



江蘇寧滬高速公路股份有限公司
JIANGSU EXPRESSWAY COMPANY LIMITED

Jiangsu Expressway Company Limited
2018 Social Responsibility Report

The Road towards a Better Life



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Message from the Chairman



Guo dejun

Secretary of the Party committee and Chairman
Jiangsu Expressway Company Limited

Smooth roads lead to all corners of the world and benefit all people.

In 2018, taking compliance operation and economic benefits as core missions, we strove to ensure smooth traffic and actively responded to the challenges brought by changes in internal and external environment, thus having achieved a leading position in road maintenance, maintenance management, business performance, transformation and window services. By doing so, we also contributed to promoting the sustainable development of the economic and social environment with partners from all walks of life. In 2019, we will continue our pragmatic, aggressive and prudent working style and maintain our leading edges by lowering costs through technological innovation, boosting efficiency by management innovation, creating more growth space by business model innovation, and pursuing talent-driven sustainable development. We will make breakthrough progress in the main business development, technology for smooth traffic, financial investment, and business management, so as to reward our shareholders with excellent performance and give back to the society with quality services.

Innovation creates new development prospects.

Constant innovation is the core momentum for a company's high-quality development. We have pursued innovation-driven growth, and deepened reform and transformation by our optimizing business structure and enhancing our capabilities in toll roads & bridges management and capital operation, to support the building of an integrated transportation system in Jiangsu. In addition, we strengthened IT application, and adopted new technologies such as the Internet of Things and big data to enhance operation and management efficiency in the era of "Internet plus". Taking the lead in exploring ways to build and run intelligent expressways, we actively promoted the application of cloud computing and mobile payment to enhance the capacity of the road network and pooled our wisdom to build the "Road of the Future" and contribute to social progress.

Safety builds a reliable firewall and safety is our top priority.

We constantly proposed new ideas on improving road maintenance. For example, we developed the "Map of Pavement Technologies" and the "Map of Bridge Technologies and Hazards" to support decision-making on road and bridge maintenance. The road quality was improved steadily with maintenance quality indicator (MQI) and pavement quality index (PQI) reaching 95.83 and 94.04, respectively. We also increase our efforts in securing the safety of motorists and passengers by constantly improving our safety management system, optimizing safety facilities and enhancing the safety awareness of all parties involved. All these efforts contribute to build a reliable expressway network for the public.

Smooth traffic foster high-efficient expressway networks.

We are devoted to developing a new pattern to ensure smooth traffic. By studying key technologies on

the capacity of road sections with super high traffic flow, we promoted the "exemplary smooth road sections", the renovation project of Dantu transportation hub and road-broadening project of entrance lanes at service areas. We also improved the response and smooth traffic mechanism for adverse weather conditions such as rain, snow, and typhoon, as well as for holidays and festivals, having achieved the optimal on-site management efficiency and benefits and significantly improved traffic capacity. In terms of hindrance clearance and rescue, we initiatively built a rescue station along main expressways to realize zero-delay emergency response for roads with super high traffic flow. Besides, we continuously improved the "Tripartite Dispatch System for One Road" commanding and dispatching system to enhance collaboration and cooperation efficiency, and effectively improved the capacity of hindrance clearance and smooth traffic.

Green development shows our concerns for nature.

We protect the environment by practicing green development and low-carbon concepts in road operations and managing ecological footprint of our business operations. Through vigorously carrying out comprehensive road renovation projects, we effectively improved road landscaping, and also orderly improved and renovated the landscape of toll stations based on the "five changes for happiness" project. We built low-carbon expressways, actively promoted green maintenance, and enhanced the utilization rate of energy and resources by applying new technologies and green materials, thereby striving to map out a blueprint for building a beautiful, harmonious and eco-friendly homeland.

Shared development gathers happiness and brings harmony.

We always focus on social development needs to meet the aspirations of the people for a better life. Continuously promoting the "3+3" business model transformation in the service areas, we improved services at toll stations and enhanced our quality service to increase the satisfaction of motorists and passengers. We supported the development of our partners and facilitated industrial exchange to seek win-win results with partners. We also care about the career development and life of employees and promote shared development of the Company and our employees. Furthermore, as a state-owned enterprise, we strive to play an exemplary role in contributing to social happiness and harmony by encouraging employees to participate in social welfare activities, such as volunteering, charity events and donations.

Roads lead us to where our hearts go. In 2019, we will continue to implement the guiding principles from the 19th CPC National Congress, further emancipate our minds and forge ahead. Upholding sustainability, we will promote quality development, and join hands with stakeholders to march towards a better life!

About Us

Corporate Profile

Established in August 1992, Jiangsu Expressway Company Limited is the only listed company in the transportation and infrastructure industry of Jiangsu Province. The Company is principally engaged in the investment, construction, operation and management of Shanghai-Nanjing Expressway, and owns or holds shares in a number of toll roads within Jiangsu Province, as well as participating in the development and operation of transport and ancillary services (including refueling, catering, shopping, vehicle repairing, advertising and accommodation) along the toll roads. Currently, the Company speeds up transformation and upgrading to establish a business portfolio covering infrastructure construction, equity investment, and commercial services complex. As at 31 December 2018, the Company had four wholly-owned subsidiaries, three non-wholly-owned subsidiaries and eleven joint-ventures, with total assets amounting to RMB48.163 billion, net assets amounting to approximately RMB29.354 billion and a total of 3,406 employees.



Our mission

To provide access to a better life for the public through better services

Core values

Responsible and effective, shouldering responsibilities, people oriented

Our vision

To become an outstanding modern service company

Corporate spirit

Dedication, Integrity, Cooperation, Excellence

Honors and Awards

Key Performance Data

Performance indicator	Unit	2016	2017	2018
Business revenue	RMB '00 million	92.01	94.56	99.67
Profit	RMB '00 million	34.37	36.84	44.76
Return on investment	RMB/share	0.66	0.71	0.87
The arrival for road network hindrance clearance within 20 minutes	%	97.4	97.1	97.6
Resumption of normal traffic within 1 hour	%	97.8	98	98.8
Satisfaction towards hindrance clearance	%	100	100	100
Pavement Quality Index (PQI)	Score	93.08	93.23	94.04
Maintenance Quality Indicator (MQI)	Score	95.16	95.26	95.83
Density of direct energy consumption	Metric tons of standard coal equivalent/ RMB '00 million	11.30	10.86	5.75
Employee satisfaction	Score	71.37	74.07	74.71

2018 Major Honors and Awards

Honor/Award	Winner	Issuer
2018 Golden Wing Awards-Rankings of Hong Kong Listed Companies under Stock Connect with Best Investment Return	Jiangsu Expressway	Securities Times
2018 Zijin Innovation Award for Chinese A-Share Listed Companies	Jiangsu Expressway	Xinhua Net
Most Potential Company in Outdoor Advertising in Forty Years	Ninghu Investment Company	China Advertising Association
2018 National Five-Star Workplace in Communication Industry	Huaqiao Toll Station	China Association of Communication Enterprise Management, Review Board of Excellent Business Administration Achievements in Communication Industry
2018 Outstanding Quality Control Team in Jiangsu Communication Industry	Huaqiao QC Team	Jiangsu Association of Communications Enterprises
Outstanding Project of 2018 Jiangsu Youth Volunteers "Warming Winter Action" - Serving the Spring Festival Travel Rush	Smooth Travel Volunteering Project	Jiangsu Provincial Committee of the Communist Youth League, Jiangsu Provincial Economic and Information Technology Commission, Department of Public Security of Jiangsu Province, Transportation Department of Jiangsu Province
2018 Outstanding Youth Learning Club in Jiangsu	"Fragrance of Jasmine •Youth Learning Club" of Ningzhen Management Office	Jiangsu Provincial Committee of the Communist Youth League
"Tang Minghua" 'Eight Checks and Three Double-checks' False Certificate Identification and Verification Method" awarded "Top 10 Advanced Working Methods among Staff in Provincial and Ministerial Companies"	Tang Minghua, Jiang Chuan, Sun Lu	Jiangsu Federation of Trade Unions

