

Air China Limited

2022 Corporate Social Responsibility Report

April 2023

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About this Report

This report presents Air China Limited's performance in 2022. In accordance with the requirement for social responsibility stipulated by the SASAC of the State Council, we leverage our strengths in core airline operations, and continuously strengthen our social responsibility management and disclosures. It is demonstrated in the report that our commitment and actions in key areas such as implementing national strategies, ensuring safe development, addressing climate change, practicing green development, enhancing product responsibility, and focusing on employee development and community welfare. We hope you can feel our sincerity and commitment through this report, and thank for the continuous support to our reform and development.

▪ Reporting Period

This report covers the period from 1 January to 31 December in 2022. To enhance its comparability and completeness, the report also covers part of the work results of 2023.

▪ Scope of the Report

This report is primarily about Air China Limited, but also involves its branches, operating units, supporting units, and main subsidiaries such as Aircraft Maintenance and Engineering Corporation (Ameco), Shenzhen Airlines Company Limited (Shenzhen Airlines), Beijing Airlines Co., Ltd. (Beijing Airlines), Dalian Airlines Co., Ltd. (Dalian Airlines), and Air China Inner Mongolia Co., Ltd (Inner Mongolia Airlines).

▪ Basis of Preparation

This report is prepared in accordance with relevant requirements, including the *Guidelines for National Enterprises on Fulfilling Corporate Social Responsibility* released by the SASAC of the State Council, the *Guidelines No. 1 on the Application of Self-Regulation Rules for Listed Companies - Standard Operations* released by the Shanghai Stock Exchange (SSE), and the *Environmental, Social and Governance Reporting Guide* of the Stock Exchange of Hong Kong Limited (HK-ESG), with reference to the standards and requirements such as *Global Reporting Initiative Sustainability Reporting Standards* (GRI Standards) of the Global Sustainability Standards Board (GSSB), *GB/T36001 Guidance on Social Responsibility Reporting* and other guidelines for the aviation service industry.

▪ Release Cycle

This is our 15th consecutive social responsibility report, which we release annually. The Chinese version of the previous year's report is released in March each year, and the English version is released in April.

▪ Sources of Data

All the financial data referred in this report, applying to China Accounting Standards for Business Enterprises, is extracted from the audited annual reports of Air China Limited, while the other data comes from official internal documents and relevant statistics of Air China Limited.

▪ Abbreviations

In this report, "we", "the Company" or "Air China" refers to Air China Limited, while "CNAHC" refers to China National Aviation Holding Corporation Limited.

▪ Accessibility of the Report

This report is prepared in both Chinese and English, and should there be any discrepancy in meaning between the two versions, the Chinese version shall prevail. Electronic copies of this report in both Chinese and English are also available for downloading from the Company's website. If you wish to acquire a printed version or raise suggestions and/or comments on this report, please contact us at:

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Chairman's Statement

The year 2022 marks a crucial milestone in the full implementation of the 14th Five-Year Plan and the start of a new journey to build a modern socialist nation in all aspects. Throughout the previous year, we ensured the coordination of work safety and operations, as well as safety and development, while earnestly fulfilling our environmental, social, and governance responsibilities. We made stable and orderly progress in all aspects of our work, laying a solid foundation for achieving high-quality sustainable development.

Insisted on safe development and assumed responsibility for safety. Air China established the concept of safe development based on the "14th Five-Year Plan," adhering to the overall national security concept and the guiding principles of General Secretary Xi Jinping's important remarks on work safety and instructions on civil aviation safety work. We took concrete steps to effectively implement the work safety and civil aviation safety. This entailed carrying out

thorough safety inspections and investigations in order to identify and manage potential hazards. We completed the three-year special safety rectification successfully. For ensuring safe operations, we conducted an in-depth survey of the technical status of the entire fleet based on the characteristics of production and operations, continued to strengthen the prevention and control of flight operation risks, and enhanced security assessment of key routes. These efforts have improved our ability to provide safety support. We worked to improve our employees' and teams' adherence to the code of conduct, raise our front-line employees' safety and regulatory awareness, and solidify our safety efforts. During the reporting period, we completed high-quality support tasks for major events such as the 2022 Beijing Winter Olympics and the 20th CPC National Congress.

Practiced low-carbon development, and fulfilled environmental responsibilities. Air China responded proactively to the national "dual carbon" strategy of "peaking carbon emissions by 2030 and achieving carbon neutrality by 2060," making significant progress in green, circular, and low-carbon development. We developed our *Action Plan for Peaking Carbon Emissions* to address climate change by incorporating the concept of addressing climate change into corporate governance and continuously strengthening climate risk identification and management in a comprehensive and multi-dimensional manner. We optimized our green development management system, diversified our management approaches, and strengthened energy resource management in accordance with the concept of green operations. We also promoted in *Action Plan for Peaking Carbon Emissions* initiatives such as plastic and waste reduction, "Enjoying Low-Carbon Travel," a green travel service on our APP, and the transition from oil to electricity and improved environmental management capacity and efficiency.

Put people first and shouldered our responsibilities for customers and employees. Our work's ultimate goal is employee- and customer-centered. Air China enhanced its service management system, continuously optimized air travel service procedures, enhanced flight regularity, launched special service products, and steadily digitalized our service, aiming to improve passengers' travel experiences. We actively explored upstream and downstream supply chain management, deepened communication and cooperation with industry partners, and made concerted efforts to create a sustainable industry ecology. Focusing on the development of our employees, we developed a diversified training system, optimized career paths, and offered a great environment for them to hone their skills. We are dedicated to providing our staff with the highest level of care while resolving their day-to-day challenges by offering them medical support, materials, and psychological counseling. We genuinely adhere to our commitments to their welfare, growth, and long-term corporate development.

Participated in social welfare and performed community responsibility. We implemented the rural revitalization strategy to ensure stable progress in poverty alleviation and no return to poverty. Our goal is to provide unwavering support and stability in financial assistance, talent selection, and consumption assistance in general. Our efforts included assisting our support areas of Zhaoping County, Guangxi Province, and Sonit Right Banner, Inner Mongolia, in consolidating and expanding the results of poverty eradication and promoting rural revitalization in a step-by-step fashion. For 5 consecutive years, we have obtained the highest grade in the performance evaluation of poverty alleviation to the state-owned enterprises, since the assessment was launched. We were active participants in a variety of social welfare activities. For example, we provided support for the Beijing Winter Olympics and Paralympics. We selected and dispatched 197 volunteers for sports service and terminal transfer support on-site throughout the entire process, in addition to fulfilling our obligations as an official partner. We were awarded the honorary title of "Beijing Advanced Organization" during the 2022 Beijing Winter Olympics and Paralympics. These were part of our efforts to give back to society and contribute to social harmony and common prosperity.

Made significant progress in building the capacity and system of governance. To build a "professional, responsible, standardized and efficient" Board of Directors, we completed the Board of Directors' election and systematically improved its quality and decision-making by focusing on its operations, decision-making, and service guarantees. We strengthened the Board of Directors supervisory role, enhanced the Company's anti-risk capability, and strived to build a high-quality Board of Directors to help create a world-class air transport company.

The year 2023 marks the start of the implementation of the guiding principles of the 20th CPC National Congress, as well as a milestone for the implementation of the 14th Five-Year Plan. Air China will continue to be guided by Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, remain steadfast in pursuing development, focus on seeking stable progress, and fully, accurately, and comprehensively implement the new development concept. By accelerating our development into a world-class air transport enterprise, we will serve and integrate into the new development pattern, prioritizing high-quality development and making new and greater contributions to building a modern socialist country in all aspects.

Ma Chongxian
Chairman
Air China Limited

ESG Statement from Board of Directors

Air China's Board of Directors is the highest responsible and decision-making body for ESG affairs. It supervises affairs concerning ESG that may affect the Company's business or operation, shareholders, and other stakeholders by listening to reports from ESG implementation units at regular communication meetings to ensure the consistency between ESG concepts and corporate strategies. The Board is responsible for approving the identification of material issues and the Company's social responsibility reports.

In 2022, Air China further improved its ESG working mechanism, explored the establishment of an ESG management system, and promoted the continuous improvement of ESG professional governance and risk management capabilities, in accordance with the requirements of SASAC's work on improving the quality of listed companies.

The Board has established a Corporate Social Responsibility (CSR) Leadership Panel, which is responsible for formulating CSR strategy and approving plans, and guiding the promotion and implementation of CSR work. It has also established an Office of CSR Leadership Panel, which is responsible for formulating annual CSR plans, coordinating the implementation of CSR plans with the progress of work tasks.

The Board regularly evaluates the importance of ESG issues, discusses and identifies the Company's ESG risks and opportunities, and regards the management and improvement of key issues as its annual ESG work. The Board of Directors reviews and confirms the results of the sustainability assessment, takes the key issues as part of

Board of Directors reviews and confirms the results of the materiality assessment, takes the key issues as part of the formulation of the Company's overall strategy, and supervises the management and performance of these issues.

In 2022, the Board of Directors considered and adopted the ecological civilization strategy and the *Action Plan for Peaking Carbon Emissions*, and regularly reviewed the strategy, action plan and progress of the Company's Dual Carbon targets. The professional committees of the Board of Directors also continued to report to it on matters related to safety management and service optimization to ensure the continuous and stable progress in related work.

This report fully disclose the progress and outcomes of Air China's ESG work in 2022, which was reviewed and approved by the Board of Directors on March 30, 2023.

About Air China

1. Company Profile

Air China Limited was founded in 1988, formerly known as Air China International Corporation. In October 2002, Air China International Corporation integrated the air transportation resources of China Southwest Airlines and China National Aviation Company to form a new entity. On September 30, 2004, Air China Limited was founded in Beijing. The Company was then listed both in Hong Kong and London on 15 December of the same year, before listed in the domestic A-shares market on August 18, 2006.

Air China is the only flag-carrier aviation company in China, and a member of the world's largest airline alliance Star Alliance, the official aviation transportation partner of the 2008 Beijing Olympics and Paralympics and the 2022 Beijing Winter Olympics and Paralympics. Air China takes the lead among domestic airlines in passenger transportation and other related service, providing important international and domestic transportation service such as emergency flights, and charter flights for VIPs and leaders of foreign countries. In 2022, according to the assessment of the World Brand Lab, Air China boasted a brand value of RMB 213.659 billion, the highest among Chinese civil aviation companies.

Structure of Air China Limited			
Management Support Division	Business Management Units	Branches	Major Subsidiaries
Administration Office	Operation Control Centre	Southwest Branch	Aircraft Maintenance and Engineering Corporation
Strategy and Development Department	Flight Crew Department	Zhejiang Branch	Shenzhen Airlines Company Limited
Human Resources Department	Commercial Committee	Chongqing Branch	Beijing Airlines Co., Ltd.
Finance Department	Ground Service Department	Tianjin Branch	Dalian Airlines Co., Ltd.
Aviation Safety Management Department	Cabin Service Department	Shanghai Branch	Air China Inner Mongolia Co., Ltd.
Flight Technology Management Department	Training & Development Department	Hubei Branch	China National Aviation Finance Co., Ltd.
Assets Management Department	Logistics & Support Department	Guangdong Branch	China National Aviation Company Limited
Operation Standards Department	Information Management Department	Guizhou Branch	Air Macau Company Limited
Product Service Department	Air Marshall Department	Branch	Air China Development Corporation (Hong Kong) Limited
Stations Management Department	Centralized Procurement Department	Tibet Branch	Air China Import and Export Trading Co., Ltd.
Legal Department	Retiree Service Department	Wenzhou Branch	Beijing Golden Phoenix Human Resources Co., Ltd.
Audit Department	Hub Development Department		Zhejiang Air Services Co., Ltd.
Aviation Security Department	Engineering Maintenance Department		Chengdu Falcon Aircraft Engineering Service Co., Ltd.

Office of the Board			Air China Shantou Industrial Development Company
Leading Group Office of Deepening Reform			
COVID-19 Pandemic Prevention & Control Office			
Corporate Culture Department			
Leading Group Office of Maintaining Integrity and Combating Corruption			
Discipline Inspection Office			
Labour Union Office			

2. Marketing Centers

4 domestic sales centers

4 overseas regional headquarters

50 domestic offices

85 overseas offices

3. Fleet Structure

Type	Model	Number
Airbus series	A319	38
	A320/A321	308
	A330	60
	A350	23
Boeing series	B737	261
	B747	10
	B777	28
	B787	14
Comac series	ARJ21	15
Business jets		5
Total		762

4. Philosophy of Responsibility

Vision

A leading airline in the world: We want to be a company that is highly competitive in terms of safe operations, service capabilities and brand awareness.

Mission

- Putting safety at the forefront: Safety is the bedrock of our business and is our fundamental responsibility.
- Delivering 4C-based services: 4C is a recap of our service philosophy that contains four elements: Credibility, Convenience, Comfort and Choice. It is a microcosm of our responsibilities to customers.
- Steady development: Formulating leadership strategies, moving forward steadily, utilizing multi-branding synergies, achieving operational excellence and striving for healthy and sustainable development is Air China's responsibility to the stakeholders.
- Helping employees pursue a successful career: Giving our people opportunities to realize their worth and grow with our business is Air China's responsibility towards its employees.
- Fulfilling Responsibilities: We fulfill our political, economic and social responsibilities to serve the country and the society.

Values

- People orientation: Employee orientation and customer orientation is the guideline on how we deal with people.
- Assumption of responsibility: We are ready, willing and able to assume responsibilities.
- Resolve to get ahead: Innovation gives us renewed vigor; we will never rest on laurels; we will lead the pack.
- Loving to fly: We provide seamless services that are considerate and cheerful, allowing our passengers to truly experience the pleasure of flying.

Brand Positioning

- Professional and trusted: We want to be an outstanding expert in the field of air transport. We want to be a trusted leader in the industry.
- World-class standards: We want to be an airline well known and highly respected around the world.
- Chinese flair: We want to be an airline that is a showcase of Chinese culture and China's modern dynamism.

5. The 14th Five-Year Plan

One Goal	Advancing high-quality development, accelerating the construction of a world-class aviation enterprise
Four strategies	Hub network strategy Brand building strategy Cost advantage strategy Passenger and cargo flights linkage strategy
Five Capabilities	Constantly enhanced political capability Stable and steady profiting capability Large-scale production organization capability Standardized basic management capability Value-driven brand capability
Eight Key Areas	Promoting safety management and construction to a new high Gaining a new advantage in the optimization of market layout Presenting a new look in the structural adjustment of resources Reaching a new level of upgraded products and service Achieving a new breakthrough in the aviation cargo logistics development Demonstrating a new achievement in green and low-carbon development Entering a new stage of innovation-driven digital development Making new results in integrated industrial development

Major development goals during the 14th Five-Year Plan period:

Passenger carried (million person-times): 166.72

Passenger's overall satisfaction (points): 83.5

Accountable incidents rate of air transportation per 10,000 flight hours <0.11

Creating Social Value

Indicators	2020	2021	2022
ASK (million)	156,061	152,445	96,212
RPK (million)	109,830	104,626	60,355
ATK (million)	23,686	24,490	16,991
RTK (million)	13.285	13.599	8.740

Passenger carried (1,000 person-times)	68,687.1	69,045.2	38,605.8
Cargo and mail carried (1,000 tonnes)	1,113.7	1,186.7	844.1
Safe flight hours (1,000 hours)	1,553	1,590	1,031.8
Accountable incidents rate of air transportation due to the liability of Air China per 10,000 flight hours	0	0	0
Flight on time performance (%)	89.15	88.96	95.45
Passenger's overall satisfaction (points)	83.0	84.7	87.5
Number of registered aircraft (unit)	707	746	762
Total assets (RMB million)	284,071	298,415	295,011
Year-end market value (RMB million)	98,041	111,248	151,691
Fuel consumption per tonne-km (kg/tonne-km)	0.356	0.357	0.358
Total energy consumption (1,000 tonnes standard coal)	6,967	7,151	4,631

Honors and Awards

- In December, Air China won the title of "Top 500 World Brands" by the World Brand Lab in the 16th consecutive year, the only Chinese civil aviation company got this honor.
- Meanwhile, Air China was awarded the "China Brand Annual Award NO.1 (Aviation Service Industry)" and "China Annual Culture Brand Award".
- In July, the World Brand Lab released the "China's 500 Most Valuable Brands 2022", ranking Air China 24th on the list with a brand value of RMB 213.659 billion, the highest among Chinese civil aviation companies.
- In 2022, Air China was among the first batch to be selected into the list of China's Enterprises as Front Runners in Industrial Carbon Peaking, making it the only aviation company on the list.
- In April, the All-China Federation of Trade Unions (ACFTU) held a conference to honor the 2022 national advanced organizations and persons. During this event, Air China Chongqing Branch and the third team of the sixth unit of Cabin Service Department got the honor.
- In April, the Flight Crew Department and the Ground Service Department of Air China were awarded as national advanced civil aviation organizations.
- The Civil Aviation Administration of China (CAAC) awarded 10 departments of Air China, the Advanced Air Transport Groups, for supporting the 2022 Beijing Winter Olympics and Paralympics
- The Beijing Municipal Government awarded Air China and its Ground Service Department, the Advanced Group of Beijing, for supporting the 2022 Beijing Winter Olympic and Paralympics
- Air China's case was selected as one of the 30 best practices in the "List of Best ESG Practices for Listed Companies (2022)" by the China Association for Public Companies
- Air China was awarded the "2022 Best Practice Case of the Office of Board of Public Companies" by the China Association for Public Companies

- The Company was awarded Class A (i.e., Excellent Information Disclosure Category) for 2021-2022 Evaluation of Information Disclosure by Shanghai Stock Exchange.
- Air China was included into China Social Responsibility 100 Forum's "State-owned Enterprises ESG Top 50 Index" and "State-owned Enterprises ESG Governance Top 50 Index" in 2022.
- Air China achieved the highest grade in the performance evaluation of poverty alleviation for five consecutive years, since the assessment was launched.
- In November, the "Golden Phoenix Mother" volunteer assistance project of the Golden Phoenix Group of the Cabin Service Department won the Silver Award in the Sixth China Young Volunteer Service Project Competition.
- In December, the Company's case was selected as one of the excellent cases of "Rural Revitalization" in the *Blue Paper on Social Responsibility of State-owned Enterprises (2022)*.

Responses to UN 2030 Sustainable Development Goals (SDGs)

SDGs	Our Actions in 2022	Corresponding Chapter	SDGs	Our Actions in 2022	Corresponding Chapter
1 NO POVERTY	Air China's targeted support areas, Zhaoping County of Guangxi Province and Sonit Right Banner of Inner Mongolia, have both officially out of the list of national-level poverty stricken counties.	Rural Revitalization	2 ZERO HUNGER	Support the villages in agricultural infrastructure construction, improve the quality of agricultural products, and broaden their sales channels.	Rural Revitalization
3 GOOD HEALTH AND WELL-BEING	Develop occupational disease prevention and control management regulations, carry out a full range of employee occupational disease prevention and control work, and create a caring environment.	Occupational Health and Safety Incentives and Care	4 QUALITY EDUCATION	About 16 volunteers were sent to Zhaoping County to support education, providing a total of 3,310 hours of volunteer teaching.	Rural Revitalization
5 GENDER	Equal	Equal	6 CLEAN	Continuously	Use of

5 GENDER EQUALITY	Ensure that female employees have fair promotion opportunities and career development, promote the establishment of a female-friendly workplace.	Equal Employment Incentives and Care	6 CLEAN WATER AND SANITATION	Continuously improve the water resource management process and explore water-saving and environmental protection technology.	Use Resources
7 AFFORDABLE AND CLEAN ENERGY	Promote sustainable aviation fuels.	Use of Resources	8 DECENT WORK AND ECONOMIC GROWTH	Guarantee employee salary and implement special post subsidy policies, continuously improve employee performance evaluation system and implement incentive policies.	Employee Development
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	Insist on driving corporate development by technological innovation, establish a leading group for informatized and digital construction to effectively promote the construction of informatized and digital transformation.	Digital Transformation	10 REDUCED INEQUALITIES	Strictly implement the employment policy of openness, fairness, and equality, and commit to prohibiting discrimination against employees based on factors such as gender, race, nationality, physical conditions, religion, and marital status, insist on equal pay for equal work, and safeguard the legitimate rights and interests of employees.	Equal Employment
11 SUSTAINABLE CITIES AND COMMUNITIES	Encourage employees to participate in volunteer service and social welfare activities, give	Public Welfare	12 RESPONSIBLE CONSUMPTION AND PRODUCTION	Implement a comprehensive service quality management model, actively invest in industry	Product Responsibility

	back to the community with love, warmth and care.			construction, continuously improve service capabilities, and provide world-class service to passengers.	
13 CLIMATE ACTION	Proactively identify and respond to the risks brought by climate change, explore carbon reduction pathways, and improve climate governance.	Addressing Climate Change Use of Resources	14 LIFE BELOW WATER	Care for the life below waters, launch conservation projects, and contribute to local ecological protection and restoration.	Biodiversity Conservation
15 LIFE ON LAND	Develop special protection measures and conduct regular biodiversity conservation monitoring to reduce the impact of operations on the surrounding natural ecology and biodiversity.	Biodiversity Conservation	16 PEACE, JUSTICE AND STRONG INSTITUTIONS	Establish a robust corporate governance system, build a diversified Board of Directors, abide by business ethics, and deepen the construction of a culture of integrity.	Anti-corruption and Business Ethics Governance System
17 PARTNERSHIPS FOR THE GOALS	Continuously broaden the communication channels with partners, and lead the sustainable development of the industry together with outstanding peers.	Coordinated Development of the Industry			

1. Sustainable Development Management

Air China has effectively implemented the new development concept, followed the sustainable development strategic, and strengthened sustainable development management to improve governance capacity, laying a solid foundation for the sustainable development of the Company.

