completed in 2019, including:

Shenzhen & Wuhan Branch of China Southern China Southern Capital Holding Co., Ltd. China Southern Airlines International Financing & Leasing Co., Ltd. China Southern Airlines Group Finance Co., Ltd., and The Ground Service Support Department of China Southern

Diversified Welfare

Statutory welfare



staff with

China Southern Airlines provides

Basic endowment insurance Basic medical insurance Supplementary medical insurance Work-related injury insurance Maternity insurance Unemployment insurance Personal accident insurance Pilot disability insurance Employer's liability insurance Aircrew special life insurance Enterprise annuity, and Housing provident funds

all statutory (national) holidays as well as offering staff: Maternity leave Nursing leave Breastfeeding leave Paid annual leave Family leave Marriage leave Sick leave Birthday leave, and

Funeral leave

Holiday welfare

The Company honors

Existing Remuneration System

Executives

Amortized on an annual basis, salaries includes basis annual salary and annual merit pay that relates to unit assessment and personal

Aircrews

Paid a "duty salary + salary for

Ground crews

Paid in accordance with post and performance as salary includes basic salary, which is determined by the crews' company performance and

Democratic Communication

China Southern actively promotes democratic management by encouraging the participation in the Employees' Representatives Conference which serves as an advocate with the airline's senior managers and gives voice to staff concerns. The ERC listens to the many voices from the China Southern staff and works to provide solutions to issues that employees care about. The Employees' Representatives Conference also collects and replies to specific proposals from staff representatives as well as in-depth research on topics of staff concern.

Employee Development

The growth and development of all staff members is critical to enhancing the competitiveness of China's largest airline.

China Southern has established a comprehensive training system and promotion channel to provide staff with a broad development platform to enhance their personal and professional value.

positions.



Characteristic welfare



Annual Physical Examinations

China Southern provides a complementary physical examination for all employees each year.

Employees

Society



Employee Training

Through the combination of "online + offline", the Company develops a variety of training courses to meet the development needs of employees of different types and

434,000

Total person-times of staff trained in the whole year (excluding Xiamen Airlines and China Air Service Ltd.)

The training coverage reached

% (excluding Xiamen Airlines) and China Air Service Ltd.)

Pilot Training

theory training;

to help pilots

simulator training:

routine training and

regular assessments

continuously improve their flight skills.

The Company has

aggressive set of pilot

training standards and



Offline Training

China Southern has developed a variety of offline training courses to assist staff in improving their professional skills and provide talent support for our internationalization process.



The Company uses the "3+3" program for newly hired flight attendants and ground service training modes that enable the transition training and talent building.

Online Training

With intelligent analysis and online platform such as PC learning platform and mobile APP, we have developed online training courses to further improve the quality and efficiency of staff training







English

English Training

English proficiency test modes including the development of English

led multi-type and

multi-frequency English

training classes for flight

communication energy

Our Story: The Life of a Borescope Engineer

Success does not come by accident. Guo Quanhua is one example who became attached to his self-made borescope and became made himself a real "Guangdong Artisan".

Onward to Shenzhen!

In 1991, Guo Quanhua, obsessed with engine maintenance technology, moved his family as he followed his dream to Shenzhen and moved his career with into aircraft maintenance with emphasis on the borescope. Thanks to his excellent spoken and written English and time-tested aircraft maintenance skills, Guo led a team of ten people to successfully replace the engine of Saab 340 aircraft 1993, which was the first successful case study in China.

On the Road to the Borescope

In Year 1994, the meticulous on-site operation of Guo Quanhua impressed the technical representatives of General Electric, who then issued a technical license for the borescope (inside engine inspection) to Guo Quanhua. Taking it to heart, Guo self-taught himself the key elements of borescope technology.

In Year 2009, while reviewing engine damage of a Boeing 747, it was high-pressure turbine of the engine that caused Guo's the most concern, and he issued a detailed and reasonable early warning report. Subsequently, the manufacturer of the engine conducted a borescope inspection according to the early warning report issued by Guo.

The subsequent inspection proved Guo's damage assessment correctly and the manufacturer immediately replaced the damaged engine thus avoiding possible catastrophic results caused by its continued use.



Employees

Society



Guo Quanhua's accurate judgment was commended by the local Civil Aviation Administration of China.