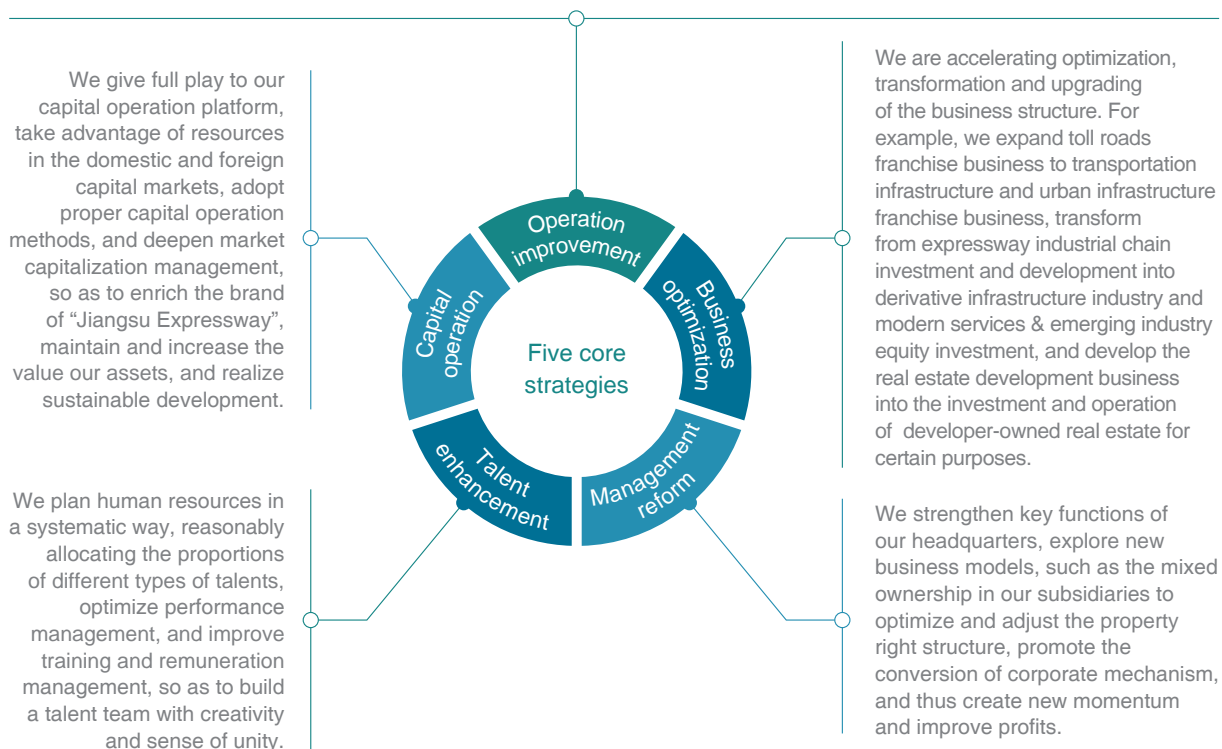
Strategy and Governance

The Company disciplines itself with high-standard business ethics, develops and constantly improves its corporate governance mechanism by strengthening risk management and investor relations management with prudential objectives and a flexible organizational structure, and highlighting Party building, so as to realize sustainable and healthy development.

Corporate Strategy

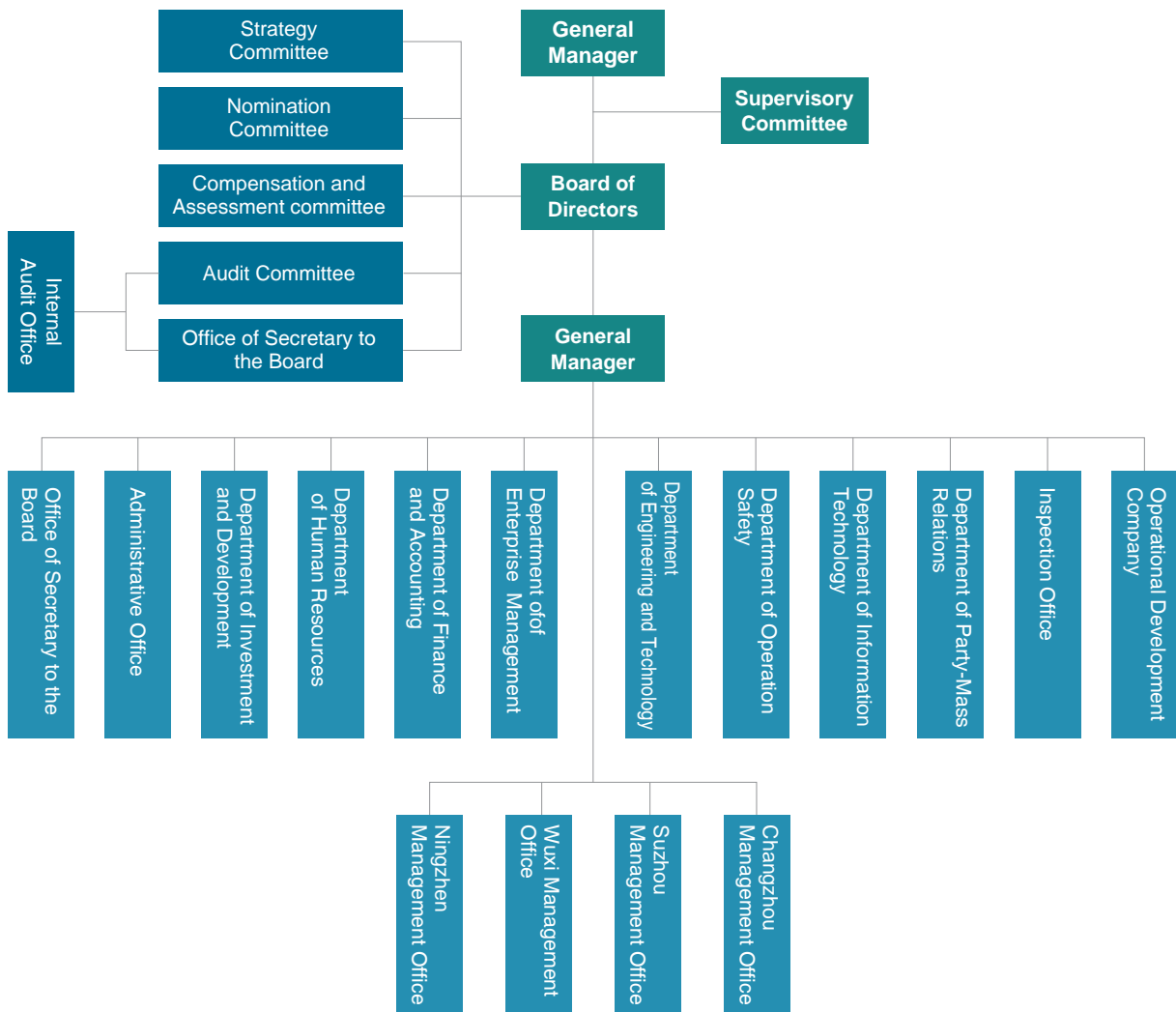
Striving to build itself into a modern company with outstanding reputation and far-reaching influence in the industry, the Company continuously optimizes its business structure and enhances its governance capacity. It seeks an overall improvement in equity investment and the investment and operation of commercial services complex while maintaining its core competitiveness in toll road and bridge operation and management as well as capital operation. During the 13th Five-Year Plan period, the Company sticks to five core strategies—operation improvement, business optimization, capital operation, management reform and talent enhancement, to achieve the long-term, steady and rapid development.

Aiming to fully meet the need of road users, and starting from rebuilding the institutional procedure and promoting informatization, we continuously standardize the operation and management of expressways and apply more technologies to build a modern maintenance management system and improve the capacity of serving the public, strive to being an expressway operation and management company that meets up with world standards, and a benchmark company in China's expressway operation & management industry.



Corporate Governance

The Company strictly complies with listing rules and relevant laws and regulations, continuously promotes the modernization of its corporate governance system and governance capacity by improving the decision-making ability of the Board of Directors (the “Board”) and helping its directors, supervisors and senior management gain more knowledge and better understanding of securities laws and regulations and latest developments of the securities market. Besides, it also strengthens daily prevention and control, and enhances senior management’s executive capability, and governance awareness to improve management efficiency and enhance operation transparency. The Board of Directors makes decisions for the Company with the support of the Strategy Committee, the Nomination Committee, the Audit Committee, the Remuneration and Appraisal Committee and the Office of Secretary to the Board of Directors. In 2018, the Company held three general meetings of shareholders, eleven meetings of the Board of Directors, and eight meetings of the Supervisory Committee, five meetings of the Audit Committee, four meetings of the Strategy Committee, four meetings of the Nomination Committee, and one meeting of the Remuneration and Appraisal Committee.



Corporate Structure



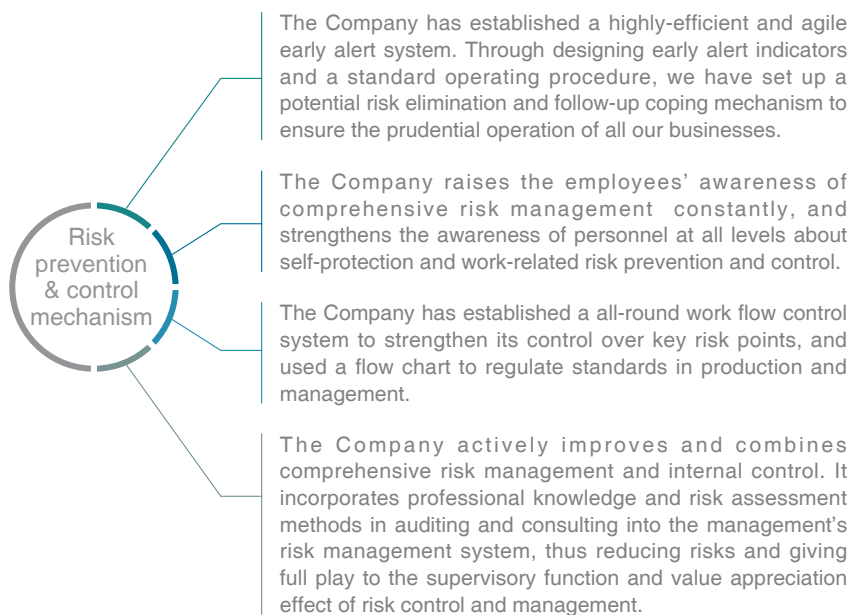
In 2018, the Company newly introduced, revised or improved **14** regulations, and put forward **10** rectifying measures.