1.1 Corporate Governance

Air China strictly complies with laws, regulations, and regulatory requirements such as the *Company Law* and the *Securities Law of the People's Republic of China*. We have established policies for corporate governance such as the *Articles of Association*, the *Rules of Procedure of the General Meetings of Shareholders*, the *Rules of Procedure of the Board of Directors*. Our goal is to continuously improve the corporate governance system, steadily enhance corporate governance, and promote the high-quality development of the Company.



Air China has integrated the Party's leadership with the corporate governance together through the *Articles of Association*, and clarified the leading role Party Committee played in corporate governance.

The Company's management performs its duties in accordance with the laws, the *Administration Office's Rules of Procedure*, and the Board of Directors' authorization. It carries out the Board of Directors' resolutions and reports to it on a regular basis. The Administration Office meetings were held 31 times in 2022.

1.1.1 Board of Directors

The Board of Directors of Air China is the Company's main decision-making body. It is in charge of making major corporate decisions in accordance with laws and regulations, as well as the *Company's Articles of Association*, providing supervision of the management and playing the role of strategic, decision-making and risk prevention. Air China appointed 4 independent directors to its sixth Board of Directors in 2022, each with extensive experience and expertise in corporate strategy, auditing, business management, and legal affairs. This has provided strong backing for the establishment of a high-quality Board of Directors. The Board of Directors met 16 times during the year.

Directors in Air China

No.	Name	Gender	Post	Expert Background
1	Ma Chongxian	Male	Chairman Executive Director	Industry Expert
2	Wang Mingyuan	Male	Vice Chairman Executive Director President	Industry Expert
3	Feng Gang	Male	Non-executive Director	Industry Expert
4	Patrick Healy	Male	Non-executive Director	Industry Expert
5	Xiao Peng	Male	Employee Director	Engineering Expert
6	Li Fushen	Male	Independent Non-executive Director	Financial Expert
7	He Yun	Male	Independent Non-executive Director	Audit and Risk Management Expert
8	Xu Junxin	Male	Independent Non-executive Director	Business Management Expert
9	Winnie Tam Wan-chi	Female	Independent Non-executive Director	Legal Expert

Performance of Directors

PERFORMANCE OF DIRECTORS

Trainings and researches are critical measures for the Board of Directors to continuously strengthen the ability to perform the duties and the sense of self-discipline, furthermore the corporate governance capabilities.

In 2022, 3 independent directors attended 3 communication meetings with SASAC to stay up with requirements of the regulatory policies and the Director's duties.

4 independent directors attended the Shanghai Stock Exchange's 80th Qualification Training for Independent Directors and received qualification certifications.

Case: Independent directors visited the Operation Control Center

In 2022, our independent directors conducted 3 surveys at the front line of 9 departments, including the Commercial Committee, the Operation Control Centre, Southwest Sales Center, and East China Sales Center. They gained a comprehensive understanding of the Company through in-depth research and enhanced their interactions with the management. Their surveys provided the Board of Directors the reference for science-based and efficient decision-making.

Professional Committees of the Board of Directors

Air China has established 4 professional committees under the Board of Directors. These committees are in charge of informing the Board of Directors about the research and consideration of relevant proposals and providing with the opinions and recommendations of independent directors before the Board votes. In 2022, the Board of Directors' professional committees held 29 meetings and received 17 special reports.

Committees	Main Responsibilities	Coordinated Departments	
Audit and Risk Control Committee (Supervision Committee)	<ol style="list-style-type: none">1. Supervise and evaluate the external audit work, and propose to hire or replace the external auditors.2. Supervise and evaluate the internal audit work, and be responsible for the communication and coordination of internal and external audits of the Company.3. Review the financial information of the Company and its disclosure.4. Supervise, verify and evaluate the internal control and risk management.5. Receive the Company's reports on fraudulent behavior, whistle-blowing, etc.	Human Resources Department Corporate Culture Department	Held 9 meetings and listened to 2 special reports in 2022.
Nomination and Remuneration Committee	<ol style="list-style-type: none">1. Study the selection criteria and procedures for the Company's director candidates and senior management, and make recommendations to the Company's Board of Directors.2. Conduct extensive search for the selection of qualified candidates for directors and senior management of the Company.3. Review and make recommendations on the selection of candidates for directors and senior management of the Company.4. Study the evaluation criteria for directors and senior management of the Company, make assessment and recommendations.5. Study and review the remuneration policies and programs for the directors and senior management of the Company.	Legal Department Finance Department Audit Department	Held 10 meetings and listened to 11 special reports in 2022.
Strategy and Investment Committee	<ol style="list-style-type: none">1. Study the Company's long-term development strategic plans, major investment and financing proposals, and major operation decisions.	Strategy & Development Department	Held 7 meetings and listened to 2 special reports in 2022.

	<ol style="list-style-type: none"> 2. Formulate the Company's environmental, social and governance structure, objectives, management policies and strategies. 3. Decide on the establishment, merger and disbanding of the Company's branches. 	<p>Finance Department</p> <p>Leading Group Office of Deepening Reform</p>	
Aviation Safety Committee	<ol style="list-style-type: none"> 1. Regularly receive the analysis of the Company's safety situation and report to the Board of Directors. 2. Study and deal with major issues in the safety work of the Company. 3. Supervise and guide the Company's production and the allocation of human, financial and material resources to meet the needs of the Company's safety operations. 	<p>Aviation Safety Management Department</p> <p>Engineering Maintenance Department</p> <p>Operation Control Centre</p>	Held 3 meetings and listened to 2 special reports in 2022.

1.1.2 General Meetings of Shareholders

The General Meetings of Shareholders are Air China's highest authority. The Company holds General Meetings of Shareholders in strict accordance with applicable laws and regulations, *the Articles of Association*, and other relevant provisions to ensure that all shareholders have equal status and can exercise their rights and interests, such as voting rights and the right to information.

In 2022, the Company held 4 General Meetings of Shareholders, 1 annual and 3 temporaries, at which 23 proposals were considered and approved.

1.1.3 Board of Supervisors

The Supervisory Board of Air China has faithfully performed its supervisory function over the Board of Directors, its members, and senior management, and has worked to protect the Company's and its shareholders' legitimate rights and interests in accordance with the *Company Law of the People's Republic of China*, *the Articles of Association*, and other relevant regulations.

At the end of 2022, the Company's Supervisory Board consisted of 5 supervisors, 2 of whom were representative employee supervisors, and held 8 meetings of the Supervisory Board during the year.

1.2 Social Responsibility Management

Air China continues to improve its social responsibility governance system, integrate social responsibility governance into the Company's overall governance and operations, construct a governance structure, identify critical issues, strengthen communication with stakeholders, and implement social responsibility-related work to promote the Company's sustainable development.

1.2.1 Social Responsibility Management Framework

Social responsibility management framework	
Board of Directors	
CSR Leadership Panel	The chairman and the vice chairman are the Panel Heads. Responsible for formulating CSR strategies and approving CSR plans, and guiding the promotion and implementation of CSR work
Office of CSR Leadership Panel	Responsible for formulating annual CSR plans, and organizing and coordinating the implementation of CSR plans and other tasks.
	Operation Control Centre
	Commercial Committee
	Administration Office

Members of CSR Leadership Panel Office	Strategy & Development Department
	Human Resources Department
	Finance Department
	Aviation Safety Management Department
	Product Service Department
	Legal Department
	Corporate Culture Department
	Office of the Board
	Labour Union Office

1.2.2 Stakeholder Communication

Air China continues to listen voices of regulators, shareholders, passengers, employees, partners, and other stakeholders, and expands and optimizes communication channels so that it can communicate and exchange ideas with all of its stakeholders in a positive and open manner. We identify critical issues and actively respond to the needs of all stakeholders by comprehensively summarizing the Company's characteristics and changes in the external environment.

- **Information disclosure:** In 2022, the Company completed the preparation and disclosure of three versions (i.e., for Shanghai, Hong Kong, and Japan, respectively) of periodic reports and interim announcements, and shareholders' circulars with high quality in accordance with the listing rules. We disclosed 66 interim domestic announcements, 67 interim overseas announcements, and 2 circulars.
- **Investor Relations:** In 2022, we organized and participated in more than 80 investment conferences and research calls. We engaged in online communication at the 2021 annual report conference, and 2022 Q1 and mid-year earnings conferences. We held online briefing sessions on FY2021 and Q3 2022 results via the SSE Roadshow Center platform. We actively responded to investors' concerns through platforms such as SSE E-interactive and the investor relations page on our official website.

Stakeholders	Communication channels	Expectations and appeals	Response from Air China
Government/Domestic and overseas regulatory authorities	Work meetings and briefings Information disclosure Cooperation with governments Release of blue books	Integrity, compliance and orderly operations Support for important and major events Zero accident relating to safety operations Good corporate image	Participating in the planning, research and formulation of policies and reports on special topics Following regulatory requirements Monitoring and evaluation Participating in special training
Investors/Shareholders	Information disclosure Shareholders' meetings Investors' meetings Official website of the Company Shanghai Stock Exchange and other platforms	Realizing standardized corporate governance Protection of investors'/shareholders' interests Sustainable development ability	Improving corporate governance and internal control system Working on investor relations Strengthening the core competitiveness Regular result announcements
Customers	Customer satisfaction surveys Complaint handling New media	Flight safety and on-time performance Provision of all-round and high-quality service	Establishing branded lounges Promoting certification of food safety management systems Strengthening cabin safety control Provision of intelligent service Improving release mechanism for information on irregular flights Protecting passenger information
Employees	Employee satisfaction surveys	Protection of rights and interests	Building a multi-level developing channel and learning path for

	Internal BBS, magazines, emails, and WeChat Employee representatives' meetings Activities of the trade union Establishment of teams	Focus on the Company's development strategy Participation in the Company's management and operation Smooth career development pathways Compensation and benefits	talents Facilitating the work of Staff Service Centre Providing health checkups, psychological counseling, etc. Model workers' studios Cultural and sports activities Skill contests Helping employees in difficulty
Partners/Suppliers	Daily business interactions Partners' meetings	Honesty and integrity in business operation Transparency in procurement Mutual development	Strengthening communication and cooperation Strengthening supplier management Revising and improving procurement policy Strengthening suppliers' capability and awareness of environmental protection
Peers	Industry forums Industry conferences	Attention to industry development and trends Maintenance of a fair and orderly market	Strengthening alliance cooperation Conducting industry discussions Carrying out industrial cooperation
Community	Public welfare and charity activities Volunteer service	Promoting economic growth of the communities Supporting public welfare events	Promoting rural revitalization Engaging in public welfare and charity activities Completing important transportation tasks
Media	Press releases Media calls and visits Official new media platforms	Responding to important events of the Company Public image and influence Future planning	Publication of CSR reports and regular performance reports Timely update of new developments via Weibo, WeChat and Douyin Open day

1.2.3 Disclosure Principles

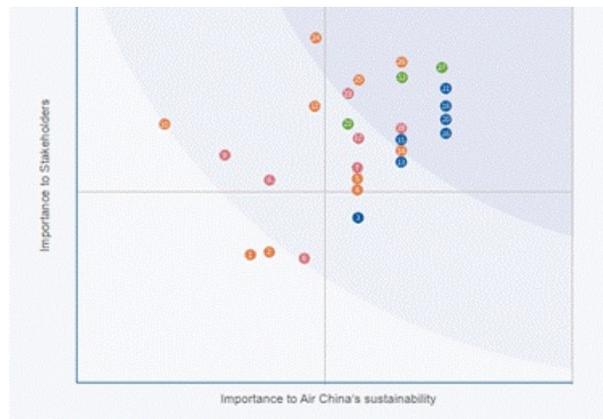
Materiality: Following national conditions and policies and in accordance with the relevant regulatory requirements, such as the *ESG Reporting Guide* released by the Stock Exchange of Hong Kong and *Guidelines No. 1 on the Application of Self-Regulation Rules for Listed Companies - Standard Operations* released by the SSE, Air China has identified material CSR issues that are consistent with its industry and business features. Then, reviewing through benchmarking with peer companies and stakeholder communications, we establish the list of material CSR issues with our characteristics.

Air China conducts surveys of internal and external stakeholders to better understand their recommendations and viewpoints on the Company's development in two dimensions: "Importance to the sustainable development for Air China" and "Importance to stakeholders." This improves the responsiveness of social responsibility reports. In the end, we decided on 27 substantive topics and responded to high materiality topics in the report.

To ensure the accuracy and comprehensiveness of Air China's social responsibility materiality matrix, we evaluated and optimized the matrix for 2021 in light of changes in peer topics and trends in capital market topics. In 2022, Air China responded to the state and regulatory authorities' call to actively deploy pollution prevention and control efforts, incorporate relevant efforts into the Company's key tasks, and elevate the topic's already existing importance among 2022 major CSR issues.

Quantitativeness: Air China has created a set of standardized ESG indicator management tools that cover the Company's management support division, business management units, branches, and major subsidiaries. Air China collects key indicators of quantitative disclosure in all environmental and social categories [in accordance with](#) the social responsibility report guidelines on a regular basis, and summarizes them at the end of each year and discloses. The calculation method and details of the reference standards of the quantitative data in this report's environmental categories can be found in the report's chapters.

Consistency: This report makes no significant changes to the scope of disclosure compared to previous years' social responsibility reports, and it employs consistent statistical disclosure methods.



Medium materiality	High materiality
1 Integrating into the local community	12 Prevention and control of pollution
2 Service for special passengers	13 Internationalized development
3 ESG governance	14 Improvement of customer experience
4 Supporting special flight missions	15 Innovation of products and service
5 On-time performance	16 Internal risk control
6 Diversity and equality	17 Occupational health and safety
7 Communication with employees	18 Sustainable value chain
8 Care policies for employees	19 Employee training and development
9 Work conditions and social security	20 Integrity management
10 Contributions to industry development	21 Lawful operation and compliance
11 Protection of customer privacy	22 Sustainable use of resources
	23 Protection of employees' rights and interests
	24 Rural revitalization
	25 Passenger health and safety
	26 Flight safety
	27 Energy conservation and emission reduction

1.3 Guidance of Party Building

The year 2022 marks a crucial milestone in the full implementation of the 14th Five-Year Plan and the start of a new journey to build a modern socialist nation in all aspects. Air China, guided by the Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, focused on learning and implementing the guiding principles of the 20th CPC National Congress to coordinate the key tasks throughout the year, leading high-quality development with high-quality Party building.

Continuously strengthening Party building

Firmly strengthen political construction.
Adhere to theoretical learning.
Optimize grassroots Party building work.
Give full play to exemplary role.
Adhere to rigorousness governance.
Give full play to the unity of various groups and organizations.

Case: Further studying and implementing the guiding principles of the 20th CPC National Congress

Air China has recognized the study and implementation of the guiding principles of the 20th CPC National Congress as its primary political task. The Company Party Committee has strengthened organizational leadership, leading Party organizations at all levels and the Party members to study and practically implement the guiding principles study results into the specific actions of building a world-class air transportation enterprise.

1.4 Comprehensive Risk Management

Air China fully implements and improves its risk management system, as well as its internal control management and corporate compliance efforts. We aim to continuously improve our risk control capabilities to support healthy corporate development.

1.4.1 Risk Management

A solid risk management system is the foundation for sustainable development. The Company has established a risk control compliance framework under the overall responsibility of the Board of Directors. The Company Party Committee is in charge of the pre-research; the management is in charge of organizing the construction and implementation efforts; and the Board of Supervisors is in charge of superintend risk control and compliance performance. The goal is to identify and analyze financial and non-financial risks in operations, with the goal of eventually forming an effective risk prevention and control mechanism. We establish the Rule of Law Leading Group, which coordinates risk, internal control, compliance, and legal affairs development, and implements the "overall management and division of responsibilities" policy, constructing three lines of defense for internal risk control.

"Three Lines of Defence" for Comprehensive Risk Management				
Discipline Inspection and Comprehensive Supervision	Board of Directors/Audit and Risk Control Committee (Supervision Committee)			Discipline Inspection and Comprehensive Supervision
	Senior Management/Air China Legal Matters Leading Group			
	First Line of Defence Business Activity Internal Control Processes Risk Assessment Control Measures	Second Line of Defence Financial Control Safety Supervision Quality Control Legal Management Risk Management Compliance Management Internal Control Management	Third Line of Defence Internal Audit	
Business Departments As the main responsible departments of corporate risks, business departments are responsible for the effective identification and control of risks, and bear the main responsibility for risks during business and operation processes.	Support Departments Support departments like Legal, Compliance, Financial, Quality, Safety, and Human Resources serve as the second line of defence to provide risk management and control policies, methodologies and tools, and to organize risk monitoring and internal control compliance management.	Assurance Departments As the third line of defence, Internal Audit Department conducts independent assessment of Air China's risk management and control results, and performs risk assessment and supervision responsibilities.		

Risk Identification

In order to identify risk categories, we determined risk rating criteria by the risk matrix method and rated risks by assessing the likelihood and impacts, and developed systems such as the *Risk Framework*, the *Risk Level Standards* and the *Risk Event Reporting System* to evaluate factors like financial losses, dispute cases, operations, and safety. Meanwhile, we defined risk events and clarified the basic elements, timeframe, and path of reporting.

9 primary risks
100 secondary risks
5 risk levels

9 Primary Risks	
Strategic Risk	Investment Risk
Safety Risk	Financial Risk
Market Risk	Business Risk
Public Opinion Risk	Legal Risk
Integrity Risk	

Risk Prevention and Control Mechanism

- Ensure a solid risk research and judgment mechanism: When conducting qualitative risk factor analysis, we concentrate on 38 key risk indicators and new risks evaluating. We put a monthly risk reporting mechanism

in place to continuously monitor and strictly check the risks.

- Extend the risk assessment mechanism for decision-making: We strengthen risk decision-making and governance, including comprehensive risk management in the list of authority and responsibility for major issues at the Company Party Committee, Board of Directors, and management levels. We also assess risks as often as required by the "Four Important Matters " policy (i.e., important decisions, important projects and arrangements, important nominations, and use of large sums of funds).
- Develop a robust risk prevention and control coordination mechanism: We are constantly bringing the four-in-one collaboration of "legal affairs, risks, internal control, and compliance" into play. We improve the quarterly risk control coordination meeting system, at which we inform typical incidents, study and evaluate risk changes, and improve information communication. We share risk control information with the discipline inspection and audit departments in order to establish the third line of defense for risk prevention and management improvement.
- Comprehensively consolidate the risk prevention and control responsibility mechanism: We concentrate on the layered risk management, clarifying that specific posts or individual employees are in charge of risk management.

1.4.2 Internal Control Management

- In 2022, the Company promoted the development of internal control processes in all aspects by "specifying the internal control system into specific processes," gradually integrated its major business into the three lines of defense for management, and completed a total of 1,033 internal control processes throughout the year.
- We completed the revision of internal control management regulations to improve the feasibility, effectiveness, and relevance of the system, according to the requirements of state-owned asset supervision and the securities market.
- We conducted comprehensive self-inspection and mutual inspection to strengthen the investigation and review of internal control , rules and regulations, information systems, and other aspects to understand our internal control management better.
- We advocated for the implementation of the Board of Directors' responsibility for risk prevention in 10 subsidiaries, in order to create a mechanism for the Board of subsidiaries to consider risk control work and operate effectively.