Guo-type Borescope Shows His Talent

In Year 2012, Guo Quanhua developed the "V2500 Engine Borescope Inspection Operating Procedure", which can regulate the operational behavior for inspection by borescope engineers, improve the detection rate of damages and saving precious time for borescope inspections which in turn can reduce equipment losses.

In Year 2016, the Operating Procedure was promoted in all units responsible for the maintenance of V2500 engine, providing a solid guarantee for the safety of aircraft flight.

Studying and devoting more than 30 years to this technical field, Guo Quanhua is a hallmark of his dedication and that of China Southern to flight safety.

Employee Development

personnel

China Southern provides a variety of career development opportunities for each staff member to help employees move along their own development path with a variety of professional options.



Theoretical and practical

part-time faculty

Pilot

China Southern pilots can gradually develop from a cadet pilot position to a co-pilot and a captain with further options advance to become an instructor.

Flight Attendants

China Southern's gracious flight attendants can gradually advance from a junior flight attendant to an economy class cabin attendant; a two-cabin attendant; a senior cabin attendant and a chief flight attendant. In addition to this professional development channel, all flight attendants can choose to become a theoretical / practical full-time / parttime instructor or inspector.

Aviation Security Personnel

advance upward from a junior security personnel to a Level 1, Level 2, Level 3, Level 4 and Level 5 Aviation Security Personnel. In addition to this professional promotion channel, aviation security personnel can choose to become a theoretical / practical full-time / part-time instructor or inspector.





Apprentice

intermedia

First level

Society

V-

expert



Chief expert

Maintenance and Engineering Personnel

technician

Technician

The position of maintenance and engineering personnel can be divided into two categories, (i.e. technical and operational duty) according to the contents, nature and requirements of the post. Staff with technical duty can gradually develop from an assistant engineer to an engineer; a senior engineer; an expert and chief expert. Personnel with operational duty can gradually develop from an apprentice to a junior mechanic; a mechanic; a technician to a senior technician.

advanced



expert

Operational Controller

Operation controllers can gradually develop from an assistant to junior; intermediate; experienced; senior and expert levels.



Management position

Ground Service Personnel

Ground service staff can gradually develop from Level 1 to Level 2, 3, 4 and 5 through examinations and competitions. Eligible staff can then assume a functional or managerial position.



Employee Care

China Southern senior managers truly care for the growth of all staff members as well as their important work/life balance. The Company actively provides assistance to the groups such as employees in hardship and female employees, and balances the work and life of staff by organizing rich and colorful activities to empower all with a feeling a affiliation, happiness and camaraderie.

Care for Female Staff

The Company has created and delivered the "Special Collective Contract for the Protection of Female Employees' Rights and Interests" which safeguards the legitimate rights and interests of female staff members while pushing forward with special needs such as a "Mother's Room" for nursing mothers and a mutual fund to provide financial assistance to female staff in need.

More than 22,908 female employees participated in the 6th Session of the Mutual Fund for Critical Illnesses for female employees in the civil aviation industry. A substantial amount of more than RMB 1.14896 million was collected in Year 2018 and RMB 1.145 million of subsidiary was granted to provide financial assistance to 78 female colleagues.

Employees Facing Hardships

The Company continues to aid financially challenged colleagues and colleagues with serious illnesses through the airline's Mutual Fund for Critical Illnesses and Migrant Worker Relief Fund to help them overcome their personal difficulties.

During Year 2018, the Mutual Fund provided RMB 1.5221 million in financial assistance to 237 colleagues, RMB 133,000 to 133 family members of staff, and RMB135,000 to 4 families of migrant workers.

Work/Life Balance

China Southern Airlines has promoted the implementation of the eighth phase of the staff quality improvement project themed "Improving Yourselves, Realizing Dreams" by providing RMB 51,000 for 51 employees applying for further education, and RMB 124.000 of education promotion subsidies to another 155 employees. The Company also provided discounts and convenience for employees in the purchase of cars and houses via the signing and the renewal of fifty group purchase agreements.

Employee Assistance Program (EAP)

The Company actively promotes the Employee Assistance Program (EAP). During Year 2018, 12 EAP training courses and retraining courses were organized, 275 psychological counseling activities in various forms were held, and five crisis incidents were treated. 1,093 hours of counseling service were provided on telephone. This program served about 19,100 employees throughout the year.

Employees' after-hour Life

China Southern Airlines organized rich and colorful cultural and sports activities to create a joyful and happy atmosphere and improve the happiness of employees.