Compliance Management

The Company firmly believes that compliant operations are the fundamental guarantee for long-term and healthy development. We continuously improve our compliance management system and legal affairs management regulations, further develop the institutional system by distinguishing “regulations to be abolished, amended, established or maintained”, and compile all currently effective rules and regulations into a handbook, thus providing institutional guarantee for the Company’s compliant operations. In accordance with the requirement of Jiangsu Communications Holdings Co., Ltd.’s “Three Major and One Significant” management and the Company’s “Three Major and One Significant” decision-making system, we also enhance our compliance and governance capacity on an ongoing basis through the work flow improvement of fundamental work for decision-making, standardized management of inside information, and strict control of information disclosure.

Risk Management

The Company has been improving the risk management system on an ongoing basis to build a long-term risk management mechanism that can effectively identify, monitor and control business risks. We also have improved internal control management for specific risk points, and formulated prevention & coping strategies for major risks, to facilitate healthy and sustainable development with improved risk management system. Meanwhile, we earnestly follow the requirements of regulatory authorities and strictly abide by regulations to strengthen everyday prevention and control over insider trading, occupation of funds, and related-party transactions, and prevent non-compliance risks, so as to further enhance self-governance and risk prevention & control capacities.



Anti-corruption Management

The Company continuously improves anti-corruption regulations, and integrates Party building and anti-corruption into all links of corporate governance. We strictly comply with regulations and rules, including *Anti-Corruption and Bribery Law*, *Anti-Money Laundering Law*, *Criminal Law*, *Self-discipline Guidelines of the Communist Party of China*, *Supervision Law of the People's Republic of China*, and *Provisions on the Integrity for Officials of State-Owned Enterprises*. The *Supervision Law of the People's Republic of China* enacted in 2018 provides a strong guarantee for the Company to carry out anti-corruption work in depth and boost corporate governance system and governance capabilities. We also formulated and issued *Jiangsu Expressway Educational Talks Mechanism on Party Building and Anti-corruption*, *Opinions on the Implementation of Strengthening the Development of Integrity Risk Prevention and Control Mechanism (2018)*, and *Interim Opinions on Implementing the Mechanism of Publishing Newly Promoted Officials' Integrity Commitment*, promoted Party building and carried out anti-corruption questioning. All integrity commitments of newly promoted officials were published and archived. Besides, the Company inspects over anti-corruption risks every year, conducts assessment and amends prevention & control measures actively to strengthen the prevention and control over integrity risks and consolidate supervision over grassroots level and major projects, and improves working style on a regular basis.



In 2018, the Company organized **7** training sessions on anti-corruption and professional ethics that covered **1,030** participants.

Investor Relations

The Company is devoted to developing positive two-way interactions with investors. We strictly manage the quality of information disclosure for presenting more transparent, genuine and objective information to investors. We also keep investors informed of our latest developments through multiple channels, such as the "Investor Relations Column" on our official website where our latest information and reports are available for review and download, and ensure adequate communication with investors through general meetings of shareholders, road shows and visits, so as to help them make objective and correct judgments on investments.



In 2018, as per the statutory disclosure requirements and in cases of irregular major events, we issued **55** announcements both at home and abroad, and carried out **9** road shows.

Party Building

The Company ensures full and strict governance over the Party. While upholding the theme of "the CPC flag flying high in the sky" and sticking to "Five New" engines for comprehensively deploying Party building, we set out a clear roadmap for Party building that features "consolidating the foundation in one year, reaching a higher stage in two years, and becoming a pioneer in three years". We have also organized various informative learning activities for Party members, including lectures, field visits, intensified courses and trainings, to upgrade Party building. Through appraising and electing model Party members, pioneering workers and exemplary youth workers, we have improved grassroots Party building and leveraged Party building to steer and secure our reform.

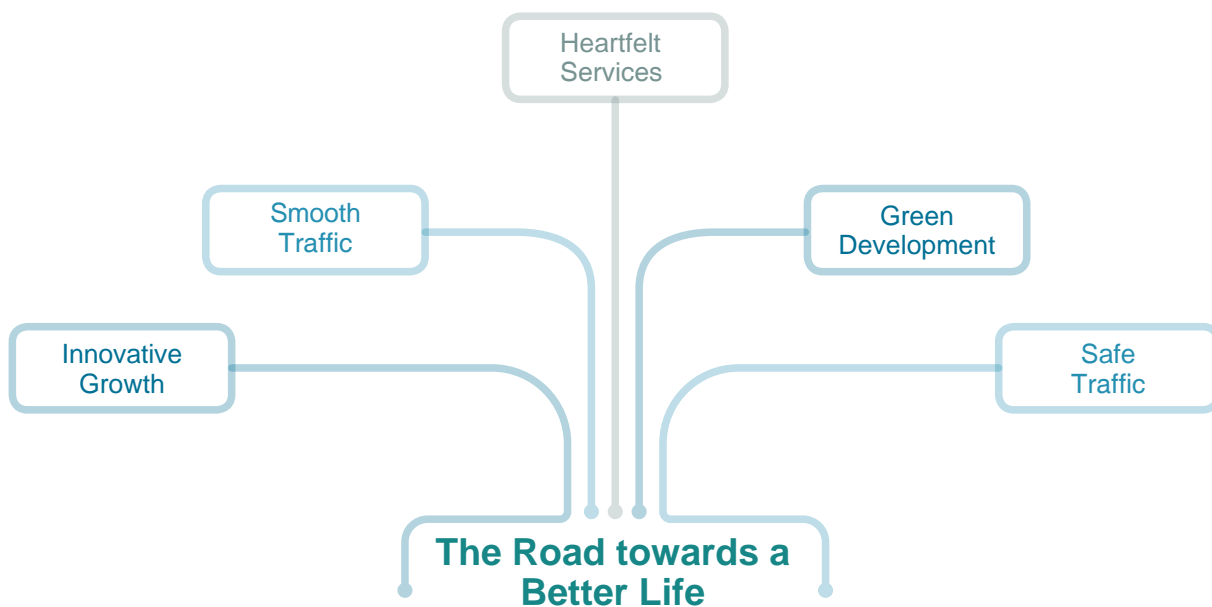
In 2018, the Company organized Party building activities with a total time length of **160** hours, covering **554** participants of Party members.

Social Responsibility Management

The integration of social responsibility objectives into business development, and corporate vision, mission, values and strategies is the only approach for a company to balancing the social and environmental factors in the process of value creation and align its social responsibility objectives with its business objectives. Under the guidance of our corporate mission of “providing access to a better life for the public through better services”, Jiangsu Expressway constantly identifies the relationships between corporate business and social responsibility, and has formed a management and promotion path of social responsibility with unique corporate characteristics.