1.4.3 Internal Audit

Guided by the risk-oriented management, with the goal of ensuring execution and promoting development, Air China continues to deepen internal audit, strengthen rectification and accountability efforts, optimize our organization and system structures , make internal audits fully playing a role in the corporate strategy, corporate governance and risk management, contributing to a high-quality corporate development.

Actively promote comprehensive internal audit supervision with full coverage	<ul style="list-style-type: none"> • Following the principle of "auditing everything that should be", our audit departments at all levels conducted 82 audit projects and found 585 problems. In accordance with the <i>Guidelines No. 1 on the Application of Self-Regulation Rules for Listed Companies-Standard Operations</i> released by the SSE, we inspected the situation of raised funds, the guarantees, and related party transaction half-yearly.
Clarify responsibilities for rectification, ensure effective implementation of the audit rectification	<ul style="list-style-type: none"> • We introduced the <i>Management Measures for Audit and Rectification Tracking</i> in 2022, to further improve the long-term mechanism of audit rectification. • We summarized the problems found in internal and external audits, and carried out the "learning by cases" activity across the Company to transform the audit results into effective management. • We included audit rectification results into the performance assessment indicators of each entity, dynamically monitored the progress of rectification, strictly controlled the assessment time limits, and improved rectification efficiency.
Boost the investigation and punishment of non-compliant matters	<ul style="list-style-type: none"> • We implemented the requirements of SASAC on the accountability work of comprehensive governance and the rectification work of illegal overseas investment, conducted full-coverage investigation to identify problems, supervised the whole-process accountability and rectification, sorted out the management loopholes in the whole chain, and coordinated the work of accountability.
Strengthen the construction of the standard system	<ul style="list-style-type: none"> • In 2022, the Company's audit departments at all levels formulated and revised a total of 26 internal audit policies and comprehensively improved the three-level system of internal audit.

1.4.4 Corporate Compliance

Air China adheres to the principle of legal and compliance operations at all times. We strictly follow the Measures of the Compliance Management and other applicable laws and regulations, improve corporate compliance management system,

and form a closed loop of compliance management.

Compliance System Construction

To improve the capabilities of legal and compliance management, Air China has built a "2+N" compliance management system based on the *Compliance Management Regulations* and the *Compliance Code of Conduct*, and supported by the *Management Measures for Overseas Compliance*, the *Overseas Compliance Training Manual (Chinese and English versions)* and special manuals for key areas in each jurisdiction.

Compliance Culture Construction

Air China focuses on building a culture of compliance, and conducts the "Compliance Awareness Month" activity in May each year to stimulate employees' compliance initiatives through various forms of compliance trainings.

Highlights of Compliance Activities in 2022

<ul style="list-style-type: none">• Designated the year 2022 as the "Year of Compliance Management Enhancement" and promoted various tasks related to compliance management.
<ul style="list-style-type: none">• Issued the <i>Compliance Manual for Data in Various Jurisdictions (2022 Edition)</i> and the <i>Anti-commercial Bribery Compliance Manual (2022 Edition)</i>.
<ul style="list-style-type: none">• Investigated compliance risks and illegal and non-compliant issues in operations.
<ul style="list-style-type: none">• Carried out activities in the "Compliance Awareness Month" and made efforts to build a compliance culture promotion platform.
<ul style="list-style-type: none">• Tracked domestic and overseas compliance developments in real-time to enhance our sensitivity for compliance and reserve the compliance information.

1.5 Anti-corruption and Business Ethics

Air China strictly adheres to anti-corruption laws and regulations and has developed 13 rules and regulations to instill the business philosophy of integrity and honesty in all of its employees. Air China was not involved in any corruption, bribery, fraud and money laundering litigation cases in 2022. Meanwhile, Air China strictly adheres to laws and regulations such as the *Anti-monopoly Law* and the *Anti-Unfair Competition Law of the People's Republic of China*, and codes of business conduct. We compete in the market in accordance with the law and prohibit any form of commercial bribery, money laundering, monopoly, or unfair competition. The Company has set out clear requirements on ethical standards for employees such as legal compliance, fair competition, professional conduct in the *Employee Code of Conduct* and requires all employees to sign it.

Supervisory Reporting Channels of the Audit Committee

The Company posts a email address on its official website for employees, customers, suppliers and relevant stakeholders to report to the Audit and Risk Management Committee (Supervision Committee) of the Board on the Company's improper matters, so that the Board of Directors could carry out its supervisory role according to the regulatory requirements of the Stock Exchange of Hong Kong.

"Massive Supervision" pattern

Coordinate all kinds of supervision resources within the Company, strengthen regular supervision in areas prone to corruption, and form a unified and coordinated anti-corruption pattern with clarified responsibilities.

Work mechanism of maintaining integrity and combating corruption

Improve the efficiency and effectiveness of handling major corruption cases and important clues of anti-corruption work.

Anti-corruption Monitoring Activities

<ul style="list-style-type: none">▪ Implemented strict investigations, strengthened whole-process management of problems and clues, addressed corruption problems and clues in a timely manner, increased case review and investigation efforts in key areas such as passenger and cargo marketing, bidding and procurement, and equipment maintenance.
<ul style="list-style-type: none">▪ Strengthened the special supervision of integrity risk prevention and control, conducted special supervision and inspection on bidding and procurement, and the implementation of integrity risk prevention and control in various departments.
<ul style="list-style-type: none">▪ Continuously regulated business transactions with enterprises run by relatives of the Company's leadership, issued the <i>List of Enterprises Prohibited from Transactions (2022)</i>, added prohibited enterprises into the procurement management platform, and strictly prohibited business transactions with unqualified enterprises.

Public Complaint Work

Air China has issued the *Implementation Rules for the Handling of Letters and Visits (for Trial Implementation)*,

ensuring that people could report relevant issues via letters, phone calls, on-line channels, and visits. We strengthened protection to the whistle-blowers, ensuring that those cases are dealt in accordance with the law while the whistle-blowers' privacy and interests effectively protected.

Whistleblower Protection Initiatives

The name of the whistle-blower, address, the content of the public compliant and other relevant information must be strictly kept confidential.
It is strictly prohibited to inform the public compliant materials and the whistle-blower information to the reported organization or personnel.
Public compliant receipt or verification efforts should be carried out without revealing the identity of the whistle-blower.
The whistle-blowers' personal information should obtain the consent before publicizing.

Anti-corruption Training and Activities

Air China launched a comprehensive anti-corruption promotion and education campaign in 2022. The Company also conducted numerous integrity training programs for staff members at different levels and in different positions, including anti-corruption training for those in high-risk and important roles.

<ul style="list-style-type: none"> ▪ Held a warning education conference on the clean administration, issued a circular on typical cases of violations against laws and rules, printed materials on the analysis of typical cases, and purchased and distributed for each entity to provide cautionary lessons in integrity education.
<ul style="list-style-type: none"> ▪ Published materials on the interpretation of anti-corruption related rules and laws on our WeChat Official Account "Clean Air China", and provided training courses on discipline and laws during basic training courses for young employees.
<ul style="list-style-type: none"> ▪ Established an integrity education system, clarify 6 kinds of courses of integrity education, 8 types of the education, and related organizational guarantee mechanisms.
<ul style="list-style-type: none"> ▪ Carried out the Promotion and Education Month Activities of clean administration, organized 2,015 warning education sessions and 1,335 lectures on disciplines and laws, held 1,202 activities in the category of building a culture of integrity, and provided 1,804 special training sessions for young cadres, integrity talks, and discipline and law tests.

2.

2. Safety Development

According to the "14th Five-Year Plan", Air China focuses on the general requirement of "Safety Development," firmly establishes a people-centered mindset, fulfills the Company's special mission as a flag-carrier aviation company, and coordinates the work among safety management, safety operations, and safety culture. We consolidate the foundation of safety development, steadfastly guard the bottom line of aviation transport safety, and ensure the absolute safety of both aviation operations and people's lives.

The "14th Five-Year Plan" in the Safety Field

<ul style="list-style-type: none"> ● Continue to improve the flight training system ● Optimize the aircraft maintenance system ● Strengthen conduct construction for crew members and vocational skills training ● Implement the three-year action plan for special safety rectification ● Improve the safety operation management system ● Deepen the construction of safety management system

2.1 Safety Management

Air China focuses on both special and regular work safety and strictly abides by the laws and regulations such as the *Work Safety Law of the People's Republic of China*, the *Civil Aviation Law of the People's Republic of China*, and the *Interim Provisions on the Supervision and Management of Work Safety at State-owned Enterprises*. We dynamically analyze the industry's safety situation and the Company's actual operational characteristics, improve the safety operation management system, perform our safety supervision duties, and boost our capabilities to prevent safety risks and identify hidden hazards.

Safety Committee Structure

The Company has established a system of work safety responsibility for all employees, and assigned safety targets to each entity based on the functional division of labor. We have consistently improved the safety discussion system by hosting meetings such as quarterly special meetings, monthly work safety evaluation meetings, and weekly Company leadership meetings. We conduct timely studies of important safety tasks and key issues at these meetings, and implement the meeting-supervised work mechanism to supervise the work progress.

Safety Management System

The Company has established a safety management system based on the *Regulations on Operation Qualification of Large Aircraft Public Air Transport Carriers* (CCAR-121) and the *Provisions on the Administration of Civil Aviation Safety* (CCAR-398), which consist of a safety operation system and a safety supervision system. The Company is regularly audited by the IATA Operational Safety Audit (IOSA). In 2022, the IOSA findings were all closed on schedule and the Company's IOSA qualification was successfully extended.

Safety Operation System Construction

Safety Management System	<ol style="list-style-type: none"> 1. Promoted the establishment of three-level risk source database for cabin, ground service, and freight, and optimized the Company's three-level risk control mechanism. Issued the <i>Guidelines on the Implementation of the Company's Three-level Risk Control Mechanism in Various Business Areas</i>. 2. Closely focused on the industry and the Company's safety operation situation, promptly identified the risks and hazards affecting safety operations, put forward targeted prevention requirements, and followed up on their implementation. 3. Put into use the QAR Big Data(QBD), a flight data management and application system, which is composed of six major functions and 166 functional points for improving safety management efficiency.
Flight training system	<ol style="list-style-type: none"> 1. Continued to optimize the <i>Flight Inspector Workbook</i>, clarified the inspection subjects and quality requirements for the flight inspector, and established quantitative assessment principles tied to flight personnel promotions. 2. Revised the <i>Flight Instructor's Manual</i> and updated the <i>Flight Inspector Workbook</i> to ensure the integration of teaching and inspection. 3. Introduced the evaluation principles of flight technical inspection standards in the technical inspection module of the flight crew qualification system to ensure that the digital evaluation program runs through the pilot's total lifecycle management.
Aircraft maintenance system	<ol style="list-style-type: none"> 1. Completed the construction of the Maintenance Planning Center (MPC) control capability evaluation mechanism. 2. Completed the migration of the data from the Aircraft Communication Addressing and Reporting System (ACARS) and the aircraft flight monitoring data of B737NG and A320 from Quick Access Recorder (QAR). 3. Established and continuously improved CCAR-121, CCAR-145 and CCAR-21 manuals and standard processes, and promoted the integration of quality system documents across all areas of the Company. <p>Ameco's maintenance certificates</p> <p>"All-in-one" maintenance license issued by CAAC.</p> <p>"Two-in-one" maintenance license issued by FAA.</p> <p>"Two-in-one" maintenance license issued by EASA.</p>
Operation management system	<ol style="list-style-type: none"> 1. Developed the <i>Implementation Measures for Unit Backups at Bases</i> to clarify the operation management responsibilities and information transfer process. 2. Developed the <i>Emergency Response Management Procedures for Safety Emergencies (for Trial Implementation)</i> according to the <i>Emergency Response Manual</i> to clarify the emergency response responsibilities of each entity and standardize all processes . 3. Upgraded the dispatch and release module of the System Operations Center (SOC), and used it for simulation exercises.

Safety Supervision System

The Company's safety supervision system, which is independent from the safety operation systems, performs safety supervision and management duties. The system is made up of the Aviation Safety Management Department and other safety management departments of various production units, specifically responsible for developing aviation safety policies, standards, running the safety management system effectively by safety inspection and risk management, and supervising and guiding the safety management work of the Company and its subsidiaries.

Safety Management Priorities

- Promoted the development of the safety operation system tenaciously, enhanced the emergency response capability of the Company, carried out the year's work of major risk prevention and safety improvement, and implemented the safety assessment report requirements of the Civil Aviation Administration of China (CAAC).
- Refined and implemented the 15 measures formulated by the Work Safety Committee of the State Council, and made efforts in areas, such as the three-year in-depth special rectification work of safety, safety inspections, and management of safety hazards as well as airplane weight and balance.

- Increased efforts to improve the code of conduct and education, optimized the quantitative assessment mechanism of the safety code of conduct, organized work safety lectures, and proactively conducted the selection of outstanding teams and individuals of the civil aviation.
- Strengthened safety process control, conducted investigations into unsafe events and special safety inspections timely, continuously improved safety operation quality, and conducted targeted safety supervision.

Safety Operation Performance

In 2022, the Company successfully completed a series of important transportation tasks of the Spring Festival, Lianghui, the evacuation of nations, and China International Import Expo. We also achieved "zero error" in safety and "zero complaint" in its transport service for the 2022 Beijing Winter Olympics and the Winter Paralympics. For ensuring the departure peak of the Winter Olympics, we transferred all domestic inbound and outbound flights from Beijing Capital International Airport Terminal 3 to Terminal 2 efficiently and safely.

In 2022, Air China had total safe flight hours of **1.0318 million** hours
Accountable incidents rate of air transportation due to the liability of Air China per **10,000** flight hours was **0**

Air China successfully achieved the goal of flight safety throughout the year of 2022. On December 31, the Chairman Ma Chongxian, the Vice President Chen Zhiyong and Ni Jiliang welcomed the returning flight crew and cabin crew at the Beijing Capital International Airport.

In-flight Food Safety

We continuously promoted the certification of ISO 9001 quality management system, FSSC 22000 and HACCP food safety management system, to improve our food safety control capabilities and effectively ensure the food safety of in-flight meals.

Cabin Safety

- Strengthened cabin safety management, refined turbulence prevention and control plans according to the weather conditions along the flight route, and strictly prevented the occurrence of injuries caused by turbulence in the air.
- Strengthened cabin inspections, responded to passengers' needs in a timely manner, and provided the best possible medical assistance to sick passengers.
- Complied with the rules and regulations strictly, improved the ability to handle special situations such as smoke from lithium batteries on board, ensuring the safety of cabin operations.

2.2 Safety Culture

The establishment of a safety culture is the foundation for solid safety operations. Air China implemented the *Regulations on the Professional Code of Conduct for Crew Members* released by the CAAC, revised the *Aviation Safety Management Training Syllabus*, and carried out various safety culture construction activities according to the safety management and education plans.

Honors

- In April, the Flight Crew Department of Air China were awarded as National Advanced Civil aviation Organization.
- **Excellent Teams of Safety Conduct recognized by CAAC:** The Aircraft Load Capacity Management Team of the Operation Control Centre, the "Uniting as One" Team of Flight Crew Department, and the Endeavour Team of AMECO Chengdu Branch.
- **Advanced Individuals with Safety Conduct recognized by CAAC:** Le Bingqing of Cabin Service Department of Southwest Branch, Bai Bing of Flight Crew Squadron of Guangdong Branch, and Huang He of Equipment Maintenance Center of Ground Service Department.

Safety Culture Establishment

Air China thinks highly of the establishment of a safety culture, and always follows the guiding principles of General Secretary Xi Jinping's important remarks on work safety and civil aviation safety. We adhere to the policy of "safety first, prevention foremost", strictly implement the work safety responsibility system for all employees, and fully implement the long-term mechanism of code of conduct improvement, build the safety culture system at Air China, creating a safe working atmosphere.

Implementing the General Secretary's important guiding principles

- The Company strengthened propaganda work of the new *Work Safety Law of the People's Republic of China*, made lecture materials, provided training for all employees, and implemented the concept of safety development into all aspects of strategic planning and production operations.
- Conducted special studies on "Putting People and Their Lives First", and studied thematic film of related topics.
- The Company carried out systematic study of General Secretary Xi's important remarks on work safety to ensure full coverage.

Solid promotion and education of safety practitioners' code of conduct

- Formulated the annual work plan for safety practitioners' code of conduct.
- Conducted group-wide selection of outstanding teams and individuals of safety conduct, and 3 outstanding teams as well as 3 advanced individuals were awarded by the CAAC.
- Implemented *Regulations on the Professional Code of Conduct for Crew Members* released by the CAAC, revised the code of conduct improvement content in the safety management system (SMS) manuals, procedures and standards, incorporated code of conduct improvement into safety management process assessment, and increased quantitative assessment.
- Updated aviation code of conduct improvement training courseware and cases of typical violations, revised the *Aviation Safety Management Training Syllabus*, thoroughly investigated the hidden hazards of code of conduct, and highlighted the rectification of human-caused unsafe incidents.

Taking effective measures to organize work safety month activities

- Focused on the theme of "Compliance with the Work Safety Law and Being the First Responsible Person", developed an overall activity plans and actively carried out a series of activities such as "Safety Initiative of the First Responsible Person", "Being Whistleblower to Provide Suggestions on Safety Hazards", aiming to improve employees' safety awareness.
- Each entity actively conducted activities such as work safety lectures and various forms of skills competition to improve professionalism of our teams.

2.3 Safety Training

Air China continued to develop a training system in accordance with the *Training Management Manual* in 2022. We optimized training programs and management manuals for dispatching operations personnel, procurement personnel, newly hired pilots, cabin crew and others positions. We ensured training quality to support improving the Company's staff ability through face-to-face and online live training. Air China invested approximately RMB 221 million on training in 2022 to maintain specific qualifications for its employees.

<ul style="list-style-type: none"> • Developing vocational training courses: Developed courses that are closely relevant to reality and promoted job-specific skill recognition standards.
<ul style="list-style-type: none"> • Optimizing training process management: Developed separate management methods for safety, operations, service and flight professional training.
<ul style="list-style-type: none"> • Strengthening the construction of flight instructors: Standardized the management of part-time instructors, formulated the selection and recruitment criteria for full-time instructors, and carried out instructor assessments.
<ul style="list-style-type: none"> • Creating the online learning platform: Introduced 903 courses on online training platform, such as technical theory, bringing the total number to 3,533.

Safety Training Performance Data of Air China and Major Subsidiaries^[1] in 2022

<p>Average qualification training hours divided by specialty (1,000 Person-hours)</p> <p>Flight training:646</p> <p>Flight attendants training:1,203</p> <p>General training for ground workers:825</p>
<p>Total qualification training hours for pilots (1,000 Person-hours)</p> <p>Safety training:410</p> <p>Flight simulator training:84</p> <p>Hazardous goods retraining:61</p> <p>Emergency retraining:91</p>
<p>Total qualification training hours for the flight attendants (1,000 Person-hours)</p> <p>Safety training:940</p> <p>Hazardous goods retraining:51</p> <p>Emergency retraining:212</p>
<p>Total qualification training hours for the ground workers (1,000 Person-hours)</p>

3. Green Operations

Air China has committed to the concept of "green operations and sustainable development", seizing the opportunities provided by national development strategies and responding to the national call for low-carbon. We have prioritized climate change and its consequences, standardized and optimized the environmental management system, strengthened energy resource management, strictly limited pollutant emissions, and emphasized the development of low-carbon environmental awareness. Therefore, we have achieved green and low-carbon development, while continuously increasing economic efficiency.

The "14th Five-Year Plan" in the Environmental Field

- Proactively support the "dual carbon" strategy of "carbon peaking and carbon neutrality"
- Improve the management system, and enhance management ability
- Strengthen energy management to achieve low-carbon development
- Fight the battle of pollution prevention and control, and defend the blue sky continually
- Shape an image of a green State-owned aviation enterprise and demonstrate our corporate social responsibility

3.1 Environmental Guidelines

- Stay committed to our strategies and the mission in practice
- Comply with laws and protect the ecological environment
- Promote pollution alleviation and carbon emissions reduction, and achieve low-carbon development
- Take the lead in green aviation and make concerted efforts to build a better homeland

3.2 Improvement of Environmental Management System

Air China strictly adheres to the *Environmental Protection Law of the People's Republic of China* and other relevant laws and regulations, continuously promotes the development of the Company's environmental management system based on the industry development plan and its development strategy to ensure environmental management more systemically, wholly, and unified.