Culture · Adding Color to Life

The Company also hosted various employee cultural activities, such as the Spring Touring Party, Folk Art and Dance Competitions, greatly enriching the lifestyle of all staff members.

Points to Health

tournaments.

Our Story: "I Love My China Southern Family!"

In 2018, Zeng Cheng (pseudonym), an employee who had just clocked in his first year at the maintenance plant of the Guangxi Branch of China Southern, was diagnosed with acute lymphoblastic leukemia.

After the New Year's Day in 2018, Zeng underwent a much needed bone marrow transplant surgery at Nanfang Hospital. After the surgery, his platelets decreased and O-type blood platelets were then urgently needed, or otherwise, there was a risk of organ failure. This placed a great emphasis on the Guangzhou Blood Center and after learning about Zeng's emergency condition, the China Southern Maintenance and Engineering Department immediately solicited a blood donation from its colleagues. Three passionate cadres - who initially met the donation criteria - were selected and moved swiftly to the Guangzhou Blood Center with only one of them meeting the donation requirements - far from satisfying the platelet needs of Zeng Cheng. To meet Zeng immediate demand for platelets, the Company issued a philanthropic proposal within the group Headquarters in Guangzhou. After the clarion call, more than 30 colleagues signed up in one afternoon, and nine were then selected for the second round of blood donations. After further professional treatment, Zeng Cheng finally passed the most dangerous period of his medical tests and continued under observation and treatment. In addition, RMB 200,000 was raised by colleagues from the China Southern for Zeng Cheng to cover his medical needs.

"

"My child is unfortunate, but he is also lucky. As a member of China Southern, he received warmth and love from this big family, which gave him strength to overcome the disease. I believe he will recovery and return home. I sincerely thank all the leaders and colleagues of China Southern. May Good people safe and sound all their life!"



Fmplovee

Society

Sports · Adding Bonus

To further motivate all staff members to enjoy a healthy lifestyle, China Southern hosted a series of sports events including balloon volleyball, basketball and "go"

Warm · Care for Employees' Family

The Company held its first session of a speech activity entitled, "Story-telling Session on Family, Family Style and Family Education" and a "Children's Day" Parent-Child Garden Party, to aid all staff in building a harmonious family relationship.



Special Flights

While completing special flights and emergency rescue missions on behalf of the Motherland, China Southern actively fulfills its responsibilities as a central SOE by meeting the needs of the country in internal affairs and diplomacy, taking part in urgent tasks including disaster relief and rescue and the transportation of relief suppliesemergency rescue, and participating in emergency rescue missions.



liaht

transported

During 2018, China Southern operated

7,984 passengers

important special charter

Our Story: Celebrating Mid-Autumn Festival with UN Peacekeeping Forces

On September 24, 2018, during the traditional Chinese Mid-Autumn Festival, China Southern welcomed a group of special passengers - the eighth batch of Chinese UN peacekeeping troops dispatched to South Sudan.

Festival.

The Chinese UN peacekeepers - at an altitude of more than 10,000 meters - sang their way through the skies while enjoying the luscious moon cakes. Many of the peacekeepers said the 2018 Mid-Autumn Festival was the one closest to the moon.





Flying with the Sun Giving Back to the Society

China Southern always adheres to the concept of common progress and sharing development achievements. We give back the society with sincere "sunshine", fully exercise our strengths to guarantee special flights, and conduct social charity activities. We embrace the world with harmonious "sunshine", build a national aviation network along the "Belt and Road" and pillars for the cultural exchanges throughout the international community, and help build a harmonious China and a harmonious world.



Employee

Society

China Southern senior managers and staff arranged lanterns and stickers to honor the Mid-Autumn Festival in the aircraft cabin and sent each officer and soldier a paperboard with their own portrait to celebrate a happy and peaceful Mid-Autumn

Truly an unforgettable moment!

ed the eigh Sudan back to Ch



Our Story: The 1,400 km Long Road

The Spring Festival is the most important festival of the Chinese nation with heartwarming moments to share with family and friends. During the peak Spring Festival travel season, the challenge of finding available airline tickets have many of wanderers' traveling that proverbial "long and winding road".

On the eve of Spring Festival 2018, China Southern and the Wuliangye Group Co., Ltd., jointly launched public-interest flights to provide warmth to travelers on their way to home. That mid-January, China Southern launched a solicitation campaign of "Most Memorable Homecoming Experience during Spring Festival" on social platforms, which looked for parent(s), wives and child(ren) who were staying in Sichuan Province, China; the husband, born in Sichuan Province and having been separated from his family for an extended time period time but working in Guangdong Province, China; and found difficulty in buying an air ticket home.