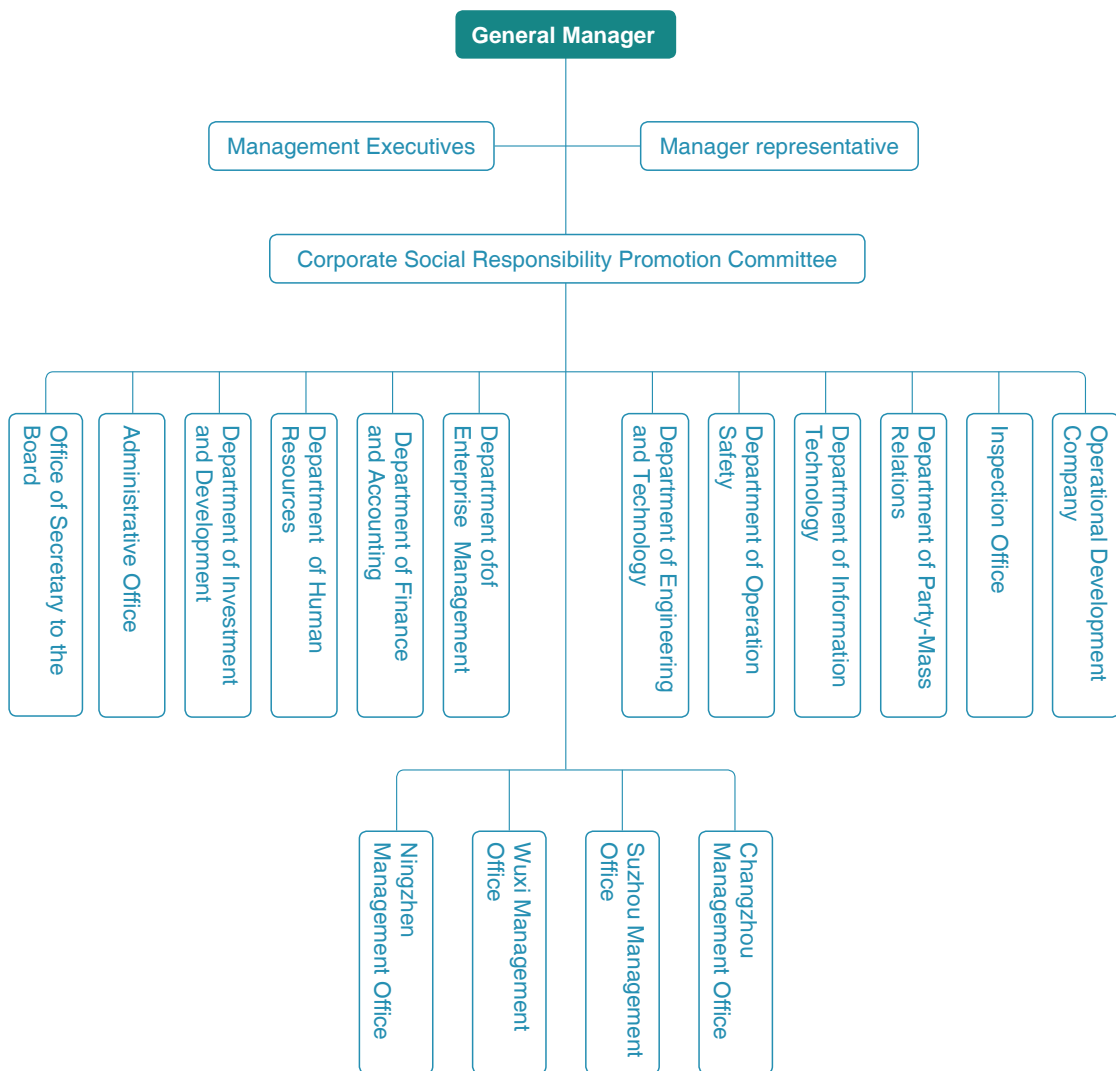
Social Responsibility Philosophy

Meeting public traffic demand and promoting social and economic development is our engraved fundamental responsibility, and contributing to fulfilling people's aspiration for a better life is the ultimate goal of our social responsibility efforts. In 2018, we further clarified the social responsibility philosophy and key areas while building a social responsibility management system. During the promotion meeting of social responsibility management and interviews with our senior leaders, we solicited opinions from employees at all levels on the social responsibility philosophy, and finally developed our social responsibility philosophy as "guarding safety and marching towards the future" and identified five key social responsibility areas.



Social Responsibility Management System

The social responsibility management system can facilitate the Company to comprehensively, systematically and effectively manage the economic and environmental impacts of its decision-making and operation, namely, to maximize the positive impacts, prevent and minimize negative impacts, and continuously improve its social responsibility performance. In 2018, the Company comprehensively developed a social responsibility management system, which clarifies the philosophy and policy of social responsibility, the overall management objectives, organizational structure, index system, management of key topics and the mechanism of performance evaluation and improvement, and also compiled the relevant management content into the *Handbook of Social Responsibility Management*. Based on clear management direction and action objectives, the Company decomposed and implemented the key social responsibility topics to relevant responsible departments to guide the implementation and continuous improvement of specific work related to social responsibility.

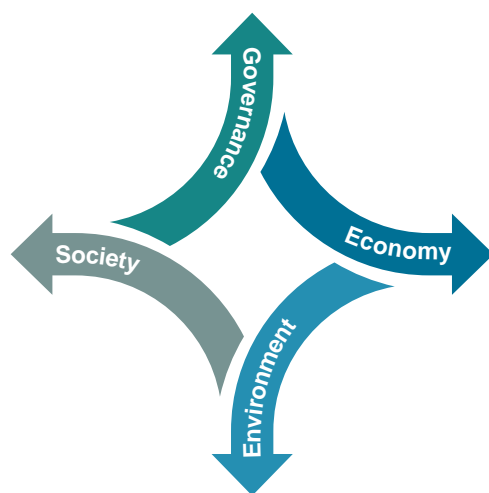


Identification of Material Topics

Identification of material topics is the core and foundation of social responsibility management and disclosure. Since the end of 2017, we have taken the establishment of the social responsibility management system as an opportunity and began the systematic identification of material social responsibility topics. In 2018, we analyzed 23 material topics that are of importance to the Company and stakeholders through preliminary identification, review, prioritization, and validation. Among the material topics, we identified eight key topics by considering the five key areas of social responsibility and analyzing the Company's business advantages as well as the risks and opportunities faced by the Company.

● Regulatory compliance ● Information disclosure and communication ● Risk management ● Informatization

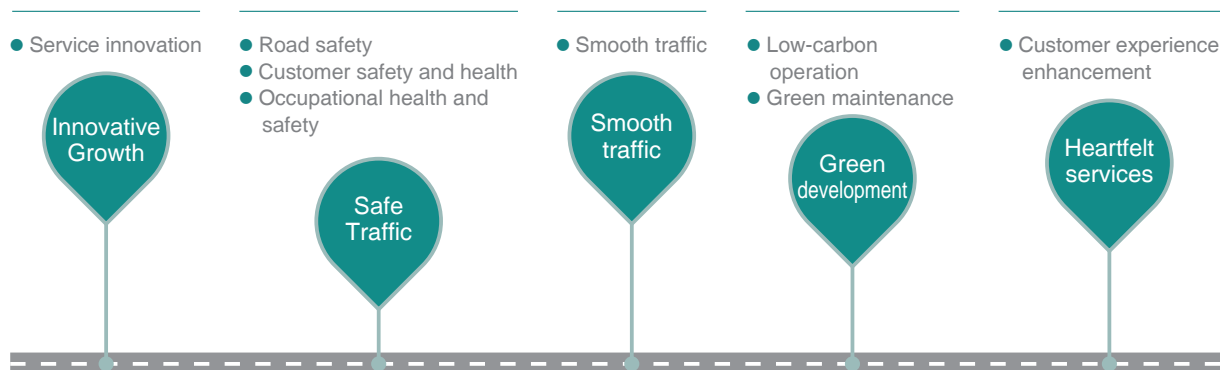
- Partner support
- Customer safety and health
- Labor and employment relations
- Working conditions and labor protection
- Occupational health and safety
- Employee training and development
- Community engagement



- Economic performance
- Reform and transformation
- Road safety
- Smooth traffic
- Road quality
- Service innovation
- Complaints handling and dispute resolution
- Customer experience enhancement

- Green maintenance ● Pollution prevention and treatment ● Low-carbon operation
- Ecological conservation and beautification

Material topics on social responsibility in 2018



Key strategic points of social responsibility

Stakeholder Engagement

The identification and engagement of stakeholders is the basis and prerequisite for the Company's social responsibility management and practice. With stakeholders' engagement, we can further understand and analyze the economic, environmental and social impacts of road operations and improve our management correspondingly. Further, listening and responding to the needs of stakeholders will help build closer partnerships with stakeholders and contribute jointly to sustainable development.

Stakeholders	Major topics	Expectations and demands	Engagement methods
Customers (passengers and motorists)	<ul style="list-style-type: none"> Smooth traffic Quality services Safe traffic Easy access to comprehensive traffic information 	<ul style="list-style-type: none"> Smooth, flat and comfortable roads Diversified service items at service areas Good service and fast passage at toll stations Timely and efficient road rescue and hindrance clearance Timely and complete information disclosure and easy access to information 	<ul style="list-style-type: none"> Feedback on services rendered Field research at the service areas Online surveys Telephone interviews
Local governments and regulatory authorities	<ul style="list-style-type: none"> Economic performance Regulatory compliance Smart transportation Serving socioeconomic development 	<ul style="list-style-type: none"> Value maintenance and appreciation of state-owned assets Serving the government's working plans and socioeconomic development Promoting the development of smart city Compliance and integrity Industry optimization and upgrading Development of smart transportation Industry experience sharing 	<ul style="list-style-type: none"> Reporting and communication Patrolling Instructions Work meetings Institutional documents Annual reports
Jiangsu Communications Holding Co., Ltd	<ul style="list-style-type: none"> Regulatory compliance Risk management Economic performance Reform and transformation Smart transportation 	<ul style="list-style-type: none"> Value maintenance and appreciation of state-owned assets Compliance and integrity Economic performance Sharing experience within Jiangsu Expressway 	<ul style="list-style-type: none"> Reporting and communication Work meetings Annual reports Instructions
Securities regulatory authorities	<ul style="list-style-type: none"> Transparent operation Information disclosure 	<ul style="list-style-type: none"> Compliance with regulations of the stock exchanges Timely and high-quality information disclosure 	<ul style="list-style-type: none"> Institutional documents Reporting and communication Notices and announcements Annual reports
Investors and creditors	<ul style="list-style-type: none"> Return on investment Value maintenance and appreciation Risk prevention 	<ul style="list-style-type: none"> Stable returns and dividends Exploring new profit growth points Reducing investment risks 	<ul style="list-style-type: none"> Board meetings Annual reports Public announcements and road shows Shareholders' meetings Investor surveys
Partners (suppliers, contractors, road administrations, traffic police, etc.)	<ul style="list-style-type: none"> Win-win and mutual benefit Fulfillment of commitments 	<ul style="list-style-type: none"> Maintaining stable cooperative relations Providing with information on road conditions 	<ul style="list-style-type: none"> Contracts and agreements Daily communications
Industry counterparts	<ul style="list-style-type: none"> Industry development 	<ul style="list-style-type: none"> Experience sharing Promoting industry development 	<ul style="list-style-type: none"> Industry conferences Visits and exchanges
Employees	<ul style="list-style-type: none"> Equal employment Career development Occupational health and safety 	<ul style="list-style-type: none"> All-round welfare guarantee Smooth career development paths Diverse opportunities for development Safer and cozier working environment Caring for occupational mental health 	<ul style="list-style-type: none"> Labor contracts Collective contracts Employee Representative Congress Employee satisfaction surveys
Local communities	<ul style="list-style-type: none"> Environmental impact management Low-carbon operation 	<ul style="list-style-type: none"> Lowering the noise on roads Protecting local ecological environment 	<ul style="list-style-type: none"> Visits
The public / media	<ul style="list-style-type: none"> Open and transparent information 	<ul style="list-style-type: none"> Timely disclosure of significant information 	<ul style="list-style-type: none"> Interviews



An aerial photograph showing a complex multi-level highway interchange with several overpasses and ramps. The highway is surrounded by lush green trees and vegetation. In the background, a large body of water, possibly a lake or reservoir, is visible, with a city skyline featuring numerous high-rise apartment buildings in the distance. The sky is clear and blue. A diagonal teal line runs across the right side of the image, separating the photograph from the text area.