Measures to enhance our environmental governance capabilities

- Issued management policies and continuously strengthened environmental management supervision.
- Promoted the ISO 14001 environmental management system certification at Air China's headquarters and 8 subsidiaries, and ensured the continued effective operations of the environmental management system through annual supervision and audits.
- Established an energy conservation and environmental protection responsibility system, signed the *Energy Conservation and Environmental Protection Responsibility Letters* with 25 subsidiaries and departments, and conducted annual special inspections.
- Prepared quarterly energy conservation and environmental protection briefings, conducted special inspections of the Company's key energy-consuming entities, continuously promoting the improvement of environmental governance capacity and efficiency.

3.3 Addressing Climate Change

Climate change is a global challenge of the 21st century. Air China actively responds to the construction of China's ecological civilization, adheres to the new development concept, and strives to improve climate change governance. With references to the framework and recommendations of the Task Force on Climate-related Financial Disclosure (TCFD), we proactively identify and address the risks and the opportunities brought by climate change, and take practical steps supporting China's "dual carbon" strategy and corporate development.

3.3.1 Climate Governance Framework

Air China has been improving top-level administration of the climate governance. A Leading Group for Ecological and Environmental Protection has been established under the direction of the chairman and president, with representations from the Company and its subsidiaries' top executives and core employees. We have included ecological civilization strategy and the *Action Plan for Peaking Carbon Emission* into the Company's list of authority and responsibility for major issues. We seek to fully execute the Company's dual carbon strategy by incorporating the idea of climate change into all facets of corporate governance.

3.3.2 Our Strategy

In responding to the urgent climate change situation, Air China has assumed corporate responsibility, developed a number of guiding and fundamental documents, including the *14th Five-Year Plan for Green Development* and the *Action Plan for Peaking Carbon Emissions*. We have shifted our management from energy savings and environmental protection performance assessment to dual carbon assessment and supervision management, from the cost-driven management to a carbon asset and ecological civilization construction management.

Air China's Carbon Peaking Action Principles

- Focus on a comprehensive and truthful principle
- Focus on efficiency and reducing carbon emissions at the source
- Focus on innovation-driven and technology-led development
- Focus on openness and integration, taking multiple measures

To achieve the goal of developing into a world-leading aviation transport enterprise in green development, Air China prepared the Company's *Action Plan for Peaking Carbon Emissions* based on the *14th Five-Year Special Plan for Green Development of Civil Aviation*. The Company adjusted its energy mix, controlled total carbon emissions, and balanced environmental protection with development, safety, service and efficiency via six technological paths, to achieve environment-friendly and high-quality development.

Six Technological Paths

Aviation Fuel Conservation	Sustainable Aviation Fuel	Energy-saving Technology Improvement on the Ground
Carbon Asset Reserve	New Green Technologies	Green Initiatives for All

3.3.3 Risk Management

Air China has incorporated climate change risk metrics into its existing risk management system, by reference to the framework and recommendations of the Task Force on Climate-related Financial Disclosure (TCFD) and relevant policies and guidelines, such as the *14th Five-Year Plan* and the *China's Policies and Actions for Addressing Climate Change (2022)*.

Climate Change Risk Identification

Air China considers the interaction between climate change and the aviation industry, as well as national policies and industry development trends, and proactively identifies and analyzes climate risks and opportunities in its operations and its value chain. We have actively developed climate change risk response plans and taken actions to improve our ability to adapt to climate change and mitigate its effects.

Climate Change Risk Identification Checklist

Risk Type	Specific Risk	Risk Description	Risk Response
Transition Risk	Policy and Legal Risks	<ul style="list-style-type: none"> □ New climate-related laws, regulations, and policies impose more stringent requirements for the industry, such as tighter emissions restrictions on civil airlines, which may influence more costs and travel habits, thus leading to less passengers and related revenue. □ The introduction of the national "dual carbon" targets and the launch of the national carbon emission trading market will possibly heighten carbon emission requirements. If the Company is included in the carbon trading system in the future, additional costs may be incurred due to the lack of carbon quotas. 	<ul style="list-style-type: none"> □ Explored and optimized greenhouse gas (GHG) emission reduction paths, established short-term, medium-term and long-term carbon peaking and carbon neutrality goals and strategies, and regularly disclosed the progress of GHG emission reduction. □ Continuously followed the carbon trading disclosure policy, strengthened communication with various regulatory authorities, developed and adjusted the Company's GHG management model in a timely manner according to policy guidelines and carbon market conditions. □ Changed energy schedule according to requirements, introduced new energy technologies, and promoted the transition of our energy mix.
	Technological Risk	<ul style="list-style-type: none"> □ Aviation fuel is one of the important environmental factors for the Company. In the context of the national "double carbon" target, the Company needs to deploy more energy-efficient and environment-friendly technologies and facilities, and increase special investment in energy conservation and emission reduction to reduce carbon emissions and the climate impact caused by aviation fuel combustion. 	<ul style="list-style-type: none"> □ Implemented energy saving and emission reduction practices, improved existing technologies, introduced and developed new technologies.

	Market Risk	<p>□ The price of sustainable aviation fuel is currently three to five times higher than fossil fuel due to restrictions on technology and scale, which has an impact on the Company's operating costs.</p>	<p>□ Continuously deepened fuel-saving measures to reduce energy consumption.</p> <p>□ Used sustainable aviation fuel as one of the important elements of Air China's carbon reduction path to reduce total carbon emissions.</p> <p>□ Comprehensively replaced aircraft Auxiliary Power Units (APU) with ground power, and promoted energy mix transition.</p>
	Reputational Risk	<p>□ In the context of climate change being a major concern, the aviation industry's carbon emission reduction efforts are closely concerned by various stakeholders. Failure to effectively implement such efforts in a timely manner will have a negative impact on the Company's public image and revenue.</p>	<ul style="list-style-type: none"> • Took the preferences and needs of stakeholders as a guide to improve the communication mechanism with them, and conducted regular evaluation and research. • Strictly followed laws and regulations, adjusted strategic plans and targets in line with current trends, and coordinated the deployment of low-carbon development paths.
Physical Risk	Acute Risk	<p>□ Extreme weather events, such as typhoons, extreme rainfall and floods, exacerbate the impact of climate risks on our routine operations and may lead to flight delays, forced landings or cancellations, thus affecting the supply chain and transportation network, weakening freight and passenger transportation capacity.</p> <p>□ The occurrence of extremely hot and cold temperatures may increase the probability of employee health and safety risks.</p>	<p>□ Developed special emergency rescue plans to deal with extreme weather such as flooding, lightning, cold weather, typhoon and heat stroke, improving emergency response speed.</p> <p>□ Conducted a timely assessment and pre-analysis of changes in operating conditions by monitoring flights, took measures to control flight returning and diversions, and provided support to the aircrews on the ground.</p>
	Chronic Risk	<p>□ Scenarios such as global warming, rising sea levels, and tidal intrusion may lead to high frequency and increased duration of temporary operational disruptions and maintenance as well as more cost.</p>	<p>□ Deployed a professional maintenance and troubleshooting team.</p> <p>□ Invested more funds in R&D to improve repair and maintenance efficiency, and reduced energy consumption.</p>

Climate Risk Management

Energy Conservation and Environmental Protection Management	<ul style="list-style-type: none"> • Developed energy-saving and environmental protection management methods and held annual meetings to integrate energy-saving and environmental protection into operations. • Developed and put into operation the energy-saving and environmental protection management platform, and formed production statistical reports and risk ledgers through the automated collection of data from multiple systems. • Established the energy conservation and environmental protection responsibility system, signed the responsibility letters with 25 subsidiaries and departments, and carried out annual special inspections on energy conservation and environmental protection.
Environmental Risk Management	<ul style="list-style-type: none"> • Released important documents such as Air China's contingency plan for environmental emergencies and environmental compliance evaluation reports, and regularly conducted self-inspections and annual special supervisions on energy-

	saving and environmental protection.
Carbon Emission Management	<ul style="list-style-type: none"> Implemented centralized management of carbon assets, unified carbon trading management and operations, established a carbon price monitoring and early warning mechanism, and scientifically formulated trading strategies. Developed and put into operation a carbon emission management and analysis platform, which could automatically provide carbon emission data statistical analysis and reports, meeting the requirements of multiple sets of carbon emission management systems.
Voice of the Industry	<ul style="list-style-type: none"> As a member of the IATA Environment Committee, the Technical Standardization Committee on Aviation Environment Protection of China Air Transport Association, and the Sustainable Development Strategy Committee of Star Alliance, we actively spoke up for the civil aviation industry under the unified leadership of CAAC. Participated in research on national, local and industry carbon emission related policies, and provided industry suggestions and practical experiences to governments and authorities at all levels.

3.3.4 Our Goals

Air China has established science-based carbon reduction goals that are in line with the climate change goal of limiting the rise in global temperature to no more than 2°C over pre-industrial levels by the end of this century. Air China developed a work plan for green development in 2022, clarifying the overall objectives and proposing key targets for environmental compliance, energy saving and carbon reduction, and "dual carbon" tasks, in accordance with the work requirements of governments at all levels and industry authorities.

<p>Air China Environmental Goals</p> <ul style="list-style-type: none"> In terms of environmental compliance, no environmental violation shall occur. In terms of energy saving and carbon reduction, we will strive to achieve a year-on-year reduction in carbon emission intensity. In terms of "dual carbon" tasks, we develop the <i>Action Plan for Peaking Carbon Emissions</i> in accordance with the national "dual carbon" strategy, the national and industrial development plans, the Company's strategic, as well as our actual situations.
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Greenhouse Gas Emissions Data of Air China and its Subsidiaries^[2] in 2022

GHG emissions	Unit	2021	2022
Scope 1: CO ₂ emissions	1,000 tonnes	15,218	9,823
Scope 2: CO ₂ emissions	1,000 tonnes	224	229
Total CO ₂ emissions	1,000 tonnes	15,442	10,053
CO ₂ emissions intensity	g / tonne-km	1,124.70	1,126.5

Indicator name	Unit	2022
Introduced new aircraft in 2022	unit	36
Retired old aircraft in 2022	unit	20
Fuel consumption intensity in 2022	kg / tonne-km	0.358
Owned aircraft by the end of 2022	unit	762
With the average age of the aircraft by the end of 2022	year	8.59

3.3.5 Our Actions

As an air transportation company, we understand that a low-carbon operation is one of the most crucial ways to meet the goals of energy conservation and emission reduction. Air China has actively pursued special efforts for carbon peaking and carbon neutrality, investigated the strategic routes of carbon reduction, created carbon reduction action plans, deepened carbon asset management, and steadily promoted the Company's green and low-carbon development.

<ul style="list-style-type: none"> Seminar on "Low-carbon and Sustainable Development in Civil Aviation" <p>Air China held a seminar on "Low-carbon Sustainable Development in Civil Aviation", focusing on the new development trend in the industry, discussing the current status of sustainable development technologies, development paths, and cooperation models centered around the "dual carbon" targets.</p>
<ul style="list-style-type: none"> Prepared the <i>Action Plan for Peaking Carbon Emissions</i> <p>Air China has set up a special working group on carbon peaking and neutrality, made the <i>Action Plan for Peaking Carbon Emissions</i> in line with the <i>14th Five-Year Plan for the Green Development of Civil Aviation</i>, and adjusted the energy mix and controlled total carbon emissions through six technological paths.</p>

<ul style="list-style-type: none"> Actively promoted carbon trading <p>Air China organized the carbon emission reports, related verification and compliance work with its subsidiaries related to the country, Beijing city, CAAC and the European Union. We formulated our annual carbon trading plan in the Beijing carbon market, continued to build centralized carbon trading management capacity, optimized the carbon trading commission management process, and promoted the revision of carbon trading management methods and the construction of internal control processes.</p>
<ul style="list-style-type: none"> Engaged in industry discussions <p>Under the unified leadership of the Civil Aviation Administration of China, Air China participated in the International Civil Aviation Organization Council - Committee on Aviation Environmental Protection (ICAO-CAEP) Working Group, the International Air Transport Association Sustainability and Environment Advisory Committee (IATA-SEAC), and the Star Alliance Sustainability Committee to actively speak up for the China's civil aviation industry.</p>
<ul style="list-style-type: none"> Carbon market policy and market information service <p>Air China actively tracks the latest developments in international and domestic climate governance and carbon markets, and provides market and policy information service to emission control entities within the company. Throughout the year, we completed 12 monthly carbon market newsletters, the monthly analysis reports on the EU and Beijing carbon market, and conducted weekly analysis of the Beijing carbon market.</p>
<ul style="list-style-type: none"> Launched the "Carbon Neutral" flight service <p>Through the establishment of a one-stop carbon offset platform, Air China provides passengers with carbon footprint calculation and carbon offset service for national certified emission reductions. Passengers can voluntarily participate in carbon emission reduction projects such as domestic reforestation through flight miles or cash payments, contributing to "carbon neutral" flights and reducing the environmental impact of carbon emissions from air travel.</p> <p>On September 3, 2022, Air China's "Low-Carbon Green Travel Program" won the Green Development Demonstration Case Award at the 2022 China International Fair for Trade in Services.</p>

3.4 Emissions Management

Air China always adopts a problem-oriented approach, effectively promoting pollution management by improving the risk checklist, building a robust management system, and making special actions to fight with pollution.

3.4.1 Waste Gases Management

Air China strictly follows the *Atmospheric Pollution Prevention and Control Law of the People's Republic of China*, and other relevant laws, regulations and standard documents. We actively launched various emission reduction initiatives to reduce gas generation and emissions.

<ul style="list-style-type: none"> Regularly monitor boiler waste gases and canteen fumes to ensure that emissions meet the standards. For industrial waste gas, air pollutant control devices and online monitoring facilities are installed to ensure that emissions meet the standards. Ground power and air conditioners are used by all aircraft connected to the air bridge, to reduce the usage of APUs. By the end of 2022, Air China had signed 117 agreements of APU substitution with domestic airports, achieving full coverage. Comprehensively promote the renovation and upgrade of vehicle emissions at the airport. From 2018 to the end of 2022, Air China completed the retrofitting of 1,474 diesel vehicles in the domestic airports to reduce exhaust emissions.
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3.4.2 Wastewater Management

Air China strictly adheres to the *Water Pollution Prevention and Control Law of the People's Republic of China* and other relevant laws and regulations. We work to achieve integrated wastewater control and discharge by implementing whole-process management during the operation process.

<ul style="list-style-type: none"> Sanitary wastewater is regularly monitored to ensure that the discharge meets the standards, which is uniformly discharged into the airport after treatment and then the municipal pipeline networks . For industrial wastewater, we are equipped with wastewater treatment facilities and online monitoring devices to ensure that the discharge meets the standards. In 2022, we treated 485,000 tonnes of industrial wastewater, with a 100% industrial wastewater treatment rate.
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3.4.3 Waste Management

Air China strictly adheres to relevant laws and regulations related to waste management, develops regulations on managing hazardous waste temporary storage, and on-site emergency response measures for accidents. Furthermore, we sign the *Hazardous Waste Disposal Agreement* with third-party entities to strictly regulate the process of classification, collection, storage, and disposal of various types of waste, such as household waste, kitchen waste, in-flight waste, and hazardous waste, in order to ensure that the waste is discharged in accordance with the standards, reducing the environmental impact further.

<ul style="list-style-type: none"> Household waste is sorted out and transported to the designated waste storage area for unified recycling and treatment by third parties. Kitchen waste is transported to the designated waste storage area and handed over to qualified third parties for
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unified recycling and treatment. By the end of 2022, a total of about 3,073.6 tonnes of kitchen waste^[4] had been disposed of properly.

- Hazardous waste is transported to the designated waste storage area and handed over to qualified third parties for unified treatment. By the end of 2022, 1,112.4 tonnes of hazardous waste had been disposed of properly.
- In-flight waste is transported to the designated area of the airport and handed over to the airport for unified recycling and treatment.

Disposed hazardous waste from aircraft maintenance^[4] (tonne)

Indicator	2021	2022
Waste containers and contaminants	402.9	317.8
Waste oil	160.8	191.7
Waste cleaning fluid	174.1	180.8
Waste paint and paint bleaching liquid/slag	34.2	51.8
Waste activated carbon	105.8	163.3
Wastewater treatment sludge	164.2	90.1
Spent acid	26.4	40.9
Spent alkali	17.9	30.6
Waste mercury-containing fluorescent tubes	1.7	2.1
Waste reagents and detection solution	0.3	0.7
Waste batteries	0	0.9
Spent developer	0.2	0.1
Spent resin, waste rubber	0.6	0.2
Waste chemicals	0	0.9
Electroplating wastewater	0	40.5

Plastic Limit

Air China is committed to plastic limit by comprehensively promoting special actions of plastic and waste reduction. The Company has always adhered to plastic limit principles of reduction, standardization, and recycling, developed a special action plan for plastic control, comprehensively implemented plastic and waste reduction in six areas, and completed task targets as planned at each stage.

● Aviation products: Starting from January 1, 2022, all products such as knives, forks, spoons, cups and stirring sticks of Air China's domestic flights and airport lounges had been replaced with biodegradable materials.
● Cargo transportation: Promoted biodegradable rain cloth on a pilot basis.
● Office supplies: Issued the <i>Notice on Promoting Plastic Pollution Control in Offices</i> , and implemented plastic limit and prohibition requirements in all offices of Air China.
● Hotels and apartments: From December 2020, all hotels, guesthouses and apartments no longer actively provide sixtypes of disposable goods.
● Procurement management: The <i>Notice on the Implementation of Green Procurement</i> was issued to promote green procurement across the Company.
● Plastic waste sorting and recycling: Waste sorting and recycling facilities had been fully installed in all buildings of the Company.

3.4.4 Noise Management

Air China actively promotes noise pollution prevention and control and strictly adheres to relevant laws and regulations, such as the *Regulations of the People's Republic of China on the Prevention and Control of Noise Pollution*. We have established noise management procedures and implemented the *Environmental Standard of Aircraft Noise around the Airport* to control noise emissions. We work hard to minimize the impact of noise on the surrounding environment as well as our employees' health and safety.

3.5 Use of Resources

Air China, guided by high-quality environmental management, focuses on energy savings and consumption reduction by actively exploring the use of new energy, strengthening water resource management, improving energy consumption efficiency, and recycling resources. We are committed to integrating green energy savings philosophy into all aspects of construction and operation management, working to alleviate the stress caused by

environmental risks, and creating a model of resource-saving aviation enterprise.

3.5.1 Energy Saving and Consumption Reduction Management

<ul style="list-style-type: none">Promoted fuel savings in operations <p>The Company evaluated the operating conditions in a science-based way, effectively controlled the flight returning and diversions, reasonably controlled the weight of aircraft, and continuously optimized the matching of aircraft models with routes, to effectively improve the transport capacity, operation quality and the reduction of fuel consumption. In 2022, we saved 7,767.8 tonnes of aviation fuel and reduced 24,000 tonnes of carbon dioxide emissions.</p>
<ul style="list-style-type: none">Replaced APUs^[5] with alternative facilities <p>We further boosted the use of 400 Hz static power supply and ground air conditioning equipment as much as possible, to further reduce aircraft emissions on the ground. It was estimated that Air China reduced CO₂ emissions by 248,000 tonnes with APU alternative facilities in 2022.</p>
<ul style="list-style-type: none">Promoted the application of sustainable aviation fuels <p>On October 20, we completed the flight of the A350 with domestic-made sustainable aviation fuel, making Air China the first domestic airline to take delivery of a wide-body passenger aircraft powered by domestic sustainable aviation fuel, and the first domestic airline powered by sustainable aviation fuel on both Airbus and Boeing aircraft.</p>
<ul style="list-style-type: none">Optimized the energy mix <p>We continuously optimized the energy mix and promoted the transition from oil to electricity. The Company procured 119 new energy vehicles, bringing the total number to 1,058. We installed 92 new self-built charging piles, bringing the total number to 329. We retrofitted 1,402 vehicles to reduce exhaust gas. It was estimated that we reduced the total fuel consumption of vehicles by 3,115 tonnes and carbon dioxide emissions by 9,450.2 tonnes in 2022.</p>
<ul style="list-style-type: none">Research and development of the Aircraft Ground Fuel Transfer System <p>We have independently developed the Aircraft Ground Fuel Transfer System to achieve safe and clean fuel transfer directly. The system can reduce the waste in fuel pumping for aircraft model replacement, overhaul and maintenance, reusing the "waste oil". The project was awarded the Technology Innovation Service Demonstration Case at the 2022 China International Fair for Trade in Services.</p>

3.5.2 Water Management

Air China strictly adheres to relevant laws and regulations, such as the *Water Law of the People's Republic of China*, continues to improve water resource management processes, as well as developing the *Water Management Regulations*. We have extensively researched water conservation and environmental protection technologies, improved water recycling management, aiming to be a model of water-saving aviation enterprise.