China Southern Airlines provided these eligible workers with round trip air tickets back home.

On February 9, 2018, some 150 workers boarded this heart-warming flight - many who had never before flown - and Li Kaiqiang, who has worked in Guangdong for more than a decade, one of these lucky travelers, remarking: "I couldn't buy an air ticket last year. I stood for nearly 40 hours on a train before I arrived in Chengdu. I really didn't expect to be so lucky this year that it will take me only two hours to arrive in Chengdu. I am really fortunate".



state-owned enterprise.

travel guidance most.

During Year 2018, China Southern launched the new "Warm Winter Action" to support this peak Spring Festival travel season. More than 600 China Southern volunteers participated in support activities, ranging from providing passengers with domestic and international check-in guidance to passenger consultation, remote bay guidance and even baggage handling.

During Year 2018, the "Warm Winter Action" assisted more than 2,000 passengers in their journey back home for the holidays.





Employees

Society

Charity and Philanthropy

China Southern is dedicated to supporting numerous charitable causes that contribute to a better society and help meet the Company's Corporate Social Responsibilities as a central

"Warm Winter Action" **Volunteer Service**

Every year, the Spring Festival travel season is one when every airport in the nation is strained to overflowing as travelers, eager to return home, need clear and concise

"Traveling with Children from Air to Ground"

China Southern places a premium focus on assisting groups of left-behind children who are separated from their parents throughout the year. During Year 2018, China Southern and FAW-Volkswagen joined hands to launch a new commonwealth project "Traveling with Children from Air to Ground" in 2019, providing 11 left-behind children from Guizhou Province the opportunity to reunite with their parents. China Southern offered definitive support for these children during the time while their parents were away and brought their parents who were working in far flung regions of Guangdong to Baiyun International Airport so their children could be reunite with them as soon as they landed. China Southern also organized an art-themed summer camp for the near-dozen children and their parents. China Southern also organized an art-themed summer camp for the near-dozen children and their parents.

Our Story: A Final Request

"My only wish is to see an Airbus A380 up close." - Robert Orman Robert Orman, an airplane enthusiast in the Netherlands, unfortunately suffered from cancer. At the last moment of his life, his greatest wish was to watch his favorite Airbus A380 with his wife. China Southern and Schiphol Airport worked together to deliver a special birthday present for Robert Dream to fulfill his dream.

He who loves the Airbus A380

Robert Orman is an airplane enthusiast in the Netherlands and has been keen to appreciate a wide variety of aircraft for many years. But in 2018, his cancer recurred and the cure rate was only 20%. His last wish was to take a look at the Chinese Airbus A380. Being deeply fond of him, his wife decided to fulfill him dream. Therefore, she contacted Schiphol Airport, hoping that the Schiphol Airport can help them to complete Robert's last wish by contacting China Southern, the owner of the Airbus A380.

For the dream, we dedicated to work together

After learning about the news, China Southern and Schiphol Airport decided to rule out the difficulties and realize this special wish for Robert before his birthday. Within a short week's time. China Southern and Schiphol Airport worked together to coordinate boarding time, staffing, flight cleaning, the docking of platform truck and boarding gate, and other issues.

On August 1st, Robert was brought to the tarmac by the airport staff, and he recognized the A380 at once.



"My only wish is to see an Airbus A380 up close." ——Robert Orman ,,,,, When Robert came to the ramp and learned that China Southern invited him to board the flight to experience it, he was incredibly

excited. The staff of China Southern warmly welcomed Robert, introduced him to the A380, asked him to experience the captain announcement, and prepared a souvenir for him - an aircraft model of the A380. Robert caressed the model and said with emotion, "It's been a dream come true." Life will pass, but love will be as eternal and warm as the sun. China Southern hopes that every wish will be respected and realized. We are also willing to take the initiative to reach out and embrace every wish that can be reached when people need it.



Please scan the video QR code, and link more touching moments

Exchange Between China and the World

Supporting the "Belt and Road" Initiative

The construction of the "Belt and Road" is a major strategic move for China to expand its opening up to the outside world. China Southern is actively engaged in the "Belt and Road" advocacy. Since 2015, we have continuously increased our transport capacity in the countries and regions along the "Belt and Road" and actively cooperated with the local government to promote the construction of the "Belt and Road" and enhance our international influence. In 2018, China Southern has achieved full coverage of the routes of important cities along the "Belt and Road" and has become the air-freight company with the largest number of the shipping line along the "Belt and Road".