Innovative Growth

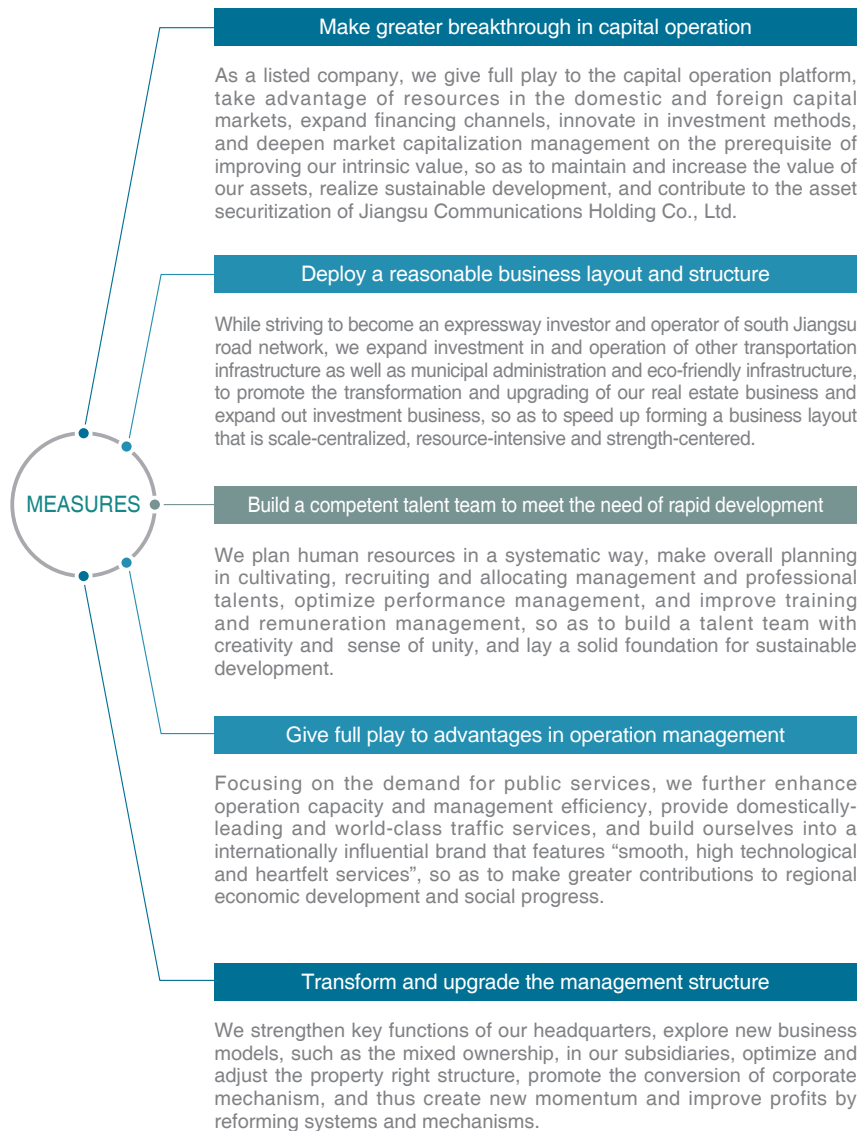
Innovation is the primary force driving the development of a company and determines development principles, direction and landscape of the company. We vigorously carry out innovation-driven development to promote the Company's transformation and upgrading, and improve our toll roads & bridges operation management and capital operation capabilities. By continuously optimizing the business structure, we spare no effort to improve quality and efficiency, and resolve prominent contradictions and development challenges, striving to become a modern company with outstanding reputation and far-reaching influence in the industry.



By the end of 2018,
the Company paid
RMB **13.78** billion
to Jiangsu Provincial
Transportation Engineering
Construction Bureau and
railway authorities for
construction projects.

Reform and Transformation

Following the guiding principle of “acquiring resources from core businesses, developing secondary businesses by using resources, and benefiting core businesses in return”, the Company coordinates all businesses to improve the infrastructure operation and management capability and investment management capability. We also increase the revenue and profit ratios of new businesses to reduce undue dependence on one single business (i.e. toll roads) which hinders our long-term growth, thereby enhancing our risk resistance and sustainable development capacities.



Informatization

The Company makes great efforts to realize high-quality expressway operation and management and better public services by adopting information technologies. To enhance operational efficiency and improve service quality, advanced technologies such as cloud computing, big data, Internet of Things, mobile Internet and artificial intelligence are widely used in business handling systems for toll collection and checking, traffic accident management, emergency rescue management, occupational health and safety management, window services and real-time traffic information management, etc.

While continuously promoting IT application, the Company pays much attention to information security. In compliance with national and provincial rules on the operation and services of electronic toll collection (ETC), we take measures to protect the data and privacy of motorists and passengers. While strengthening data access authority management of the tolling system, we also conduct real-time monitoring over the operating status of the tolling system, dynamic environment status of the data storage center, and the security status of the data transmission network, and timely maintain and repair devices.



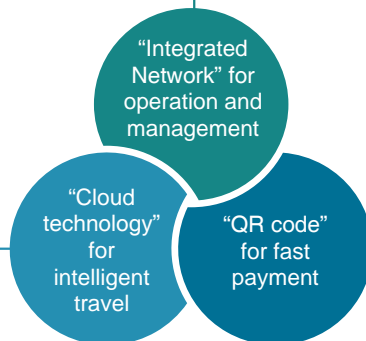
Intelligent Expressways

The rapid development of technologies such as the Internet, big data and cloud computing, strongly supports the construction of intelligent expressways. In response to the trend of intelligent development in the “Internet plus” era, we have successfully adopted the “integrated network” for operation and management, “cloud technology” for intelligent travel, and “QR code” for fast payment, thus building an integrated intelligent transportation system and improving the quality of travel services for the public. By using new technologies, hit and run, toll evasion and other violations could be combated with higher efficiency, and thus the order of expressway operation can be effectively maintained.



Through adopting intelligent information technologies, we establish a Tripartite Dispatch System for One Road, and promote “cloud management” to realize the integration of toll collection, operation guarantee and joint command, and ensure the high efficiency and unity of road network dispatch and command.

We finish cloud deployment of camera monitors, variable message signs and command & dispatch voice calls along main lines of Shanghai-Nanjing Expressway. By allocating the toll collection system onto the “cloud”, we can get real-time images of remote accident scenes, and publish surveillance videos to the public, so that motorists and passengers can better know about the traffic condition.



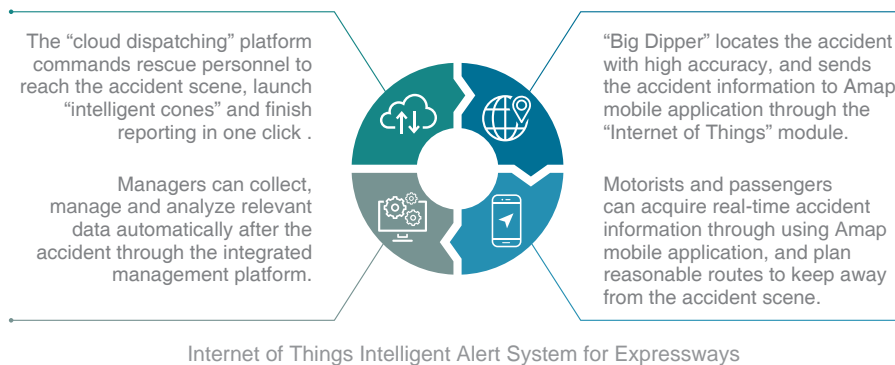
We put “mobile payment” into trial use, and spare no effort to realize full coverage of mobile payment in toll stations along Shanghai-Nanjing Expressway. We also explore “unconscious payment” through identifying and comparing vehicles’ plate numbers and mobile phone signals, so as to reduce the passing time at toll stations and realize quick passage at important transport nodes.

Intelligent Management

The Company has installed monitoring devices along all expressways, replaced traditional cameras with high-definition ones, and increased the distribution density of monitoring devices to further improve the coverage rate. By connecting monitoring devices to the cloud end of Jiangsu intelligent platform for expressway network operation and services, we realize 7/24 online monitoring over all road areas and stations. Command and dispatch can be made based on traffic information sent back by monitoring devices, and real-time traffic information can be timely released to the public to ensure accurate and high-efficient command and dispatch.