- Set up metering devices in the office area to monitor water consumption, providing data support for further water conservation.
- Introduced municipal reclaimed water to replace part of the tap water consumption. In 2022, Air China and its subsidiaries consumed 4.531 million tonnes water in the offices, with a per capita water consumption of 52 tonnes.
- Improved the road green belt and fountain water system. Air China proactively took water conservation measures and completed the renovation of the green belts and fountain water system in the Company's headquarters buildings. This renovation could save about 6,000 tonnes of tap water per year.
- Established a rainwater recycling system. A 4,200-cubic meters rainwater storage pool was built for the main parking building project of the Flight Crew Department. The rainwater recycling system is used to integrate the rainwater for irrigating the green areas of the parking building and car washing gradually.

3.5.3 Energy Management

Air China strictly adheres to relevant laws and regulations, such as the *Energy Conservation Law of the People's Republic of China*, the *Measures for the Administration of Energy Conservation of Major Energy-Consuming Entities*, in order to implement the low-carbon and environment-friendly energy resource management. We created the *Energy Conservation and Emission Reduction Management Manual* and promoted to build green offices extensively. We have taken the initiative to phase out the equipment and processes that consume energy and emit pollution a lot, and we have actively introduced and promoted the use of renewable energy technologies in order to improve energy efficiency.

- The lighting system in the public areas of key energy-consuming buildings was renovated, and ordinary energy-saving lamps were replaced with radar-sensing LED lamps. By the end of 2022, we replaced more than 30,000 lamps.
- The Air China Aircrew Dormitory project adopted a dual-system operation mode integrating solar heating and high-temperature steam heating to provide hot water for domestic use. This model uses solar heating first and then steam heating as an auxiliary heating means to effectively save energy.
- The parking building project of the Flight Crew Department is designed into the open enclosure form, maximizing the use of natural light. This design reduces the energy consumption of indoor lighting, ventilation, and heating to a certain extent.

3.5.4 Material Management

Air China considers factors such as efficiency and sustainability when selecting materials, takes the initiative to explore practices for reducing and recycling various materials, and continues to promote "paperless" travel service for passengers.

- In 2022, we provided paperless service for a total of 8.614 million passengers on the flights of Air China, Beijing Airlines, Dalian Airlines, and Inner Mongolia Airlines.

3.6 Biodiversity Conservation

Biodiversity Conservation Projects

Air China strictly follows relevant laws and regulations such as the *Environmental Protection Law of the People's Republic of China*, the *Law of the People's Republic of China on Environmental Impact Assessment*, and the *Water and Soil Conservation Law of the People's Republic of China*. We take the initiative to carry out special environmental protection work. In 2021, the Company and the China Environmental Protection Foundation established the Air China Yangtze River Ecological Protection Fund together, and the Air China Guardianship of the Yangtze River Ecology project was launched.

Air China Guardianship of the Yangtze River Ecology Project

The "Guardianship of Gongga, Gathering Strength of Air China" project is the first initiative of Air China's Guardianship of Yangtze River Ecology, which was jointly launched by Air China and Gongga Mountain National Nature Reserve Administration in Sichuan Province. The project is designed to organize public welfare activities such as capacity enhancement of rangers, provision of devices, biodiversity conservation monitoring and promotion to low-carbon concepts and local ecological protection and restoration.

Since January 2022, Air China has begun its biodiversity conservation monitoring activities in the Gongga Mountain National Nature Reserve with 10 infrared cameras and photographed 13 species of wildlife, helping to clarify the status of wildlife in the reserve.

Management of newly-built, expansion and renovation projects

Air China strictly enforces environmental impact assessment for newly-built, expansion, and renovation projects, requiring that environmental protection facilities be designed, built, and put into use concurrently with the main project, thereby minimizing the impact of the operation process on the surrounding natural ecology and biodiversity.

3.7 Corporate Green Responsibility

Air China strongly supports the low-carbon and environmental protection philosophy, emphasizing the development of energy-saving awareness among employees, promoting an environmental protection culture, and increasing industry influence. We also work to improve industry communication, spread low-carbon ideas, and fulfill our environmental responsibilities.

Green Awareness Cultivation

Air China places a high value on educating employees about low-carbon and environmental protection, energy conservation, and emission reduction. Every year, we establish special funds for environmental protection training and promotion, thereby continuously enriching our employees' knowledge of energy conservation and environmental protection and assisting in the spread of an environmental protection culture in society.

A series of activities to celebrate the Energy Conservation Week

Air China launched the "My Low Carbon Life" essay and painting contest under the theme of "Green, Low carbon, and Energy Conservation Efforts" to celebrate both "National Low Carbon Day" and the "National Energy Conservation Week". The collection of essays and paintings vividly showed the practice of Xi Jinping's thought on ecological civilization in work and life.

The release of the "Green and Low Carbon, Building a Better Home" initiative

Air China has launched a comprehensive energy-saving and environmental protection project from the air to the ground. We actively advocate "making green the main color of high-quality civil aviation development" "using low-carbon technology to build the main engine for green civil aviation development" "Risk prevention management ensuring the ecological and environmental protection" and "to enjoy a better life with the green development concept", and make concerted efforts to build a low-carbon home.

The green-themed activity

On June 17, the "Zhaojun" crew of Inner Mongolia Airlines launched a flight activity on CA8143 (Hohhot-Chengdu) with the theme of "Building a Better Homeland with Green and Low-carbon Development". This activity aimed to promote the importance of energy saving and emission reduction to passengers, introduced the knowledge of the "dual carbon" strategy, and called on to protect the planet and the natural environment. Passengers proactively participated in the activity by sharing tips to save energy and leaving appreciation remarks

and good wishes to the flight crew.

4. Product Responsibility

Air China prioritized high-quality service and followed the "service first" business philosophy. The Company implemented a comprehensive service quality management mode with "quality service" as the starting point, practiced the concept of "sincere service", actively explored upstream and downstream supply chain management methods and strategic collaboration with industry partners, and made ongoing innovations to improve the ability of service and provide world-class service to passengers.

The "14th Five-Year Plan" in the service field

Creating world-class services and products

Deepening the "Three Orientations"

Practicing the "Three Comprehensive Strategies"

Customer Orientation, Problem Orientation, Global Benchmarking, Full-process Governance Value Orientation, Endeavour throughout Entire Chain

Static Planning→ Dynamic Management

Fragmented Scene→ Full-process Connection

Passively Follow→ Actively Lead

Excellent service, Comprehensive and smooth service guarantee, Win-win and efficient collaboration, Timely and accurate service, Innovative and digital support, The trustworthy and professional team

4.1 Quality Service

4.1.1 Service Quality Management

Improving the service system

- According to the National *Guidelines for Standardization*, the Company has initially established a "1 + 2 + N" product and service standard system that divides its product and service standards into product and service basic standards, service quality management standards, and procedural work standards.
- 36 whole-process product and service standards were revised and improved throughout the year.
- A new version of the *Service Quality Management Manual* was released to further improve the Company's service quality guidelines and policies, clarifying the related matters and responsibilities of the Company's service quality management, and adding the content of service culture, service quality risk management, service innovation, and new technology application.

The Company carried out the internal audit of the service management system, analyzed opportunities for improvement to provide direction for the long-term development. At the same time, a third party was hired to conduct an ISO 9001:2015 certification audit of the Company's service management system.

● Internal audit measures

Organized an annual special audit of service.

Conducted audits for 14 units in the service field.

● External audit measures

The audit focused on 10 aspects, including annual key work planning and implementation, standard service implementation, service quality risk control, service problem rectification, and staff training, and proposed three

non-conformance items and fourteen improvement opportunities to promote improvement through audit and achieve excellent results in the development of a service quality management system.

4.1.2 Sincere Service

To meet the needs of passengers, Air China explored innovative technological service and products, enhanced service quality, providing passengers a considerate and convenient air travel experience.

Guaranteeing flight regularity

<ul style="list-style-type: none"> ● Supervised relevant units to formulate and implement the flight operation standards in accordance with the <i>Air China Flight Operation Guarantee Standard</i>.
<ul style="list-style-type: none"> ● Formulated, adjusted and implemented the flight normality assessment.
<ul style="list-style-type: none"> ● Communicated and coordinated with local transportation management committees, and cooperated with Beijing Capital International Airport to carry out the delay investigation.
<ul style="list-style-type: none"> ● Conducted a special analysis of the abnormal flights.
<ul style="list-style-type: none"> ● Carried out weather consultation about changing the flights.
<ul style="list-style-type: none"> ● Carried out weather consultation about flexible organization of route changes.

In 2022, The flight punctuality rate^[6] reached **95.45%**, up **6.49** percentage points year-on-year.
The flight execution rate was **99.2%**, up **0.17** percentage points year -on-year.

Passenger Service

<p>Smart travel Service:</p> <ul style="list-style-type: none"> ● Air China continued to promote paperless and contact-free service with 138 domestic terminals, 124 of which providing the service of electronic boarding pass customs clearance with QR code. ● Air China actively innovated and relied on information systems to improve the service guarantee capacity of the terminals, and became the first airline in China to offer the health information query and automatic verification service for international inbound passengers in the departure system, and launched its function at 28 overseas stations in Europe, America, Asia-Pacific and Africa. ● Air China continuously expanded the luggage tracking network, with the number of luggage tracking stations reaching 30; optimized the APP service, launched the function of domestic interline-luggage status inquiry, luggage status information push, and luggage tracking status inquiry between the Star Alliance members.
<p>In-flight decoration and seats:</p> <ul style="list-style-type: none"> ● The cabin visual product featuring "Phoenix Dancing in the Clouds" was put into use. The new in-flight decoration perfectly integrates the beautiful artistic conception of "leaning on the Phoenix, sitting and enjoying on the cloud" with the relaxed and comfortable lifestyle, creating an exclusive comfortable flight experience in Air China. The new A350 business class seats are exclusively customized and offer an enhanced sense of spaciousness, functionality and comfort.
<p>In-flight entertainment:</p> <ul style="list-style-type: none"> ● The new version of the in-flight entertainment system interface is more convenient and more user-friendly. ● The "Thousand miles of rivers and mountains" version of the in-flight Safety Instructions was launched. While spreading safety knowledge and China traditional culture, the new IP image of "Air China Baby (Dragon Baby, Phoenix Baby) " made debut.
<p>In-flight meals:</p> <ul style="list-style-type: none"> ● We collaborated with Quanjude Group to launch a new concept of in-flight catering. We initiated an upgrade of Air China's themed meal box service, incorporating green development, energy saving and environmental protection concepts into the product design, could provide passengers with a convenient and innovative in-flight dining experience.
<p>Marketing products:</p> <ul style="list-style-type: none"> ● The "Evergreen Plan" and "Qingxin Card" products were launched, and the second phase of the "Elderly Rights Card" products were launched for the elderly aged 60 and above. ● In 10 domestic boutique routes, we launched trial operation of economy class seat selection products. ● On routes from Beijing Capital International Airport to Shanghai, Hangzhou, Chengdu, Chongqing, Guangzhou and Shenzhen, we rolled out an upgraded version of Air China Express Line. ● Air China's self-run lounge products cover 21 airports, achieving full coverage of key domestic airports and routes. With the launch of the new lounge interior design of "Zixuan" for first class and "Zichen" for

business class, the Air China spirit and Chinese culture is displayed in a fresh way.

- Together with China Railway, Air China created a first product of joint air-rail transportation, which provides one-stop ticketing service for air tickets and train tickets through the Air China App.

Responsible Marketing

Air China strictly abides by the *Advertising Law of the People's Republic of China* and other laws and regulations, and has formulated and issued internal documents, which sets out clear requirements and guidelines for the Company's marketing and promotion process, ensuring that marketing and promotion information is compliant, truthful, accurate and effective, and safeguarding passengers' right to know, while actively fulfilling its commitments to passengers.

The upgraded brand of Air China Express Line

On November 22, Air China's presentation of express line brand was successfully held. The upgraded version of Air China Express Line has further improved the ground support resources, created a quality service of "Go as You Please", and provided more comfortable and convenient travel experience for the passengers.

Special passenger service

Air China adheres to the "life first" concept, continuously improves the quality of service for special passengers, by implementing special passenger service projects, expanding the scope of service, revising the service standard, and optimizing the service process.

Improving the customer service experience

- Air China APP launched online booking portal for 10 kinds of service including those for unaccompanied children, the disabled military and police, people on wheelchairs, visually impaired and hearing impaired people.
- Launched paid products for unaccompanied passengers aged 12-18, serving 61,017 passengers in 2022.

Perfecting special passenger service

- Revised the *Special Passenger Service Standards*, optimized the transportation policy for the injured, the sick and the postoperative passengers.
- Simplified the process for disabled and injured passengers to apply for in-flight wheelchair service by equipping the flights with on-board narrow wheelchairs.

The accessibility renovation was completed on the domestic official website

- On January 14, the accessibility renovation was completed on the domestic official website, which was officially included in the list of "the first batch of elderly oriented and accessibility renovation evaluation websites" by the Ministry of Industry and Information Technology. Through intelligent analysis technology, the domestic official website now supports accessibility functions such as voice reading, color changes, size settings, large subtitle display and other functions.

Providing smooth travel service for the group of passengers with disabilities

Yangfan Ensemble of Chongqing Special Education Center, a group of 63 people who participated in the opening ceremony of the Winter Paralympics, took a round-trip flight from Chongqing to Beijing with Air China. The Company coordinated seating, guidance and other multi-step service to ensure a safe and smooth travel wholeheartedly. On March 14, the Ensemble sent a letter of appreciation to the Company.

Safeguarding the rights and interests of passengers

Air China prioritizes the protection of passengers' rights and interests by updating the *Management Regulations for Service Remediation Authorization*, launching compensation standards, establishing a monthly complaint case analysis mechanism, dealing with customer complaints in a timely manner, and protecting passengers' rights and interests.

In 2022, number of passenger complaints: the Company accepted **14,787** complaints

Passenger complaint feedback rate^[7]: **100%**

Satisfaction survey:

Passenger satisfaction questionnaires recovered: **82,349** copies

Overall passenger satisfaction: **87.5** points

Premium passenger satisfaction: **87.6** points

Ticket service satisfaction: **89.8** points

Ground service satisfaction: **84.9** points

Cabin service satisfaction: **85.7** points

International luggage loss rate (pieces/thousand passengers): **1.56**

Domestic luggage loss rate (pieces/thousand passengers): **0.2**

Passenger privacy protection

Air China strictly complies with the *Cyber Security Law*, the *Data Security Law*, the *Personal Information Protection Law of the People's Republic of China* and other laws and regulations. The Commercial Committee is responsible for managing personal passenger information, and the Company's leadership is the responsible person in charge of guiding and supervising the activities of handling personal passenger information. The Company has established internal policies that apply to all of its businesses and subsidiaries, which apply to all passengers and protect the privacy of their personal information.

Technical guarantee:

- The Company's Information Management Department was granted ISO 27001 Information Security Management System certification, and 5 core systems were granted PCI-DSS certification, including e-commerce system.
- The 5 core systems pass the three-level assessment of network security level protection.

Management guarantee:

- The Company conducts annual internal audits of its information security system, as well as external certification audits such as ISO 27001 Information Security Management System, Payment Card Industry (PCI) and Network Security Level Protection.
- The Company keeps key information systems, personnel in key positions and key equipment in control.
- Passengers can add or modify their personal information and cancel their accounts through various sales channels of Air China.
- The Company carries out fishing email combat drill to improve the safety awareness of staff.
- The Company conducts publicity and special training in information security and privacy protection for all employees, and requires outsourced staff and suppliers to complete information security training before working.

4.2 Responsible Supply Chain

4.2.1 Quality Management of the Supply Chain

Air China adheres to the principles of fairness, impartiality, and openness, and strictly abides by the *Bidding Law of the People's Republic of China* and the *Regulations on the Implementation of the Bidding Law of the People's Republic of China*. The Company established the Procurement Management Committee to coordinate the overall work of the procurement business, issued documents and continuously improved the construction of the supply chain management system. The Company signed the *Self-Assessment Questionnaire on Social Standards Compliance* with Suppliers to standardize supplier management, including the content of ethics, environmental protection, employee rights protection, anti-child labor, and forced labour, and implemented the whole-process suppliers' management mechanism to control the environmental and social risks involved in the supply chain.

Supplier Admission and Exit Mechanism

- Strictly adhered to the *Supplier Management Regulations*, required suppliers to fill out the *Supplier Information Registration Form* and the *Supplier Self-Assessment Questionnaire on Compliance with Social Standards* truthfully and provide the corresponding qualification proof.
- A qualification compliance audit team was formed to audit supplier qualifications and compliance.

Performance Management

- To achieve closed-loop management, we used "quality, safety, customer satisfaction, cost, supply guarantee, and innovation" as the core dimensions, established an assessment mechanism, and aligned the supplier assessment results with the procurement process.
- Established daily performance files for suppliers, conducted regular interviews to review performance appraisal results, devised corrective measures, and encouraged improvement for suppliers.

Classification-management

- Categorized suppliers into five levels: strategic, premium, qualified, restricted and eliminated, and established a supplier information database for standardized management.
- Encouraged the establishment of long-term partnership with premium suppliers and developed them into strategic suppliers; supervised the performance improvement of qualified suppliers; followed up the progress of rectification of restricted suppliers; and strictly cancelled partnership with the eliminated suppliers.

Responsible Procurement

- Developed the *Supplier Self-Assessment Questionnaire on the Compliance with Social Standards*, which standardized supplier collaboration in multiple dimensions, such as society and the environment.
- Incorporated the supplier's ESG risk and performance into the review scope and required the supplier's first-tier suppliers to agree to the *Supplier Self-Assessment Questionnaire on the Compliance Social Standards*, which included the above indicators.
- Suppliers involved in environment-friendly and green development procurement projects, are required to provide relevant qualification and certification materials in accordance with national environmental protection requirements.

Number of suppliers in procurement business

Domestic: **5,341** Overseas: **354**

Number of suppliers in aircraft procurement business

Domestic: **11** Overseas: **10**

Number of new suppliers

Domestic: **673** Overseas: **98**

In December, Air China revised and released the *Supplier Management Regulations* to further improve the supplier management system and promote the transformation of the procurement business. It clarifies supplier management responsibilities, standardizes supplier management requirements, strengthens risk management and realizes the transformation of supplier management to digital management.

Air China has been paying attention to the international sustainable aviation fuel (SAF) industry for a long time, and took key steps actively towards building a commercial application chain for SAF. In 2011, the Boeing B747 aircraft of Air China was used for the SAF verification flight at Beijing Capital International Airport. In 2022, the A350 wide-body aircraft delivered from the Tianjin Airbus Delivery Center, carried out the first flight with the domestic produced SAF.

Air China has implemented the special actions to promote plastic pollution control. As for passenger service products and the Company's office supplies, we effectively implemented the Company's green concept of replacing them with environment-friendly materials; as for engineering projects, we strictly controlled various types of pollution and the quality of materials and equipment; and we advocated the addition of environment protection-related clauses in the procurement requirements process, supplier qualification review and procurement evaluation process to help improve the Company's image.

4.2.2 Compliance Management of the Supply Chain

Air China always has zero-tolerance toward supply chain corruption. To prevent supplier corruption and bribery, the Company requires suppliers to sign the *Supplier Commitment against Commercial Bribery* [according to the Supplier Management Regulations](#), and proposes countermeasures while improving the system. Throughout the reporting period, all of Air China's suppliers signed the *Letter of Supplier Commitment Against Commercial Bribery*.