Open international routes

China Southern opened flights from Wuhan to Rome and Wuhan to Moscow, and continued to expand its airline network with countries along the "Belt and Road". By the end of 2018, China Southern opened 172 routes to 68 cities in 38 countries, carrying more than 15 million passengers. China Southern's new Sanya-London route is the first and only route between Hainan and Europe.

Strengthen international cooperation

Through code sharing, joint venture cooperation or other areas of mutual collaboration, China Southern has established partnerships with 41 domestic and international airline companies, and added 102 international shipping points based on the extensive China Southern domestic network. The Company continuously expands its cooperation and exchanges in business, operation, technology, management, customer service and personnel training.

China Southern Airlines opened routes along the "Belt and Road"

carrying more than

D million passengers

Foreign Affairs

The Company organized, planned and participated in 14 timesensitive foreign affairs activities of major national governments along the "Belt and Road" to promote key exchange activities between China and the international community.

— Europe



Engaging the International Community

China Southern is actively engaged with the international community by conducting in-depth international cultural construction and exchange activities that meet and exceed the airline's Corporate Social Responsibility and demonstrate the passionate image of a responsible Chinese company.

A workshop on the self-guided tour of **h** Chinese tourists held at Mauritshuis by China Southern and the Dutch Museum Association

0 China Southern sponsored 2018 "Chinese Bridge" Chinese Proficiency Competition for Foreign College Students held in London, UK

Australia

Ġ

- Sydney Festival hosted by the City of ß Sydney is sponsored by China Southern for the seventh consecutive year
- 4 "An Exhilarating Musical Adventure" concert - sponsored by China Southern - held by the Confucius Institute at the University of Sydney
 - "The Travelers" cultural performance sponsored by China Southern - held in Adelaide and Sydney











Asia

7

9

Society

101

6 Malaysian Penang Bridge International Marathon sponsored by China Southern

Miss Nepal 2018 sponsored by China Southern

8 Donation to and assistance in the flood disaster happened in Kansai, Japan

A fundraising event for a public-interested heeland-toe walking race held by Malaysia Penang Handicapped Welfare Association and sponsored by China Southern

763

Supply Chain Management

Supplier Management

East China

874





The Company formulated the "Detailed Rules for the Implementation of the Confidentiality of Procurement Information and Administrative Measures for Audio and Video Materials for Bidding Monitoring" to improve the supervision and monitoring of procurement.

During Year 2018, the e-procurement platform and Sunshine Mall of China Southern were put into use. With the e-procurement platform, China Southern were put into use, with the "sunshine" procurement and supplier management to promote the transformation of decentralized procurement to centralized procurement and manages supplier warehousing, grading, evaluation and selection.

Through the "Sunshine Mall", the Company realizes the entire

B-6057 Guang zhou

Southwest China

2.6.0 CHINA KOLIMEN 空原方南區中

Employees

Service

Encouraging Responsible Suppliers

The "Supplier Code of Conduct" issued by China Southern provides guidelines to suppliers to better fulfill their social responsibilities and encourages their working in tandem with China Southern.

The Company has established a partner social responsibility assessment management system, implemented the supplier market research and inspection management system and listed supply chain responsibilities, such as responsibilities for products, labor protection and environmental protection and business integrity as the basis for cooperation which promotes the steady implementation of supply chain social responsibilities and achieve the harmonious development of enterprises and society.