Adopting Intelligent Technologies to Ensure Smooth Traffic

We devote great efforts to promote the development of "Internet + Expressway". By using Internet of Things, big data and other advanced technologies, we cooperated with our partners to develop China's first Internet of Things intelligent alert system for expressways, which can give commanding and dispatching orders based on monitored traffic information and data analysis, and can timely release latest traffic information to the public. The system will improve the passage rate at crossings and ensure accurate and high-efficient command and dispatch on expressways.



< Intelligent technologies enhance the traffic capacity of expressways >

Huge traffic flow becomes increasingly common in Wuxi East Section of Shanghai-Nanjing Expressway, resulting in huge traffic pressure. In 2018, the Company cooperated with relevant scientific and research organizations to tackle the difficulty. The joint efforts promoted the pilot deployment of experimental ramp management and control system, lane management and control system, special lane dynamic control system, and illegal lane-changing behavior capture system on road sections with huge traffic flow and at key congestion points, and developed a technological and operational system for expanding the traffic capacity of expressways in an intelligent way, with an aim to increase the traffic capacity of expressways by 20% without physical expansion.

Releasing Real-Time Traffic Information through Multiple Channels

We set up traffic information ports with touch screens in every service area for road users to acquire information. In 2018, we cooperated with Amap and other Internet companies to deploy online traffic information release systems on Wuxi Section of Shanghai-Nanjing expressway, and to publish real-time traffic information sent by Amap on roadside message signs. Besides, we further enrich the information content to improve its accuracy and effectiveness.



In 2018, along Shanghai-Nanjing expressway and Zhendan expressway, the Company installed surveillance cameras on **257** roads and variable message signs on **75** roads, provided IP talkback equipment on **25** roads, and installed meteorological monitoring devices on **26** roads. All of them were connected to the cloud end of Jiangsu intelligent platform for expressway network operation and services, realizing at least one set of real-time video monitoring system every one kilometer.





Safe Traffic

Road safety is the priority of expressway operation and management enterprises. Regarding “road safety and quality” as the core task, Jiangsu Expressway continuously improves standard procedures for expressway safety, enhances the safety of road operation, and improves the expressway operation and safety management, providing safe travel and working environment for motorists, passengers and employees.

Improving Road Quality

The Company aims to build expressways with outstanding quality. We comprehensively strengthen quality management and control to ensure the quality of our expressways. While taking into consideration the current technology application of different road sections, we actively adopt scientific road maintenance methods to maintain good road condition, thus ensuring road safety and providing reliable transportation to the public.

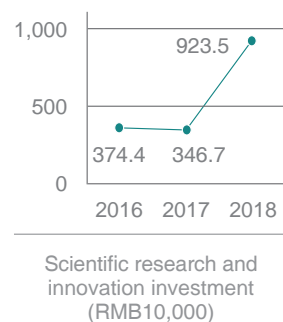
Improving Maintenance System

Based on the concept of full life-cycle maintenance, the Company continuously improves the maintenance system. In 2018, the Company newly formulated *Management Measures for Road Maintenance Engineering and Standards of Asphalt Pavement Maintenance and Design*, providing clearer instruction and standards for road maintenance management. The Company stayed humble to follow the guidance of Jiangsu Communications Holding Co., Ltd. and the Maintenance Technology Center to learn from recent technological innovations in the industry, and adopted new techniques and materials such as terrestrial heat regeneration, foamed warm-mix asphalt mixture technology, and water-draining noise-reduction pavement in special pavement maintenance projects, thus ensuring road quality all the time.



Innovating in Maintenance Technologies

The Company continuously innovates in and studies maintenance technologies. In 2018, the Company continued with various research projects, such as *Pavement Maintenance Strategy and Planning Research on Jiangsu Section of Shanghai-Nanjing Expressway*, *Evaluation Research on the Application of Asphalt Pavement Crack Repair Technology in Expressways with Huge Traffic Flow*, *Research and Application of Key Technologies in Truss Bridge Maintenance*, and *Research and Application of Key Maintenance and Renovating Technologies for Bridge Expansion Joint Based on High-Performance ECC Materials*. Based on research results, the Company actively promoted supporting engineering projects, developed the "Map of Pavement Technologies" and the "Analysis Map of Bridge Technologies and Hazards" to support decision-making on road and bridge maintenance, comprehensively improving the Company's technological capacity in road maintenance.



In 2018, Jiangsu Provincial Department of Transportation made an appraisal of the Company's "Research on Burning Test, Assessment and Reinforcement Methods for Hollow Plate Beams of Prestressed Concrete", spoke highly of the research result and its application effect in special occasions, and agreed that the research result had reached the international leading level.

Improving maintenance efficiency through intensified construction

In 2018, considering the huge traffic flow on Shanghai-Nanjing Expressway, the Company launched pilot intensified maintenance works on Ningzhen Section based on the research results of the Maintenance Technology Center on intensified maintenance, in order to minimize the impact of maintenance works on the traffic. It completed 164 intensified maintenance tasks in total, significantly reducing lane occupancy and improving both work efficiency and safety management.

Safeguarding Road Safety

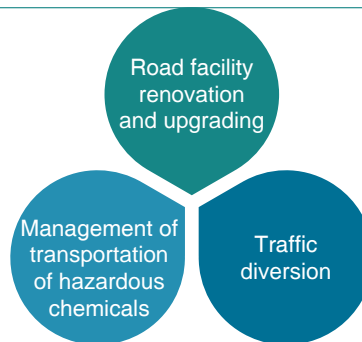
The Company strictly abides by the *Highway Law*, *Product Quality Law*, and *Regulation on the Administration of Toll Roads* and other related laws and regulations, continuously improves road safety management and risk prevention measures, and strengthens road safety emergency response mechanism, continuously enhancing safety management and control capabilities. The Company also applies information technologies to reinforce daily safety inspections to timely identify, report and cope with safety hazards, with an aim to eliminate hidden dangers in the bud, and provide safer travel experience for the public.

Increasing Safety Facilities

The Company actively carries out daily road patrolling to identify safety hazards and conduct rectifications, and strictly abides by *Regulation on the Safety Management of Hazardous Chemicals*, *Special Emergency Plan for Accidents Occurred during the Transport of Hazardous Chemicals*, *NHG4.04 Standard Operations for Hindrance Clearance and Rescue of Vehicles Carrying Hazardous Chemicals*, and other management regulations. The management of vehicles loaded with hazardous chemicals has also been enhanced to reduce the risks of leakage of hazardous chemicals. For places with high occurrence of road accidents, we improve road signs and safety facilities, and adopt measures such as separating lanes for different types of vehicles to ensure the safe travel of motorists and passengers, and reduce the risk of accidents.

- We have consolidated the entrance of toll stations, and newly installed front handrails in front of the vehicle weighing platforms, and set up concussion markings for speed reduction at toll stations.
- In the lower ramp area of Wuxi section, we have installed and deployed illegal lane-changing capture system to reduce traffic accidents caused by illegal lane-changing behaviours in the lower ramp area.
- Wuxi Section adopts the latest intensified marking technique to strengthen the fluorescent alerting effect of markings at night, and enhance the safety level of road traffic at night.

- We upgrade and renovate the parking area for vehicles carrying hazardous chemicals at service areas.
- We improve road signs and markings, newly install movable fences and set up micro firefighting stations.
- We also standardize the parking of vehicles carrying hazardous chemicals at toll stations and implement a vehicle registration system.



- We separate lanes for passenger vehicles and trucks at toll stations to avoid passenger vehicles and trucks driving onto the same lane to a certain extent, thus reducing accidents on toll lanes and improving passage efficiency.

Major safety protection measures

Setting up a rescue station to enhance road safety

The Company innovatively set up and put into use the first mainline rescue station of China along Wuxi section of Shanghai-Nanjing Expressway. The rescue station, designed and planned by the Company, is safe and reliable. It is equipped with office appliances, air conditioners, water and electricity facilities, and presets different types of plugs and sockets as well as network ports, making the working environment more comfortable and improving work efficiency. Moreover, the exterior appearance of the station perfectly matches with the landscape along the expressway. The station can well improve the arrival rate of rescue within 10 minutes, realize zero-delay emergency response for road sections with super high traffic flow along Shanghai-Nanjing Expressway, and provide safe and smooth travel environment for motorists and passengers to the maximum extent. After being put into use for over three months, the rescue station handled 136 accidents and malfunctioning vehicles with high efficiency, and improved the arrival rate of rescue within 10 minutes on over-saturated road sections from 42.2% to 77.3%.



Rescue station on Wuxi section of Shanghai-Nanjing Expressway

The Company also pays attention to improving the safety management of service areas. Besides allocating safety protection facilities and personnel, the Company also strives to raise the safety awareness of motorists and passengers through adopting various measures, strengthen management and control over food safety and product quality of lessees in service areas, and conduct food safety trainings for employees in service areas regularly, thus devoting to providing a safe environment in every respect to motorists and passengers.