4.3 Coordinated Development of the Industry

Industry cooperation

- Actively participated in international organizations, became the member of Alliance Management Board Strategic Committee (AMBSC), the Customer Experience and Frequent-traveler Committee, and the Sustainable Development Strategy Group on multiple occasions.

- Selected and sent business backbone to join the national standard compilation group for *Civil Aviation Passenger Transport Terminology* and participated in national standard discussion and compilation.
- Actively participated in the development of the China Distribution & Settlement Solution (CDS) platform, which was led by the China Air Transport Association.
- Participated in the China Air Transport Association's discussion meeting of the *Domestic Revenue Accounting Manual* and proposed the plan of international passenger tickets of domestic airlines settled in RMB via the domestic clearing network.
- Actively participated in cooperation in the alliance, expanded the digital application of the alliance, launched the free seat selection service for intermodal transportation with alliance partners and enriched alliance product service, enhancing passengers' satisfaction.
- Encouraged the establishment of a collaborative communication mechanism for business rules and service disposal, as well as regular communication of business regulations and intermodal transport service, and launched cross-airline boarding service in 2022 in collaboration with Shenzhen Airlines and Shandong Airlines.

Publicity and Communication

On September 19, Air China appeared at the 7th China-Eurasia Expo. Air China focuses on the expansion of the western market, aiming to strengthen regional exchanges for the development of western China. The Expo shows the Company's efforts responding to the Belt and Road Initiative and the expanded layout of the airline network in the western region.

On November 8, Air China participated in the 14th China International Aviation & Aerospace Exhibition. With the theme of "New Journey, New Horizon", the Company showcased a comprehensive range of Air China's operation capability, products and service as well as achievements in green development. New products such as Air China's new in-flight entertainment system interface and new cabin interior design were also showed at the exhibition.

On July 22, Air China took part in the 2022 China International Travel Mart, showcasing the Company's operation capability, service and achievements in supporting the aviation industry and economic development of the southwest region.

4.4 Digital Transformation

Air China's digital transformation is an important step toward becoming a world-class enterprise and achieving high-quality development. To clarify the development blueprint for 2022-2025, the Company has developed the *Digital Transformation Action Plan (2022-2025)* and the *Special Implementation Plan of the Digital Transformation Action*, among other things. The Company established a leading group for information technology and digital construction to strengthen the top-level design of its information technology and digital work, perform information technology and digital construction management, coordination, and preliminary decision-making, to achieve unified leadership, scientific decision-making, and efficient operation.

Leading Group of Information Technology and Digital Construction

Leading Group Office

Legal Department;

Audit Department;

Strategy and Development Department;

Information Management Department;

Centralized Procurement Department

4.4.1 Building a Digital Ecology

In order to support the implementation of the Company's digital transformation strategy, Air China insists on the deep integration of technology and business, intensifies the building of business platforms, enhances the synergy and linkage of data and applications, strengthens the improvement of professional and technical capabilities, and insists on value-oriented, takes domain level platform projects as the starting point to support digital transformation of the Company.

Boosting the development of platforms for a large scale of operation

- In the field of safe operation, built the full-dimension and whole-process operation monitoring platform to

improve monitoring and disposal efficiency; launched the flight data management and application system, established the QAR big data platform, realizing the standardized data application with the QAR; put into use the security air-ground linkage information system, and significantly improved the refined management of aviation security and information sharing capability.

- In the field of the ground operation, focused on transforming Beijing Capital International Airport into a world-class hub, launched the global ground flight support platform, connected the operation service information to form the ground field database, accurately connected people and flights via mobile terminals, and realized the digitalization of the service process.

Deepening the establishment of an interactive platform for customer relations at full contact points

□ Business innovation

- ❖ Integrated account data of all channels to realize the integration of product sales and service functions on the website.
- ❖ Promoted the integral management platform iteration, launched 90 functions.

□ Marketing service

- ❖ Upgraded the domestic tariff calculation function of e-commerce platforms and greatly accelerated the speed of the updates.
- ❖ Enriched the prepaid luggage products of domestic websites and comprehensively optimized flagship stores' return and rebook function.
- ❖ Continuously improving the customer relationship management system function, with the total number of Phoenix Miles members exceeding to 75.11million.

□ Full-process service

- ❖ Promoted the whole-process passenger information notification project.
- ❖ Built passenger in-flight catering reservation management system and a digital platform for the whole process of catering reservation.
- ❖ Built the face recognition platform to achieve a breakthrough in face recognition and intelligent service.
- ❖ Promoted online contact-free service, independently developed the special passenger shared service center, and added in-flight wheelchair and guidance service.
- ❖ Completed the integration and application of luggage data, established Air China's whole-process luggage tracking system.
- ❖ Continued to improve the lounge service management system's functions, launched the paid lounge and other products, realizing the quantity of personalized service and non-aviation revenue growing together.

4.5 Technological Innovation

4.5.1 Innovation Laboratory

Company-wide Innovation Laboratory

Aircraft Maintenance Engineering Technology R&D Center

Digital Transformation Innovation Laboratory

Air Internet Innovation Laboratory

Professional Field-based Innovation Laboratory

Chengdu Regional Hub Operation Innovation Laboratory

Operation Control Innovation Laboratory

Flight Innovation Laboratory

Marketing Service Innovation Laboratory

Ground Service Innovation Laboratory

Training Innovation Laboratory

IT Innovation Laboratory

Product and Service Enhancement Innovation Laboratory
Cultural and Creative Innovation Laboratory

4.5.2 Innovative Measures

Promoting efficient operation of innovation platforms

- Launched the innovation management platform and rolled it out company-wide.
- Established a flight innovation laboratory to expand the coverage of research and development fields.
- Promoted and completed the inspection and rectification to all the 6 innovation laboratories.

Fostering an innovative atmosphere

- Completed the selection for the first innovation award, and rewarded the outstanding innovation achievements in the Company.
- Promoted the 2022 Innovation Talent Training program.

Innovation Workshop activity

Air China took the 95583 service scene as the soil for innovation, dug out innovative projects such as "willing and daring actions", and promoted the innovative thinking of the staff. At last 10 innovation schemes with delivery conditions and 9 reasonable suggestions were selected.

Air China's first Ka air-ground interconnected aircraft officially coming into trial operation

The Ka satellite communication system, developed by AMECO, is the first large-scale antenna modification project for civil aircraft designed and developed by a Chinese MRO company. Based on the WIFI interconnection of high-throughput Ka-band satellites, passengers can enjoy high-speed Internet service on board.

Innovation Laboratory Open Day

On August 26, the 26th Open Day was organized by the Ground Service Innovation Laboratory to conduct in-depth discussions on innovative projects in the ground service area, laying a good foundation for improving passenger service.

4.5.3 Intellectual Property Rights Protection

Air China strictly observed the *Trademark Law* and other related laws and regulations, formulated internal policies to regulate the application and approval process for various types of intellectual property rights and implement policies on the protection of intellectual property rights.

By the end of 2022, Air China had more than **2,770** registered trademarks

330 registered patents

15 copyrights

There was **0** incidents of trademark infringement due to the liability of Air China throughout the year.

5. Employee Development

Air China adheres to the principle of "people-oriented" and effectively upholds the rights and interests of its employees, while prioritizing their occupational health and safety. Additionally, we place great emphasis on employee talent development, make clear channels for employee advancement, enhance the salary and welfare plan, achieving common development with employees.

5.1 Equal Employment

Air China strictly complies with the *Labour Law*, the *Labour Contract Law*, the *Employment Promotion Law of the People's Republic of China*, and other national laws and regulations. We implement an open, fair, and equal employment policy, strictly prohibit any form of child labour or forced labour, insist on equal pay for equal work, and resist discriminatory behaviors against employees due to gender, race, nationality, physical conditions, religion, marital status, or other factors. The company is committed to protecting the legitimate rights and interests of employees. We issue and require all employees to sign the *Employee Code of Conduct*, which outlines clear expectations for ethical employee behaviour. In the event of a violation, the Company will handle the situation in accordance with applicable laws and regulations, as well as relevant provisions such as the *Punishment Regulations for Labour Discipline Violation*. As of 2022, the Company had 87,190 employees. There were no incidents of child labour, forced labour, discrimination, or other violations. The labour contract signing rate for employees was 100% and the collective contract coverage rate was also 100%.

Air China Employees in 2022

Type		Number	Percent
Total employees of Air China		87,190	100.0%
Number of employees by employment type	Contracted	81,958	94.0%
	Dispatched	4,226	4.8%
	Interns	566	0.7%
	Other	440	0.5%
Number of employees by gender	Male	52,469	60.2%
	Female	34,721	39.8%
Number of employees by age	≤35	51,436	59.0%
	36-45	24,027	27.6%
	≥46	11,727	13.4%
Number of employees by region	China	84,780	97.2%
	Overseas	2,410	2.8%
Number of employees by profession	Management and management support	10,943	12.6%
	Marketing and sales	4,954	5.7%
	Operation	4,625	5.3%
	Ground handling	11,838	13.6%
	Cabin service	22,961	26.3%
	Logistics and support	5,872	6.7%
	Flight crew	10,789	12.4%
	Engineering and maintenance	13,372	15.3%
	Information technology	910	1.0%
	Others	926	1.1%
Number of employees by education	Master's degree and above	3,865	4.5%
	Undergraduate	48,314	55.4%
	Junior college	25,136	28.8%
	Technical secondary school and below	9,875	11.3%

Employee Turnover of Air China in 2022

Type		Turnover Rate
Employee turnover by type	Contracted	2.7%
	Dispatched	5.7%
	Interns	7.4%
	Other	/
Employee turnover by gender	Male	2.4%
	Female	3.6%
Employee turnover by region	China	2.9%
	Overseas	0.5%
Employee turnover by age	≤35	3.9%
	36-45	1.6%

	≥46	0.8%
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5.1.1 Salary and Welfare

<ul style="list-style-type: none"> □ Air China provides comprehensive employee welfare programs, including social insurance, housing provident fund, enterprise annuity, comprehensive medical insurance, etc. In 2022, the Company's enterprise annuity coverage rate for employees was 100%. □ In order to ensure the safe and stable operations, the Company has implemented a special subsidy policy for aircrew and groundcrew on the production line. □ Air China guarantees that employees are entitled to statutory leave and paid leave. In 2022, in accordance with relevant national laws and regulations, the Company formulated and issued the <i>Notice on Adjusting the Management Regulations on Employees' Marriage Leave and Maternity Leave</i> to increase the days of parental leave of employees. □ On the basis of the previous policies, the Company actively discussed and promoted new equity incentive plan to encourage employees to seek common development with the Company.
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5.1.2 Performance Evaluation System

Air China follows the concept of "paying for post value, personal ability, and performance results", continuously improving the employee performance evaluation system, implementing incentive policies, and strengthening incentive efforts of assessment. Social responsibility indicators, such as risk prevention and control, energy conservation and emission reduction, scientific and technological innovation, are included in the management's operating performance assessment system, which could influence the annual salary level. In 2022, the Company revised and issued the *Job Performance Management Guidance* to further regulate the entire job performance management process.

<ul style="list-style-type: none"> □ Implemented salary benchmarking analysis and promoted the market-oriented salary mechanism. □ Established a differentiated efficiency mechanism and improved the medium-term and long-term incentive mechanisms for core and key talents. □ Optimized the performance evaluation index system and simplified the performance pays delivery procedure. □ Carried out the survey of employee post-performance management with the questionnaire to make the performance management process more effective.

5.1.3 Democratic Management

Air China has continued to carry out the democratic management of employees, improves the system construction, and follows the *Operation Rules for Trade Union Organization and Construction of China National Aviation Holding Company*, to further improve the working process of grassroots trade unions' establishment, the change, and the adjustment. The Company gives full play to the role of the trade union as a bridge to actively listen to the voice of employees, creates smooth and equal communication channels, and timely obtains and adopts employees' suggestions, effectively protecting the rights and interests of employees.

<ul style="list-style-type: none"> □ Air China Trade Union held 2 Workers' Congresses in the year. □ Solicited 23 proposals for the congress, with a response rate of 100%. □ Updated and issued the list of matters for the joint meetings of the congresses and employee representatives.
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5.1.4 Employee Service

<ul style="list-style-type: none"> □ In the "Wing of Air China" 3.0 system, 4 mini apps including "service guide, labor contract, on-service income certificate, and annual leave management" were launched, and another 9 mini apps were completed to improve employees' experience. □ The Company conducted business guidance and communication with the branches of the Employee Service Center. The official WeChat platform of the center was upgraded to enhance online service capability and business line, leading to an improvement in the satisfaction of the Company's internal service.
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5.2 Training and Development

5.2.1 Training System Construction

Table: Employee Training System

Based on civil aviation laws
<ul style="list-style-type: none"> □ Establish the training system for pilots, flight attendants, flight security guards and flight dispatchers
Based on the qualification requirements of civil aviation transportation

Based on the qualification requirements of civil aviation transportation		
□ Establish the training system for dangerous goods transportation and aviation security		
Based on Air China's production needs		
Establish the training system for air transport personnel, expatriate employees and business personnel		
Projects for outstanding managers	General quality training	New employee training

<p>Training for Air China and its major subsidiaries 18 in 2022</p> <ul style="list-style-type: none"> The total number of staff who participated in training: 45,201 The total time of the staff training: 2.392 million hours
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Employee training status

	type	(hour)
Staff training hours per person by position	Senior management	46.8
	Middle management	16.2
	Staff	50.2
Staff training hours per person by gender	Male	50.3
	Female	48.1

	type	Percentage of trainees: (%)
Trained Staff percentage by position	Senior management	84.1%
	Middle management	83.6%
	Staff	93.4%
Trained Staff percentage by gender	Male employees	95.7%
	Female employee	90.3%

<p>Training organized by superior organs</p> <p>17 Air China employees attended training courses provided by SASAC and CAAC, completing 7,944 hours of training.</p>
<p>Training program for young cadres</p> <p>Through the organization of basic training courses for young cadres, We promoted to build a young cadre team of a highly qualified professionals.</p>
<p>Online training</p> <p>Air China offers leadership enhancement courses for managers. On the platform of "Air China Leadership", 12 series of online special training courses, including excellent traditional culture, carbon peaking and neutrality, and talent work, were launched. A total of 107 courses and 309 sessions were updated throughout the year, bringing the cumulative course resources on the platform to 1,089 courses and 1,880 sessions. The total number of courses played on the platform for the year reached 5.533 million times with a total of 491 thousand hours.</p>
<p>New employee training</p> <p>In September, the "Phoenix in the Sky" training program for new employees were held in Beijing. 275 new employees from 26 departments attended the training.</p>
<p>Program of High Education for Civil Aviation Employees</p> <p>On August 5, the graduation ceremony of high education for civil aviation employees was successfully held. Through the high education project, co-organized by the Civil Aviation Administration of China and the Open University of China, a total of 260 Air China employees graduated successfully, 7 employees were awarded the honorary title of Excellent Graduate, while 5 others won the honorary title of Outstanding Student.</p>

5.2.2 Career Development

● **Talent exchange**

To promote talent exchange within the Company, the Company established a talent exchange platform and released recruitment information for 85 posts in 26 units throughout the year.

● **Management personnel competing for posts**

The Company increased the competition for the selection of cadres and carried out the selection for the positions of managers in an orderly manner. The proportion of personnel competing for management positions was significantly higher than that in the previous year.

● **Talent team building**

We issued the *Guidance on Talent Work*, established a graded and classified talent management system, vigorously introduced market-oriented talents, optimized the structure of the team, improved the whole chain management mechanism of "selection, cultivation, management and employ", and formed a good situation for talents to be attracted, retained, and employed.

5.3 Occupational Health and Safety

Air China keeps pushing the development of a system for occupational health and safety of Air China and its subsidiaries and makes management rules for work-related disease prevention and health monitoring. In 2022, the Company carried out an investigation on positions with occupational disease hazards in Beijing's units. The health level of the workforce was raised through a full range of health examinations, training, and psychological consultations. In 2022, Air China lost 5,300 working days due to work-related injuries.

5.3.1 Engaging in Occupational Disease Prevention and Control

Occupational disease prevention and control

- The workers' congress was held to examine and approve the *Management Regulations on Occupational Disease Prevention and Control*.
- We conducted occupational health examinations on whole process for employees in key units with occupational hazards. We took effective management measures such as temporary removal from work for employees with occupational contraindications based on the conclusions of the medical examination body and carried out testing for jobs with occupational hazards.

Employee health examination

- In 2022, the coverage rate of physical examination for Air China employees reached 100%. Flight crews took health examinations at the medical accreditation institutions designated by the Civil Aviation Administration.
- Air China relies on Grade-A tertiary hospitals to establish health records for employees and helps provide "last-mile" post-check consultation service for employees, who need consultations and outpatient service after health examinations.

Occupational health training sessions and presentations

- 18 special lectures on the prevention and control of occupational diseases were organized. Additionally, the company conducted publicity and consultation activities on this topic and distributed more than 500 copies of related materials.

Mental health care

- Air China strengthens the development of mental health service teams and frequently provides online counseling on emotional management. The Company focuses on providing customized psychological consultation service to employees to ensure that psychological stress is effectively relieved.
- In 2022, the Employee Assistance Program (EAP) covered more than 38,000 employees.
- The service hotline received 1,904 calls from employees, and the hotline consultation time was 2,526.5 hours.
- We held 167 thematic training sessions, 9 special group counseling sessions for the new employee, 118 group counseling sessions, 17 thematic micro-courses, 1 crisis management group counseling session, 2 group counseling sessions for aircrew members, and 27 "Talking inner world" activities.

5.4 Incentives and Care

5.4.1 Advanced Model and Innovation

- Kong Jianrong from Operations Control Center, Liu Wenqi from Commercial Committee, He Haiying from Ground Service Department, Cao Hui from COVID-19 Pandemic Prevention & Control Office, and Chen Fei from AMECO were awarded the National Civil Aviation Labor Medal.
- Luo Lei from the Flight Crew Department was awarded the "Capital Labor Medal".
- 23 employees of Air China were awarded as Advanced Individual of Air Transportation for the Beijing 2022

Winter Olympics and Winter Paralympics by the Civil Aviation Administration of China.

- Li Lilong from Flight Crew Department, Yao Na from the Cabin Service Department, Zhang Ce from the Ground Service Department, and Feng Chuntao from AMECO were awarded as Advanced Individual of Beijing City for the 2022 Winter Olympics and Winter Paralympics by the Beijing Municipal People's Government.

- On January 23, 2023, the National Model Worker - AMECO Senior Engineer Ni Zejun, told his story of aircraft maintenance in 28 years on CCTV-2's "Building Dreams with Craftsmanship" program, carrying forward the dedication spirit of model workers.
- On April 8, the State Council awarded the groups and individuals who had made outstanding contributions to the preparations and competitions for the Beijing Winter Olympics and Winter Paralympics. Zhang Xin, deputy general manager of the Ground Service Department, was awarded the honorary title of Outstanding Contribution Individual of the Beijing Winter Olympics and Winter Paralympics.
- 45 employees and 23 groups of Air China were awarded the title of Advanced Model and Advanced Group separately by CNAHC, and Air China selected 120 advanced individuals and 50 advanced groups at the company level.
- In the selection of innovation studios for advanced model and craftsmen of CNAHC, 7 studios were awarded the honorary title of Exemplary Innovation Studio of CNAHC, in the second batch of selection another 7 innovation studios were awarded as Innovation Studio of CNAHC.

Vocational skills competition

- The employees participated in the first Civil Aviation International Vocational Skills Competition, held by the Trade Union of Civil Aviation Administration of China, showcasing the skills and style of Air China's employees.
- For five consecutive years, Air China had organized the employee competition to build a stage for employees, encouraging them to enrich their professional knowledge, and building the service brand image of Air China.

5.4.2 Caring for Employee Life

- In 2022, a total of RMB 62.5 million was distributed to employees during the summer and winter.
- The Company offered precise care for employees by distributing RMB 650,000 to 296 employees in need.
- The Company provided medical assistance of RMB 6.04 million to 302 employees.

Mutual aid fund for employees with serious illness

Since the launch of the mutual aid fund 3 years ago, it has provided a total of RMB 9.59 million to 480 sick employees. In 2022, Air China finished the raising work and distributing of the seventh phase of employee mutual aid funds and issued new management measures to standardize the types of major diseases and optimize the application and inspection procedures.