Report Indi

Report Indicators Index

ESG indicators index

		Environmental	
Level	Aspect number	"Comply or explain" Provisions	Location in this report
A1: Emissions	General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste.	P54, P59-P61
	A1.1	The types of emissions and respective emissions data.	P54-P55, P59-P61
	A1.2	Greenhouse gas emissions in total (in tons) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	P54-P55
	A1.3	Total hazardous waste produced (in tons) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	P60 Density data not available
	A1.4	Total non-hazardous waste produced (in tons) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	P61 Density data not available
	A1.5	Description of measures to mitigate emissions and results achieved.	P56-P57, P59, P60-P61
	A1.6	Description of how hazardous and non-hazardous wastes are handled, reduction initiatives and results achieved.	P60-P61
A2: Use of Resources	General Disclosure	Policies on the efficient use of resources, including energy, water and other raw materials.	P54, P59-P61
	A2.1	Direct and / or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in '000s) and intensity (e.g. per unit of production volume, per facility).	P54-P55
	A2.2	Water consumption in total and intensity (e.g. per unit of production volume, per facility).	P59
	A2.3	Description of energy use efficiency initiatives and results achieved.	P54-P58
	A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency initiatives and results achieved.	P59
	A2.5	Total packaging material used for finished products (in tons) and, if applicable, with reference to per unit produced.	N/A
A3: The Environment and Natural Resources	General Disclosure	Policies on minimizing the issuer's significant impact on the environment and natural resources.	P54, P59-P62
	A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	P54, P58-P63
		Social	
Aspect	Aspect number	"Comply or explain" Provisions	Location in this report
B1: Employment	General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare.	P83, P86
	B1.1	Total workforce by gender, employment type, age group and geographical region.	P84-P85
	B1.2	Employee turnover rate by gender, age group and geographical region.	N/A
B2: Health and Safety	General Disclosure	Information on:(a) the policies; and(b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards.	P41, P49
	B2.1	Number and rate of work-related fatalities.	P50
	1		

		Social	
Aspect	Aspect number	"Comply or explain" Provisions	Location in this report
B2: Health and Safety	B2.2	Lost days due to work injury.	P50
	B2.3	escription of occupational health and safety measures adopted, how they are implemented and monitored.	P50-51
B3: Development and Training	General Disclosure	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.	N/A; P87-P88
	B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	N/A
	B3.2	The average training hours completed per employee by gender and employee category.	N/A
B4: Labor Standards	General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labor.	P83
	B4.1	Description of measures to review employment practices to avoid child and forced labor.	P83
	B4.2	Description of steps taken to eliminate such practices when discovered.	P83
B5: Supply Chain Management	General Disclosure	Policies on managing environmental and social risks of the supply chain.	P102-P103
	B5.1	Number of suppliers by geographical region.	P102
	B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, how they are implemented and monitored.	P102-P103
	General Disclosure	Information on:(a) the policies; and(b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to health and safety, advertising, labeling and privacy matters relating to products and services provided and methods of redress.	P49,P78 Label related policies are not available.
	B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	not
B6: Product Responsibility	B6.2	Number of products and services that related complaints received and how they are dealt with.	P79
	B6.3	Description of practices relating to observing and protecting intellectual property rights.	P19
	B6.4	Description of quality assurance process and recall procedures.	N/A
	B6.5	Description of consumer data protection and privacy policies, how they are implemented and monitored.	P78
B7: Anti-corruption	General Disclosure	Information on:(a) the policies; and(b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering.	P20
	B7.1	Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases.	P20
	B7.2	Description of preventive measures and whistle-blowing procedures, how they are implemented and monitored.	P20
B8: Community Investment	General Disclosure	Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests.	P31
	B8.1	Focus areas of contribution (e.g. education, environmental concerns, labor needs, health, culture, sport).	P30-P35, P63, P96-P P100-P101
	B8.2	Resources contributed (e.g. money or time) to the focus area.	P13, P95, P96-P99

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Readers' Feedback

Dear reader,

Hello! Thank you for taking time out of your busy schedule to read our report. There are inevitable flaws and omissions in compiling preparation process of the report. We are very willing to listen to your comments and suggestions on the report, to help us continue to improve the report preparation method and social responsibility performance. Thank you again for your support of our work!

What is your identity:

○ Customer ○ Investor ○ Government ○ Employee ○ Partner ○ Environmental Protection Agency ○ Community ○ Media ○ Peer ○ Others

Selective questions:

1. Your overall impression of this report:				
Excellent	Good	🗌 Fair	Poor	
2. What do you think of the quality of the information disclose				
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3. What do you think of the structure of this report:				
Excellent	Good	🗌 Fair	Poor	
4. What do you think of the layout design of this report:				
Excellent	Good	🗌 Fair	Poor	
5. What do you think of the reading experience of this report				
Excellent	Good	🗌 Fair	Poor	

Open questions:

90

1. What shortcomings do you think this report has?

2. What shortcomings do you think this report has?

3. What suggestions do you have for the social responsibility work of China Southern?







Very poor

osed in this report:

Very poor

Very poor

Very poor

Very poor





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