Measures to Raise the Awareness of Motorists and Passengers on Traffic Safety

- Set up speed limit signs in service areas;
- Publish and timely renew safety education information on outside bulletin boards;
- Play safe driving advertising videos on LED screens in the main building and large-screen televisions inside buildings;
- Put up posters of safe driving, and hang safety alert banners in conspicuous positions;
- Install movable safety bulletin boards;
- Use traffic cone buckets to guide vehicles to certain lanes when the traffic flow is huge;
- Play a safety driving education audio on loop, maintain on-site order and security, and cooperate with traffic police and the highway administration to carry out special actions, etc.

Safety Precautions for Motorists and Passengers in Service Areas

- Ensure on-site security personnel on duty 24 hours a day, and guide the parking of vehicles;
- Ensure relevant personnel on duty in the monitoring office 24 hours a day, make full use of monitoring equipment, and set speed bumps at the entrance of service areas and gas stations;
- Set aisles for pedestrians in the parking area, and use zebra markings at entrances of the main building;
- Set safety reminders of various types;
- Prepare non-slip mats in public bathrooms in case of rain or snow;
- Formulate emergency plans and organize drills regularly.

Measures to raise safety awareness and protect the safety of motorists and passengers in service areas along Shanghai-Nanjing Expressway

Strengthening Emergency Response

The Company attaches great importance to the safety of motorists and passengers, and actively strengthens the emergency response capacity for handling emergencies on expressways. In 2018, the Company revised a number of emergency plans, including *Emergency Response Preparation and Emergency Handling Plan*, *Special Emergency Plan for Major Traffic Accidents*, *Special Emergency Plan for Fire Accidents* and *Special Emergency Plan for Gas Accidents*, to continuously improve the scientific, normalized and standardized expressway operation and management.

The Company coordinates with traffic police and the road administrations to deal with emergencies quickly. The Company also works closely with rescue personnel at hindrance clearance sites and medical rescue personnel to reduce risk caused by road accidents and avoid secondary accidents.

The “Tripartite Dispatch System for One Road” mechanism enables a quick handling of a self-burning passenger bus

In the early morning of 14 October 2018, an overloaded passenger bus running on Shanghai-Nanjing Expressway burst into flames. Traffic police, road administration and Jiangsu Expressway in Wuxi section closely collaborated with the firefighting force to immediately evacuate passengers in order, sent shuttle buses to transfer passengers to a near-by service area, and published information about the accident through multiple channels to notify passing vehicles. From receipt of reporting to completion of rescue, it took only one hour to recover normal traffic and safely transfer all 63 passengers.

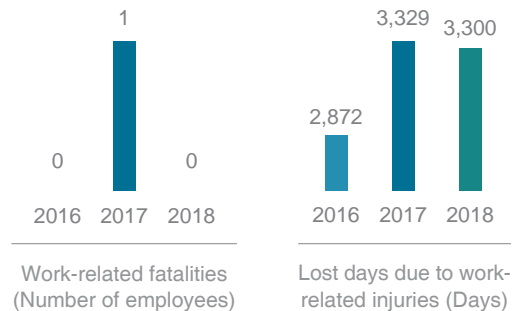
Comment from stakeholders

“The rescue was so immediate and efficient even at midnight. No wonder Jiangsu Expressway was titled the industrial benchmark in China.”

—Mr. Chen, one of the rescued passengers

Ensuring the Health and Safety of Employees

The Company focuses on the occupational health of employees, and strictly abides by national and local safety laws and regulations, including *Law of the People's Republic of China on Work Safety*, *Law of the People's Republic of China on Prevention and Control of Occupational Diseases*, *Regulations of Jiangsu Province on Labour Protection*, *Regulation for Work-Related Injury Insurance*, *Administrative Measures for Work Safety Training*, and *Administrative Measures for Labour Safety and Health*. Based on OHSAS 18001, we have established an occupational health and safety management system to strengthen our safety management. While formulating annual safety training plans, implementing a three-tiered new employee training system and conducting "safety month" competitions and other activities regularly, we have also provided employees with safety protection equipment to reduce the safety risks during work.



- Raise all employees' awareness of "safety is life"
- Carry out accident case analysis and education
- Organize trainings on first aid and health tips

Internet of Things safeguards work safety in road construction

To further improve the safety of operating personnel in road construction, Jiangsu Expressway officially put into use IoT intelligent cone bucket for construction sites. Compared with traditional traffic safety facilities, "intelligent cone bucket" has the characteristics of high precise positioning, intelligent senses, accurate information delivery, and high penetration rate. It can also realize the seamless connection with the data platform of AutoNavi Maps APP, and accurate information collection and release about road construction, accidents and traffic control, and thus ensuring the safety of both travelers and operating personnel.



Operating personnel installs IoT intelligent traffic cone buckets



- Urge employees to develop habits of "safety first, standard operations, and good risk prevention" to ensure work safety;
- Increase safety protection equipment;
- Re-troubleshoot hazards threatening personal safety
- Set up archives of work safety;
- The Safety Office under Management Department should assist professionals in checking the access requirements for staff.
- Regularly carry out spot checks on the operations of field staff

Work safety measures

Identifying risks to eliminate hidden dangers

To fully carry out the special work safety rectification action of "five inspections and five improvements" put forward by Jiangsu Communications Holding Co., Ltd., and take the Company's "work safety month" as an opportunity, Jiangsu Expressway organized the activity of "Identifying Risks for Safety" in Xianrenshan service area. The Company also organized all management personnel in the service area to take an active part in the activity, such as troubleshooting safety hazards thoroughly and "identifying risks" in the operation procedure and the status of equipment. In the activity, the Company received three reasonable suggestions on work safety and eliminated two safety hazards, thus comprehensively creating a favorable working environment of "life first and safe development".





Smooth Traffic

Smooth traffic reflects a region's economic development, and is also an essential part of the public's pursuit for a better life. The Company is committed to leveraging on its professional advantages to ensure smooth traffic by strengthening the close collaboration with traffic police and highway administration to enhance hindrance clearance and rescue efficiency, and ensuring smooth traffic on occasions of extreme weathers as well as holidays and festivals with heavy traffic flow, thus enhancing the operating efficiency of the expressway network.

Traffic Order Management

In 2018, the one-time passage rate of ETC lanes governed by the Company was **97%**, and all of our toll stations had ETC lanes.

Through strengthening traffic order management and planning, the Company improves the traffic capacity of roads, and continuously consolidates the collaboration with traffic police and highway administration to ensure smooth traffic. We implement “Tripartite Dispatch System for One Road” by collaborating with traffic police and highway administration, and adopt additional measures to optimize traffic order and guarantee traffic efficiency, such as “five methods for guaranteeing smooth traffic at crossings”, and “resorting to preventative measures in advance”, etc. At toll stations, we use laser identification technology to identify the type of vehicles, and set up dedicated green passages for specific types of vehicles to realize quick toll collection and passage, and improve the traffic order at toll stations.



Adopting multiple measures to ensure the smooth traffic at Dantu traffic hub

Dantu traffic hub is a crucial transport node on Shanghai-Nanjing Expressway. It faces great traffic pressure and is extremely easy to become a congestion point during holidays and festivals. To improve the traffic capacity of Dantu traffic hub, we took multiple measures, including broadening ramps, improving guiding signs, setting up anti-collision facilities and opening up lanes for specific types of vehicles, to ensure smooth traffic and effectively relieve the congestion during holidays and festivals when there is huge traffic flow. During the Labor Day holiday, ramps connected by Dantu traffic hub from Runyang to Shanghai handled a daily traffic flow of 18,800 vehicles, up 27.03% over the same period last year. The average passing time reduced 3.51 seconds compared with that of last year. Moreover, there was no significant congestion or accident, showing that we have fully kept our commitment of “providing smooth expressways and heartfelt services to drivers and passengers of Shanghai-Nanjing Expressway”.

Improving Emergency Mechanism for Guaranteeing Smooth Traffic

We continuously improve the development of emergency mechanism for ensuring smooth traffic and the emergency mechanism for extreme weathers, such as snow and ice, as well as holidays and festivals when there is huge traffic flow, so as to timely and efficiently respond to emergencies and ensuring the smooth operation of the road network.

Ensuring Smooth Traffic during Extreme Weathers

We have formulated a *Special Emergency Plan for Sweeping and Removing Snow and Ice in Adverse Weather*, specifying the emergency measures in case of sudden extreme weathers. We pay close attention to such weathers in advance, timely receive and publish early warnings for adverse weather conditions, and then coordinate with traffic police and highway administration to determine traffic control measures and allocate snow melting materials in advance. At the same time, we release the information of adverse weather and traffic control through various channels and methods such as variable message signs, WeChat and Weibo, to meet the requirement of “finishing cleaning up roads when the snow stops”, and ensure that roads won’t be blocked and are fully smooth in snow and ice weather, in an effort to provide safe and smooth travel conditions to the public.

During the heavy snowfall in early 2018, we optimized internal and external equipment and resources, and allocated nearly **2,000** operating personnel, **1,100** vehicle trips for carrying equipment, and nearly **2,000** tons of snow-melting materials to ensure the openness and smooth traffic of Shanghai-Nanjing Expressway during the snow.