Care to poverty alleviation cadres and the volunteer teacher

Air China visited and distributed a total of RMB18,000 to the employees, who worked in the Zhaoping County of Guangxi Province as well as Sunite Right Banner and Xilinguole League of Inner Mongolia, including 4 long-term volunteer teachers, 2 poverty alleviation cadres, and 4 cadres serving temporary positions,

Care for female employees

- On the occasion of International Women's Day on March 8, Air China held a lecture about *Family Education Promotion Law* and other safeguarding women's rights activities and provided a series of psychological care courses for female workers to improve their awareness of rights protection.
- Air China promoted the establishment of female-friendly workplaces, carried out the upgrading action of "Loving Mother House", and provided meticulous and accurate care service for different female groups.

Cultural activities for employees

The blessing activity

Air China launched a series of thematic cultural activities. Through the selection of the Most Beautiful Employee, the collection of staff blessing videos and other forms of the activities, employees had enhanced the sense of identity and belonging.

The reading activity

In May, Air China organized employees to participate in the 21-day thematic reading activity. Through daily reading, listening and writing, a reading trend was formed, and a new look was presented.

- **The National Civil Aviation Culture and Sports Festival**

Air China organized employees to participate in the online activities of the National Civil Aviation Culture and Sports Festival in Beijing. More than 300 pieces of works for painting, calligraphy and photography were collected for online display, among which 69 of them won prizes.

6 Public Welfare

While dedicated to the Company's development, Air China also takes part in numerous social welfare initiatives, fulfilling its responsibility of rural revitalization and contributing to societal development.

6.1 Rural Revitalization

Air China implemented the spirit of General Secretary Xi Jinping's important instructions on consolidating and expanding the achievements of poverty alleviation and promoting the implementation of the rural revitalization strategy. The Company shouldered the political responsibility of paired-up assistance, helping Sunite Right Banner and Zhaoping County out of poverty, and continuing to promote the comprehensive revitalization in the industry, talents, culture, and ecology of the paired-up assistance areas.

- During the year, RMB 40 million was invested for 25 assistance projects.
- A total of RMB 59.39 million was spent on the purchase of products from the paired-up assistance areas.
- A total of 16 young employees from Air China and Shenzhen Airlines were selected for long-term volunteer teaching, completing 3,310 class hours of volunteer teaching throughout the year.
- During the year, 2,331 community-level cadres, 590 rural revitalization leaders, and 1,535 technicians were trained.

Air China gradually establishes an "Aviation+" assistance model that meets the requirements of the central government and local needs and gives full play of the state-owned civil aviation enterprise. The assistance work was integrated throughout the industry chain by expanding in-flight meals procurement and research, promoting mileage points exchanged for paired-up assistance products, and increasing publicity and promotion through aviation media and various expos.

6.1.2 Consolidating the Achievements of Poverty Alleviation

Consolidating poverty alleviation achievements is the foundation and prerequisite for all-around rural revitalization. Air China deepened rural revitalization work, ensuring the bottom line of the prevention of large-scale poverty-returning in the paired-up assistance areas.

In 2022, Air China invested RMB 8.4 million in basic education. The Company built the special education school, and facilities in the Zhaoping County Middle School such as football field and basketball court; purchased eye protection lamps for 9 primary and secondary schools, and installed safety facilities such as protection piles for kindergartens in Sunite Right Banner.

In terms of medical security, RMB 4.8 million has been invested in the construction of a Mongolian medical hospital in Sunite Right Banner, so as to strengthen the achievements of poverty alleviation in the paired-up assistance areas.

6.1.3 Comprehensively Promoting Rural Revitalization

Industrial Revitalization

Air China actively contributes to the industrial revitalization in the paired-up assistance areas and enhances the endogenous development motivation of the aided areas and the people who have been out of poverty. The Company enhanced the construction of agricultural infrastructure, improved the quality of agricultural products, and expanded the distribution channels for agricultural products, making the sustained growth of the residents' income.

Tea industry assistance

- Air China invested RMB 20.535 million in industrial assistance funds to upgrade Zhaoping County's tea industry processing base by building an integration tea industry operation center and tea industry scientific research base, and promoted the integrated development of the local tea industry chain, innovation chain and value chain by boosting tea processing, product branding and fine packaging capacity, as well as introducing modern intelligent planting technology.

- The Company helped General Mountain Group achieve the breakthrough in overseas export orders.
- From 2021 to 2022, Air China aided General Mountain Group in achieving the transformation of 15 technological achievements. As a result, General Mountain Group's subsidiary was awarded "National High-tech Enterprise". Additionally, it was approved to create "Guangxi Zhaoping Tea Technology Backyard" jointly with Peking University, which opened a precedent for scientific research and innovation in the entire chain of Guangxi's tea industry.

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Consumption-driven assistance

- Air China organized and guided employees and Phoenix Miles members to actively participate in consumption-driven assistance. Over the past few years, the company has purchased agricultural products totaling RMB 290 million from the paired-up assistance areas, and in 2022, we contributed RMB 59.39 million through consumption.
- During the activity of supporting rural development, held by the State-owned Assets Supervision and Administration Commission, Air China organized employees to buy a total of RMB 8.16 million products to support agriculture.
- In our platform "Air China Phoenix Miles Member Mall", the Company organized the exhibitions and marketing activities for tea from the paired-up assistance areas, which generated sales revenue of RMB 290,000.
- Young volunteers were organized to sell goods in the tea garden through live streaming. The number of online people in a single live stream exceeded 31,000, and the cumulative sales revenue reached RMB 1.102 million.

Talent Revitalization

Air China promoted the revitalization of rural talents through volunteer teaching and training in order to strengthen the foundation of rural talent and advance rural revitalization to a new level. The training fund was put into use a total of RMB 4.55 million.

Volunteer teaching

Air China has dedicated to the "Air China Blue Sky Classroom" volunteer assistance project for 5 consecutive years. In 2022, we further established and improved the selection and training mechanism of teaching volunteers and perfected the systematic construction of volunteer teaching in terms of both theory and practice. A total of 16 teaching volunteers from Air China and Shenzhen Airlines taught a total of 3,310 class hours in Zhaoping, and the students' grades improved significantly compared with last year.

Air China Blue Sky Youth Study Project

Air China set up the Air China Blue Sky Education Development Fund in Sunite Right Banner and continued to organize activities of the "Air China Blue Sky Youth Study" project, focusing on cultivating young people who want to dream and realize their dreams.

Comprehensive training programs

Air China cooperated with professional educational institutions such as Beijing Normal University to provide special skills training for primary and secondary school teachers. The Company conducted comprehensive training programs covering community-level managers, rural revitalization leaders, and technical personnel, which further enhanced the professional level of grassroots officials in the paired-up assistance areas and improved the employment and the wealth making ability of poverty-alleviation households.

Cultural Revitalization

Rural revitalization is not only about industry development but also about casting the culture. Air China has made significant efforts to revitalize rural culture so that people could enjoy a more fulfilling and higher-quality spiritual and cultural life, which helps create a new atmosphere of rural social civilization.

Culture co-construction with Ulanmuchi of Sunite Right Banner

Air China encouraged the people of Sunite Right Banner to carry forward the local culture and invested a total of RMB 2 million to support the art creation of Ulanmuchi culture and artistic performances. During the convening of the 20th CPC National Congress, the Ulanmuchi and Air China jointly wrote songs together to carry forward the core socialist values.

Family education demonstration

Air China joined hands with the Research Institute of Mother Philosophy to hold parenting lectures and the "Air China Blue Sky Parent-child Summer Camp" in Zhaoping County, contributing to setting an example of family education demonstration.

Ecological Revitalization

Air China actively encouraged people in the paired-up assistance areas to prioritize ecological development. While assisting in the growth of local industry, Air China continued to improve the environment and promoted the deep integration and diversification of the rural ecological chain, industrial chain, and value chain.

Jiangkou Village Infrastructure Construction project

Air China carried out infrastructure construction projects in Jiangkou Village of Zhaoping County, got through the farmland irrigation system, installed solar street lamps, maintained roads and drainage pipes, etc., benefiting more than 4,700 people in the village, and effectively improving the safety and quality of the community.

Organization Revitalization

Air China followed the agriculture-related principles of the Communist Party of China, assisting grassroots Party organizations in the paired-up assistance areas to improve their leadership system and working mechanism and increase their working capacity.

Joint rural Party organization building

Air China invested RMB 1.9 million in Sunite Right Banner to improve the infrastructure construction of the Party school and launch the special training project of the Party school. Through the joint Party building activities with the Ulanmuchi Party Branch of Sunite Right Banner, the General Mountain Group Party Branch of Zhaoping County, and the Party Branch of Jiangkou Village together, the Company put into the "red gene" of flag carrier into the construction for rural revitalization.

6.2 Neighbourhood Assistance

Under the unified guidance of the Company, each branch carried out the neighbourhood assistance work based on the local situation.

Promotion of agricultural products

On September 6, Zhejiang branch held an agricultural products promotion activity to assist Qingyuan County of Zhejiang province to broaden the sales channels of agricultural products.

Consumption to support agriculture

In 2022, Chongqing Branch purchased agricultural and husbandry products totaling RMB 796,800 from Xiangyun Village, Henghe Town, Wanzhou District, Chongqing City, to help villagers increase their income.

Serving the People

The cadre from Inner Mongolia Airlines, who worked in the paired-up assistance village, acquired the health situation of the herdsmen in Ergenhe village, Oroqen Autonomous Banner, Hulunbuir City.

Low-carbon photovoltaic project construction

Zhejiang Branch invested RMB 180,000 to assist Huangyu Village of Qingyuan County to promote the roofing photovoltaic projects of public buildings, factories, family houses, etc.

Setting up a public welfare photo studio

In October, the first public welfare photography studio - "Phoenix Photography Studio", jointly founded by the village assistance team of the Southwest Branch of Air China and the Songduo Town People's Government, was officially opened. In order to welcome the Spring Festival of 2023, the members of the Studio traveled more than 300 kilometers in 4 months to take family photos for 2,097 people from 402 households in Songduo Town, enriching the cultural life of the villagers.

6.3 Volunteer Activities

Air China adheres to the volunteer service concept of "dedication, friendship, mutual assistance and making progress", and actively encourages employees to participate in social welfare activities and give back to society.

Young volunteer activities

Air China organized various units to carry out 1,383 young volunteer activities, engaging over 30,000 young volunteers. The service time reached 23,178 hours, and more than 75,000 passengers were served.

Golden Phoenix Mother volunteer service

Golden Phoenix Mother volunteer service project started from the assist to an orphaned child by the "Golden Phoenix" cabin crew of Air China in 2005. For more than 10 years, the Golden Phoenix cabin crew has been working together with the cabin service department to build a growing volunteer team, with more than 1,000 cabin crew members participating in volunteer work for the development of children and youth. They carried out charity projects including visiting stay-at-home children in Sichuan Province, establishing the Air China Golden Phoenix Book Corner in Chaoshan region, and donating books constantly. In November, the Golden Phoenix Mother volunteer project won the Silver Award in the Sixth China Young Volunteer Service Project Competition.

Volunteer work for the Winter Olympics and Paralympics

During the Beijing Winter Olympics and Paralympics, Air China selected 197 volunteers to participate in the event service and airport transfer support work, and the volunteer work amounted to 1,497 hours.

Volunteer Service for disabled children

Shanghai Branch regularly carries out Volunteer Service for disabled children and organizes volunteers to visit the Shanghai Yuemiao Foster Home to show consideration for the children.

Thematic activities for the elderly

On October 4, the "Heyue" team of Zhejiang Branch visited Hangzhou Yuhua Elderly Home and organized a thematic activity for the Elders' Day. The volunteers interacted with the elderly and provided them with care and warmth.

6.4 Supporting the Community

6.6.1 Major Transport Support Tasks

With our rich experience in providing air transport service, Air China has demonstrated our responsibility by undertaking major air transport missions.

Successfully completing the task of air transport for the Beijing Winter Olympics and Paralympics

During the 2022 Beijing Winter Olympics and Paralympics, Air China adhered to the bottom line of "safe operation", and successfully achieved the goal of "safety, quality service, and smooth operation". There were 38 aircraft deployed with a total of 203 flights, 2,892 flight crews and other 17,794 personnels served during the Winter Olympics and Paralympics.

Guaranteeing the transport of delegates for the 20th CPC National Congress with high standards

From October 13 to 25, Air China organized flight transport according to the general requirements of the Civil Aviation Administration and our special plan, achieving the goal of "safety, quality service and smooth operation". During the congress, Air China carried out totally 31 inbound and outbound flights for the delegates.

Ensuring the smooth transportation of the fifth China International Import Expo

On November 5, the fifth China International Import Expo opened grandly. Air China made a careful deployment to provide high-quality transport service for the Expo.

Operations on the Tibet Plateau

On March 1, Air China Flight CA4403 carrying 206 passengers safely landed at Gongga Airport in Lhasa, which is located 3,570 meters above sea level. This marked the 57th anniversary of Air China's Chengdu-Lhasa route, which served as the golden air bridge on the "roof of the world", the Tibetan Plateau. Over the past 57 years, Air China has successfully operated 107,900 flights on this route, transporting 13.95 million passengers, and 307,000 tonnes of cargo and mail. We also completed transportation for emergency rescue, disaster relief, and major transport tasks many times, making positive contributions to the economic development, reform, prosperity, and stability of the Tibet Autonomous Region.

6.6.2 Bringing Warmth to Communities

Guaranteeing for children with congenital heart disease to seek medical treatment

In August, Air China worked closely with the Chinese Red Cross Foundation and the paired-up assistance team of the Ministry of Finance to successfully transport a total of 100 children with congenital heart disease and their families from Tibet, Guizhou, and Yunnan to Zhengzhou and Beijing for treatment respectively. The departments of Air China coordinated the air and ground operations, providing meticulous and thoughtful service to the children and their families.

children and their families.

Guaranteeing injured passengers to return to China for treatment

In September, an employee of a Chinese company in Jakarta accidentally cut off his wrist during a production operation and was in urgent need of treatment. The Southwest Branch of Air China, together with the Jakarta Business Department, as well as border defense, customs and relevant departments provided the necessary support and assistance, ultimately the patient received the medical treatment in time.

Supporting the earthquake relief work

On September 5, a magnitude 6.8 earthquake struck Luding County in the Ganzi Tibetan Autonomous Region of Sichuan Province, causing significant casualties and property damage. To support the earthquake relief and post-disaster reconstruction in the area, the Company donated RMB 5 million.

Appendix

Outlook for 2023

Looking ahead to 2023, our focus will be on seeking progress while maintaining stability, and implementing the new development concept completely, accurately and comprehensively. We will serve and integrate into the new development pattern, with a strong emphasis on promoting high-quality development. We will also prioritize efforts in critical areas such as safety production, service quality, low-carbon development, and deepening of reforms. We will actively assume social responsibility, take steps towards becoming a world-class air transport enterprise at a faster speed. Through these efforts, we hope to make contributions to build a modern socialist country in all aspects.

Focusing on safety production. As safety is a prerequisite for development, we should elevate our political stance and steadfastly execute the aviation safety plan during the 14th Five-Year Plan period. We will optimize the safety management system, strengthen the safety management technology, and improve our risk identification and response capability. We will strictly ensure the fulfillment of safety responsibility, and resolutely safeguard the bottom line of safety.

Enhancing aviation service quality. With the aim of creating world-class products and service, we will establish a science-based service standard system and create more innovative and attractive service and products to cater to the travel needs of our passengers. We will put in place an unblocked and efficient service information system, and promote the high-quality development of Air China's service.

Promoting green and low-carbon development. We will actively strive for the "dual carbon" targets, promote energy conservation and environmental management activities orderly, accelerate the green transition of development methods, and take solid steps toward green, circular, and low-carbon development.

Continuously deepening reforms. We will give full play to the functions of all governance entities and work to make the governance mechanism more mature and effective. We will enhance the market-oriented operation and management mechanism, establish a collaborative operation mechanism for legal affairs, risks, internal control, and compliance management, and develop into a world-class enterprise with top-notch governance.

Furthering digital transformation. We will continue to promote digitalization-related initiatives, strengthen our top-level design, and optimize our working mechanisms. We will ensure the smooth flow of business, information and data, work to empower business development with information technology, and promote the value-based application of data, achieving high-quality development of the Company.

Table of Major Indicators^[9]

Indicators	2020	2021	2022
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Total assets (RMB million)	284,071	298,415	295,011
Total actual tax paid during this year (RMB million)	2,905	3,339	3,223
Number of registered aircraft (unit)	707	746	762
Average aircraft age (years)	7.74	8.23	8.59
Safe flight hours (1,000 hours)	1,553.0	1,590.2	1,031.8
RTK (million tonnes kilometres)	13,285	13,599	8,740
Passenger carried (million passengers)	69	69	39
Cargo and mail carried (1,000 tonnes)	1,113.7	1,186.7	844.1
Purchase from the five largest suppliers (RMB million)	17,705	17,852	24,598
Passengers' overall satisfaction (points)	83.0	84.7	87.5
Premium passengers' overall satisfaction (points)	82.1	85.2	87.6
Ground service satisfaction (points)	81.5	83.2	84.9
Ticket service satisfaction (points)	86.2	88.3	89.8
Cabin service satisfaction (points)	81.4	83.5	85.7
International baggage error rate (pieces/1000 person-times)	1.31	1.76	1.56
Domestic baggage error rate (pieces/1000 person times)	0.26	0.2	0.2
Total number of passenger complaint cases from all channels (cases)	12,401	15,793	14,787
Passenger complaint handling rate (%)	100	100	100
Flight on-time performance (%)	89.15	88.96	95.45
Flight execution rate (%)	98.90	99.03	99.2
Total energy consumption (1,000 tonnes standard coal)	6,967	7,151	4,631
Aviation fuel consumption (1,000 tonnes)	4,693	4,813	3,102
Power consumption (MWh)	184,219.9	214,229.6	227,952.3
Gasoline consumption (tonnes)	2,367.5	2,336.6	1,708.8
Diesel consumption (tonnes)	5,972.1	5,565.4	3,945.5
Natural gas consumption (1,000 m ³)	13,554	15,100	16,105
Thermal power (MKJ)	258,610.4	311,688.4	251,909.3
Other energy consumption (tonnes standard coal)	1.5	0.6	6.4
Fuel consumption intensity (kg/ton-km)	0.356	0.357	0.358
CO ₂ emissions (1,000 tonnes)	15,044	15,442	10,053
CO ₂ emission intensity (g/tonne-km)	1,121.2	1,124.7	1,126.5

Total hazardous waste emissions (tonnes)	799.9	1,089.1	1,112.4
Water consumption in the offices (1,000 tonnes)	4,399	4,905	4,531
Water consumption intensity in the offices (tonnes/person)	49	56	52
Environmental protection investment (RMB1,000)	204,756	467,798	244,159
Number of employees on the post (persons)	89,373	88,395	87,190
Labour contract signing rate (%)	100	100	100
Proportion of employees guaranteed by collective bargaining agreements (%)	100	100	100
Social insurance coverage (%)	100	100	100
Work-related deaths (persons)	1	0	1
Proportion of employees who died due to work (%)	0.001	0	0.001

HKEX ESG Indicator Index

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Governance Structure		
	A disclosure of the board's oversight of ESG issues;	P4
	The board's ESG management approach and strategy, including the process used to evaluate, prioritise and manage material ESG-related issues (including risks to the issuer's businesses); and	P4
	How the board reviews progress made against ESG-related goals and targets with an explanation of how they relate to the issuer's businesses.	P4
Reporting Boundary		
	A narrative explaining the reporting boundaries of the ESG report and describing the process used to identify which entities or operations are included in the ESG report. If there is a change in the scope, the issuer should explain the difference and reason for the change.	P1
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A1.2	Direct (Scope 1) and energy indirect (Scope 2) greenhouse gas emissions (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	P37
A1.3	Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	P40

A1.4	Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	P39 Non-hazardous waste statistics only include domestic kitchen waste.
A1.5	Description of emissions target(s) set and steps taken to achieve them.	P38-P41
A1.6	Description of how hazardous and non-hazardous wastes are handled, and a description of reduction target(s) set and steps taken to achieve them.	P39-P41
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A2.3	Description of energy use efficiency target(s) set and steps taken to achieve them.	P41-42、 P43
A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency target(s) set and steps taken to achieve them.	P42
A2.5	Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.	Not applicable. Air China's business does not involve manufacturing.
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B5.3	Description of practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored.	P49-P50
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B6.2	Number of products and service related complaints received and how they are dealt with.	P48
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Major Laws, Regulations and Corporate Policies

ESG Indicator	Applicable Laws and Regulations	Corporate Policies
A1 Emissions	<p><i>Law of the People's Republic of China on the Prevention and Control of Air Pollution</i></p> <p><i>Law of the People's Republic of China on the Prevention and Control Noise Pollution</i></p> <p><i>Law of the People's Republic of China on the Prevention and Control of Water Pollution</i></p> <p><i>Law of the People's Republic of China on the Prevention and Control of Environment Pollution Caused by Solid Wastes</i></p> <p><i>Integrated Emission Standard of Air Pollutants</i></p> <p><i>Standard for Pollution Control on the Municipal Solid Waste Incineration</i></p> <p><i>Integrated Emission Standard of Water Pollutants</i></p> <p><i>Regulation on Urban Drainage and Sewage Treatment</i></p> <p><i>Technical Policy on the Prevention and Control of Pollution Caused by Hazardous Waste</i></p> <p><i>Provisions on the Administration of Urban Construction Garbage</i></p>	<p><i>Wastewater Discharge Management Procedures</i></p> <p><i>Exhaust Emissions Management Procedures</i></p> <p><i>Noise Emissions Management Procedures</i></p> <p><i>Solid Waste Management Procedures</i></p> <p><i>Oils and Chemicals Management Procedures</i></p> <p><i>Carbon Emissions Management Implementation Rules</i></p> <p><i>Waste Disposal Management Procedures</i></p> <p><i>Special Emergency Response Plan for Hazardous Waste Accidents Notice on Promoting Plastic Pollution Control in Offices</i></p> <p><i>Environmental Standard of Aircraft Noise around the Airport</i></p>
A2 Use of Resources	<p><i>Water Law of the People's Republic of China</i></p> <p><i>Energy Conservation Law of the People's Republic of China</i></p> <p><i>Measures for the Administration of Energy Conservation of Major Energy-Consuming Entities</i></p>	<p><i>Water Use Management Regulations</i></p> <p><i>Energy Conservation and Emission Reduction Management Manual</i></p>
A3 Environment and Natural Resources	<p><i>Environmental Protection Law of the People's Republic of China</i></p> <p><i>Law of the People's Republic of China on Environmental Impact Assessment</i></p> <p><i>Law of the People's Republic of China on Water and Soil Conservation</i></p>	<p><i>Air China's Environmental Management Manual</i></p> <p><i>Special Emergency Response Plan for Environmental Emergencies</i></p> <p><i>Special Emergency Response Plan for Water Pollution Accidents</i></p> <p><i>Special Emergency Response Plan for Air Pollution Accidents</i></p> <p><i>Special Emergency Response Plan for Hazardous Waste Accidents</i></p> <p><i>Special Emergency Response Plan for Radiation Accidents</i></p> <p><i>Energy Conservation and Environmental Protection Responsibility Letters</i></p>

		<i>responsibility letters</i>
A4 Climate Change	<p><i>The 14th Five-Year Special Plan for Green Development</i></p> <p><i>The 14 Five-Year Plan</i></p> <p><i>China's Policies and Actions for Addressing Climate Change (2022)</i></p> <p><i>Working Guidance for Carbon Dioxide Peaking and Carbon Neutrality in Full and Faithful Implementation of the New Development Philosophy</i></p> <p><i>Notice by the State Council of the Action Plan for Carbon Dioxide Peaking Before 2030</i></p>	<p><i>Three-Year Action Plan for Winning the Blue Sky Defence War</i></p> <p><i>Special Action for Plastic Pollution Control (2021-2025)</i></p> <p><i>The 14th Five-Year Plan for Green Development</i></p> <p><i>Administrative Measures for Energy Conservation and Ecological Environmental Protection</i></p> <p><i>Detailed Implementation Rules for Energy Conservation and Environmental Protection Education and Training</i></p> <p><i>Detailed Implementation Rules for the Management of Special Funds for Energy Conservation and Ecological Environmental Protection Conservation</i></p> <p><i>Emission Reduction and Ecological Environmental Protection</i></p> <p><i>Measures for Assessment of Energy Conservation and Ecological Environmental Protection and Relevant Rewards and Punishments</i></p> <p><i>Action Plan for Peaking Carbon Emissions</i></p> <p><i>Air China's Work Plan for Green Development in 2022</i></p>
B1 Employment	<p><i>Labour Law of the People's Republic of China</i></p> <p><i>Labour Contract Law of the People's Republic of China</i></p> <p><i>Employment Promotion Law of the People's Republic of China</i></p>	<p><i>Administrative Regulations on Employee Recruitment</i></p> <p><i>Collective Contract</i></p> <p><i>Special Collective Contract for the Protection of Female Employees' Rights and Interests</i></p> <p><i>Administration Regulations on the Labor Contract System</i></p> <p><i>Employee Post</i></p> <p><i>Performance Management Measures</i></p>
B2 Health and Safety	<p><i>Labour Law of the People's Republic of China</i></p> <p><i>Law of the People's Republic of China on the Prevention and Control of Occupational Diseases</i></p> <p><i>Civil Aviation Law of the People's Republic of China</i></p> <p><i>Work Safety Law of the People's Republic of China</i></p> <p><i>Emergency Response Law of the People's Republic of China</i></p> <p><i>Anti-Terrorism Law of the People's Republic of China</i></p> <p><i>Fire Protection Law of the People's Republic of China</i></p>	<p><i>Special Collective Contract on Occupational Safety and Health</i></p> <p><i>Occupational Health and Safety Management Manual</i></p> <p><i>Management Regulations on Labor Protection Supplies</i></p> <p><i>Flight Inspector Workbook</i></p> <p><i>Flight Instructor's Manual</i></p> <p><i>Management Regulations on Occupational Disease Prevention and Control</i></p>
B3 Development and Training		<p><i>Training Management Manual</i></p> <p><i>Guidelines on Talent Work</i></p>
B4 Labour	<p><i>Labour Law of the People's Republic of China</i></p>	<p><i>Employee Code of Conduct</i></p> <p><i>Punishment Regulations for Violation of Labour Discipline</i></p>

Standards	<p><i>Labour Contract Law of the People's Republic of China</i></p> <p><i>Employment Promotion Law of the People's Republic of China</i></p>	<p><i>Regulations on Medical Period and Treatment for Employees</i></p> <p><i>Regulations on Attendance Management</i></p> <p><i>Regulations on Internship and Employment Probation Management</i></p>
B5 Supply Chain Management	<p><i>Bidding Law of the People's Republic of China</i></p> <p><i>Regulations on the Implementation of the Bidding Law of the People's Republic of China</i></p>	<p><i>Procurement Management Regulations</i></p> <p><i>Procurement System Document Management Regulations</i></p> <p><i>Procurement Plan Management Regulations</i></p> <p><i>Standard Procurement Management Regulations</i></p> <p><i>Supplier Management Regulations</i></p> <p><i>Emergency Procurement Management Regulations</i></p> <p><i>Procurement Project Documents and Materials Filing Management Regulations</i></p> <p><i>Procurement Business Inspection Management Regulations</i></p> <p><i>Procurement Review Management Regulations</i></p> <p><i>Procurement Management Platform Operation Management Regulations (Interim)</i></p> <p><i>Measures for the Management of Suppliers with Bad Behaviors (Interim), etc.</i></p> <p><i>Supplier Self-Assessment Questionnaire on the Compliance with Social Standards</i></p> <p><i>Small Amount Procurement Code of Practice (Interim)t</i></p>
B6 Product Responsibility	<p><i>Civil Aviation Law of the People's Republic of China</i></p> <p><i>Regulations on the Operation Certification of Large Aircraft Public Air Transport Carriers</i></p> <p><i>Civil Aircraft Pilot Certification Rules</i></p> <p><i>Several Policies and Measures on Controlling the Total Operational Volume Adjusting the Flight Structure and Improving the Flight Punctuality Rate</i></p> <p><i>Cyber Security Law of the People's Republic of China</i></p> <p><i>Personal Information Protection Law of the People's Republic of China</i></p> <p><i>Key Information Infrastructure Security Protection Regulations</i></p> <p><i>General Data Protection Regulation (GDPR)</i></p> <p><i>Guiding Opinions on Promoting High-quality Development of Intellectual Property Work of Central Enterprises</i></p> <p><i>Regulations on the Administration of Public Air Transport Passenger Service</i></p>	<p><i>Operation Manual</i></p> <p><i>Aviation Safety Management Manual</i></p> <p><i>Pilot Training Outline</i></p> <p><i>Flight Training Management Manual</i></p> <p><i>Dangerous Goods Transportation Safety Management Manual</i></p> <p><i>Maintenance Engineering Management Manual</i></p> <p><i>Emergency Response Manual</i></p> <p><i>Response Management Procedures for Safety Emergencies (for Trial Implementation)</i></p> <p><i>Service Quality Management Manual</i></p> <p><i>Special Passenger Service Standards</i></p> <p><i>Passenger Personal Information Management Regulations (Provisional)</i></p> <p><i>General Conditions of Passenger Baggage Transportation</i></p> <p><i>Digital Transformation Action Plan (2022-2025)</i></p> <p><i>Special Implementation Plan for the Digital Transformation Action Plan</i></p> <p><i>Regulations on Data Management</i></p>

	<p><i>Guidelines for the Construction of a Quality Management System for Public Air Transport Passenger Service</i></p>	<p><i>Regulations on the Management of Legal Affairs</i></p> <p><i>Measures on the Management of Intellectual Property Rights</i></p>
<p>B7</p> <p>Anti-corruption</p>	<p><i>Criminal Law of the People's Republic of China</i></p> <p><i>Company Law of the People's Republic of China</i></p> <p><i>Anti-Money Laundering Law of the People's Republic of China</i></p> <p><i>Anti-Unfair Competition Law of the People's Republic of China</i></p> <p><i>Interim Provisions on Prohibition of Commercial Bribery</i></p> <p><i>Anti-Monopoly Law of the People's Republic of China</i></p> <p><i>Bidding Law of the People's Republic of China</i></p> <p><i>Surveillance Law of the People's Republic of China</i></p>	<p><i>Compliance Management Regulations</i></p> <p><i>Compliance Code of Conduct</i></p> <p><i>Management Measures for Overseas Compliance</i></p> <p><i>Overseas Compliance Training Manual (Chinese and English versions)</i></p> <p><i>Management Measures for Audit and Rectification Tracking</i></p> <p><i>Anti-commercial Bribery Compliance Manual (2022 Edition)</i></p> <p><i>List of Enterprises Prohibited from Transactions (2022)</i></p>
<p>B8</p> <p>Community Investment</p>	<p><i>Charity Law of the People's Republic of China</i></p>	<p><i>Administrative Measures for External Donations</i></p> <p><i>Winter Olympics Flight Operation Guarantee Work Plan</i></p> <p><i>Implementation Opinions on Practicing Targeted Assistance Work</i></p> <p><i>Articles of Association of Chinese Youth Volunteers Association</i></p> <p><i>Regulations on Youth Volunteer Service</i></p> <p><i>Administrative Measures for Volunteer Teaching Program of "Air China Blue Sky Classroom"</i></p> <p><i>"Air China Blue Sky Classroom" Volunteer Teaching Plan (2021-2023)"</i></p>

Third-Party Assurance



ASSURANCE STATEMENT

SGS-CSTC'S REPORT ON SOCIAL RESPONSIBILITY MANAGEMENT IN THE CORPORATE SOCIAL RESPONSIBILITY REPORT OF AIR CHINA LIMITED FOR 2022

NATURE AND SCOPE OF THE ASSURANCE/VERIFICATION

SGS-CSTC was commissioned by the Air China Limited (hereafter as "Air China") to conduct an independent assurance of the Chinese version of Air China's Corporate Social Responsibility Report for 2022 (hereinafter called "the Report").

INTENDED USERS OF THIS ASSURANCE STATEMENT

This Assurance Statement is provided with the intention of informing all Air China's Stakeholders.

RESPONSIBILITIES

The information in the Report and its presentation are the responsibility of the directors and the management of Air China.

Our responsibility is to express an opinion on the text, data, graphs and statements within the scope of verification with the intention to inform all Air China's stakeholders.

ASSURANCE STANDARDS, TYPE AND LEVEL OF ASSURANCE

The SGS ESG & Sustainability Report Assurance protocols used to conduct assurance are based upon internationally recognized assurance guidance and standards, which including

- The principles of reporting process contained within the Global Reporting Initiative Sustainability Reporting Standards (GRI Standards) as:
 - GRI 1: Foundation 2021, for report quality
 - GRI 2: General Disclosure 2021, for organization's reporting practices and other organizational detail
 - GRI 3: Material Topics 2021, for organization's process of determining material topics, its list of material topics and how to manages each topic
- and the guidance on levels of assurance contained within the AA1000 series of standards.

The assurance of the Report has been conducted according to the following Assurance Standards:

- SGS ESG & SRA verification regulations (Refer to GRI Principles and AA1000 Guides)

The Assurance has been conducted at a moderate (limited) level of scrutiny.

SCOPE OF ASSURANCE AND REPORTING CRITERIA

The scope of the assurance included evaluation of quality, accuracy and reliability of specified performance information as detailed below, and evaluation of adherence to the following reporting criteria:

Reporting Criteria	
1	The <Environmental, Social and Governance Reporting Guide> by HKEX
2	GRI Standards 2021(Reference)
3	Shanghai Stock Exchange Self-Regulatory Guidelines for Listed Companies on the Shanghai Stock Exchange No. 1 - Standardized Operation

ASSURANCE METHODOLOGY

The assurance comprised a combination of pre-assurance research, on-site interviews with relevant employees including the Air China head-office, which is located in the 30 Tianzhu Road, Airport Industrial Zone, Shunyi District, Beijing, P.R. China. Documentations and records were reviewed and validated with relevant employees of the other subsidiaries as necessary.

LIMITATIONS AND MITIGATION

The financial data drawn directly from the third independently audited has not been checked back to source as part of this assurance process.

The on-site verification was only at the Air China head-office, relevant data and information traceability were only focused on the group level.

This verification only conducted interviews with staff of Air China and access to relevant materials, and external stakeholders were not

involved.

STATEMENT OF INDEPENDENCE AND COMPETENCE

SGS is the world's leading inspection, verification, testing and certification company, SGS is recognized as the global benchmark for quality and integrity. SGS is a global leader in inspection, testing and verification, operating in more than 140 countries/ areas, providing services including management systems and service certification; quality, environmental, social and ethical audits and training environmental, social and sustainability report assurance. SGS affirms that it is a completely independent organization from Air China, and that there is no bias or conflict of interest against Air China, its affiliates and stakeholders.

The assurance team was assembled based on their knowledge, experience and qualifications for this assignment, and comprised of CCAA registered ISO 9001, ISO 14001 and ISO 45001 auditor, SGS recognized ISO37001 and CSR/ESG lead auditor.

VERIFICATION/ASSURANCE OPINION

On the basis of the methodology described and the verification work performed, nothing has come to our attention that causes us to believe that the specified performance information in The Report of Air China included in the scope of assurance is not fairly stated and has not been prepared, in all material respects, in accordance with the reporting criteria.

THE CONCLUSIONS, FINDINGS AND RECOMMENDATIONS

In our opinion, The Report of Air China for 2022 is presented in accordance with the Introduction and Mandatory Disclosure Requirements of the < Environmental, Social and Governance Reporting Guide > in the appendix 27 of the < Rules Governing the Listing of Securities on the HKEX >.

REPORT PRICIPLES

MATERIALITY

The substantive research and the analysis of stakeholders' concerns had been disclosed in The Report, the impact of the environment, society and governance concerned by relevant parties is reported on a key basis through materiality analysis, which matched with the principle of materiality.

QUANTITATIVE

Air China had provided statistics and analysis on key quantitative performance indicators and outlined their impact and purpose in the Report. The report compared data from most of key performance projects over the past three years to assist stakeholders in evaluating their management performance better.

BALANCE

The Report basically matched with the principle of balance, the environment, social and governance subjects had been disclosed truthfully and impartially.

CONSISTENCY

A consistent methodology for disclosing relevant subject had been used by Air China, including statistical methodology and caliber for key quantitative performance indicators, some appropriate notes and explanations had been provided in the Report, so that the stakeholders can make clear comparisons.

MANAGEMENT APPROACH

The Report had disclosed the management approach of the applicable subject in the < Environmental, Social and Governance Reporting Guide >.

GENERAL DISCLOSURE

The Air China's disclosure of applicable subject in the Report matches with the requirements of general disclosure of < Environmental, Social and Governance Reporting Guide >.

KEY PERFORMANCE INDICATOR DISCLOSURE

Air China had disclosed the key performance indicators about the economic, environmental, and social subject which applicable to the < Environmental, Social and Governance Reporting Guide >.

DISCOVERY AND RECOMMENDATIONS

The good practices, findings and recommendations for continuous improvement were presented in the SGS internal management report and were submitted to Air China.

Signed:

For and on behalf of SGS-CSTC

David Xin Director

Country Headquarter 16/F Century Yuhui Mansion, No.73, Fucheng Road, Beijing, China

Mar. 28th, 2023

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Feedback Collection

Dear reader,

Thanks for reading the 2022 Social Responsibility Report of Air China Limited, which is the fifteenth social responsibility report published by Air China. You are welcomed to provide us with your comments and suggestions on this report for consideration and adoption, enabling us to make continuous improvement in future report preparation and to improve our corporate social responsibility management and practice. We look forward to your valuable comments and suggestions.

1. Do you think the overall report is satisfactory?
 Excellent Good Fair Poor
2. Did the report provide all information you are concerned about?
 Excellent Good Fair Poor
3. Do you think the report has faithfully reflected the performance of Air China in respect of creating economic value, social value and environmental value and fulfilling social responsibility?
 Excellent Good Fair Poor
4. Can you access the information you are concerned about in a convenient way?
 Excellent Good Fair Poor
5. Do you think the information disclosed in the report is accurate, clear and complete?
 Excellent Good Fair Poor
6. Do you have any comment or suggestion to our social responsibility work and social responsibility report in the future?

The safety training data covers Air China, Beijing Airlines, Dalian Airlines and Inner Mongolia Airlines.

^[2] 1. GHG emissions data of Air China and its subsidiaries covers those from Air China, Shenzhen Airlines, Kunming Airlines, Dalian Airlines, Inner Mongolia Airlines, Beijing Airlines, and Ameco.

2. The *Interim Measures for the Management of Carbon Dioxide Emissions Monitoring, Reporting and Verification of Civil Aviation Flight Activities* (CAAC Regulations [2018] No. 3) was adopted as the aviation fuel calculation standard.

3. The *Beijing Carbon Emission Unit Carbon Dioxide Emissions Accounting and Reporting Guidelines* released by the Beijing Municipal Ecology and Environment Bureau was used as the ground energy calculation standard.

4. Scope I is CO₂ emissions from the burning of fossil fuels, and Scope II is CO₂ emissions from the use of electricity and heat.

[3] Domestic waste data does not include kitchen waste derived from in-flight meals.

[4] The reported hazardous waste emissions relates to Ameco's hazardous waste emissions only.

[5] APU refers to the Auxiliary Power Unit.

[6] The flight regularity data covers that from Air China, Beijing Airlines, Dalian Airlines and Inner Mongolia Airlines.

[7] Data relating to passenger complaints, satisfaction and luggage loss rates cover those from Air China, Beijing Airlines, Dalian Airlines and Inner Mongolia Airlines.

[8] Employee training data in 2022 covers Air China and its major subsidiaries of Beijing Airlines, Dalian Airlines and Inner Mongolia Airlines.

[9] 1. The financial, operational, and employee data of the past three years are consistent with those of the annual report.

2. The service data comes from Air China, Dalian Airlines, Beijing Airlines and Inner Mongolia Airlines. The Total number of passenger complaint cases from all channels includes complaints received by the Company and transferred by the CAAC.

3. Energy consumption data includes greenhouse gas emissions from Air China and its subsidiaries, including Air China, Shenzhen Airlines, Kunming Airlines, Dalian Airlines, Inner Mongolia Airlines, Beijing Airlines, and Ameco. Hazardous waste emissions only involve those from Ameco.

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