- 1 We implement the “Tripartite Dispatch System for One Road” for close collaboration, improve emergency plans and pool strengths of ensuring smooth traffic, and debug relevant equipment to ensure that snow-melting materials are abundant, maintenance personnel are all in positions, and adverse weather alerts are timely published.
- 2 In key areas such as emergency lanes, bridges and crossings at toll stations, we carry out ongoing traffic condition patrols, and adopt hard traffic isolation control measures when necessary, and seize the initiative in sweeping and removing ice and snow.
- 3 In accordance with the emergency level prescribed in the emergency plan, we determine specific snow-melting points with flexibility, and are devoted to removing and melting ice and snow on key lanes on an ongoing basis. Traffic police and the highway administration accompany ice-melting vehicles all the way on alert, and mobile personnel will be allocated to clean up snow in the toll station area.

Measures for smooth traffic in ice and snow weather

Ensuring Smooth Traffic in Holidays and Vacations with Extremely High Traffic Flow

To ensure smooth traffic during holidays and festivals, we take the initiative to explore physical expansion + intelligent management and control, and consider changes of the road network and distribution of traffic flow to carry out interconnectivity development work at relevant traffic hubs and renovation at service areas, thus improving the traffic capacity physically.

We finish ramps renovation at Dantu traffic hub, and reduce $\frac{1}{4}$ of the passing time while the traffic flow increased by 27% compared with the same period last year during the Labor Day Holiday.

We cooperate with the Traffic Management Bureau of Public Security Department of Jiangsu Province to formulate “3+1” traffic management and control scheme for Dantu traffic hub and “4+1” scheme for Wuxi road section with super huge traffic flow, so as to ensure smoother and more orderly traffic during the National Day Holiday.



We renovate and broaden the entrance ramps of Yangchenghu, Fangmaoshan, Meicun and Huanglishu service areas, thus unblocking “bottlenecks” of service areas.

We renovate and design the parking bay on a road section with huge traffic flow at the juncture of Suzhou and Wuxi, and realize conditional opening of emergency lanes when the traffic flow is super huge to release the potential traffic capacity of roads.

Smooth traffic guaranteeing measures during holidays and festivals

Enhancing Hindrance Clearance and Rescue Efficiency

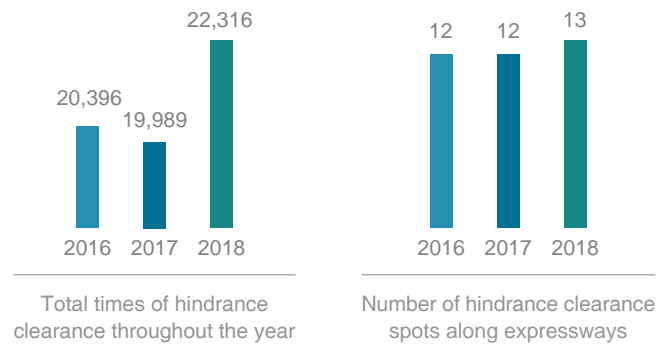
To standardize the command and dispatch of the Jiangsu section of Shanghai-Nanjing Expressway and ensure the normal operation of the expressway, the Company focuses on improving the standardized management of road hindrance clearance. We have formulated management regulations including the *Management Rules for Implementation of Hindrance Clearance Operations*, the *Management Measures for Command and Dispatch*, the *Hindrance Clearance Fees and Bills Management Rules*, and the *Management Measures for Hindrance Clearance Operation*. We have also compiled operation manuals for different hindrance clearance positions to standardize work processes of hindrance clearance operations and improve the efficiency of hindrance clearance.



Rescue station enhances hindrance clearance efficiency

“Five Standards” on hindrance clearance further improves management

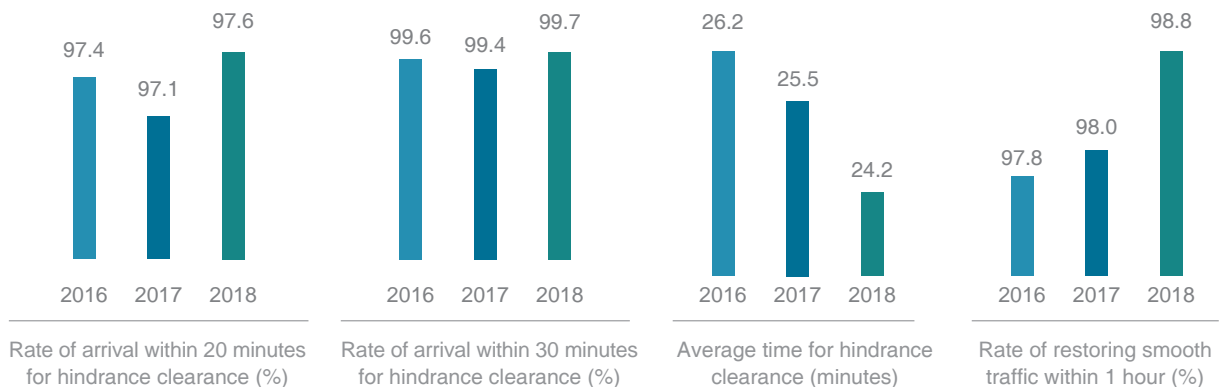
To improve the service quality of hindrance clearance personnel, standardize their operations, strengthen safety management, and ensure smooth traffic, Danyang East Maintenance and Hindrance Clearance Center on Shanghai-Nanjing Expressway has formulated a standard hindrance clearance scheme through reform and innovation and refining management to build up hindrance clearance teams with specific features and further improve management. Danyang East Maintenance and Hindrance Clearance Center further clarifies the “five standards” concerning hindrance clearance services by combining with actual hindrance clearance practices, so that hindrance clearance personnel can fully understand the form of their work, and will continuously increase the awareness of providing standardized services while maintaining smooth traffic in a safe and fast way. The center also carries out theoretical tests and on-site drills for relevant personnel, sets passing scores for being “excellent” and “qualified”, and incorporates the scores into the overall assessment.



Through pooling strengths of road administration, traffic police, hindrance clearance, maintenance and assistance workforces to ensure smooth traffic, the Company establishes a clear teamwork mechanism featuring “joint command, common communication channel, common video network, and information sharing”. We properly allocate law enforcement vehicles and personnel on road maintenance and hindrance clearance vehicles, combine “agile + steady”, “point + surface”, “official + civil” strengths, refine grid management, give full play to “1 + N” synergistic effect, and meet up with four requirements of “quick identification, quick arrival, quick disposal, and quick withdrawal”. Through setting up routine hindrance clearance stations reasonably and coupled additional flexible stations, carrying out cross-region rescue with the help of external assisting parties, moving hindrance clearance and rescue forces to toll plazas and other measures, we successfully enhance accident handling and hindrance clearance & rescue efficiency.

2016—2018
Satisfaction towards
hindrance clearance

100%







Green Development

Expressways facilitate a country's economic development and public travel, but the construction and operations of expressways have negative impact on the ecological environment. Jiangsu Expressway earnestly practices the concept of green development by promoting low-carbon operations and green maintenance, and strives to beautify the ecological environment and support the realization of lucid waters and lush mountains while controlling and reducing the Company's negative impact on the environment.

Environmental Management System

The Company has strictly abided by national and local laws and regulations related to environmental management, such as *Environmental Protection Law*, *Environmental Protection Tax Law*, *Energy Conservation Law*, *Law of Water and Soil Conservation*, and *Regulation of Jiangsu Province on Energy Conservation*. In accordance with ISO 14001, we established environmental management systems, including *Environmental Protection and Management Measures*, *Measures for the Identification, Evaluation and Control of Environmental Factors*, and *Rules of Environmental Impact Control and Management by Relevant Parties*, and thus have realized the management of energy use and emissions, and enhanced our environmental protection capability in the transportation industry. In 2018, the Company invested RMB1,780,400,000 in environmental protection.

As ecological civilization advances in China, more policies have been developed to promote environmental protection. In 2018, *Environmental Protection Tax Law*, *Regulation on the Implementation of the Environmental Protection Tax Law*, the newly revised *Water Pollution Prevention and Control Law* and other relevant laws and regulations at the national level were officially implemented, and *Regulation of Jiangsu Province on Air Pollution Prevention and Control*, *Regulation of Jiangsu Province on Solid Waste Pollution Prevention and Control* and *Regulation of Jiangsu Province on Noise Pollution Prevention and Control* have been successively implemented by the provincial government, which put forward higher requirements for our environmental management. The Company will continue to improve the environmental management capability, and promote the use of low-carbon and energy-saving technologies to minimize the environmental impact of the Company's operations and construction.

Low-carbon Operation

Jiangsu Expressway has been committed to reducing its impact on the ecological environment during the construction and operations of expressways. We integrate the concept of green development into our business operations, promote the application of environmental protection technologies and raise employees' environmental protection awareness in an effort to manage environmental footprints and achieve low-carbon operations. In 2018, the Company reduced CO₂ emissions by 1,692 tons and water consumption by 92,823 tons.

Energy Saving and Consumption Reduction

Energy type	Index	Unit	2016	2017	2018	Increase/decrease compared with last year
Direct energy consumption	Liquefied petroleum gas	kg	41,722	42,973	124,293	+189%
	Natural gas	m ³	20,158	39,719	39,869	+0.38%
	Gasoline	L	375,209	344,410	288,296	-16%
	Diesel oil	L	440,859	435,615	--	-100%
Indirect energy consumption	Electricity consumption	kWh	21,119,935	18,833,937	18,009,389	-4%

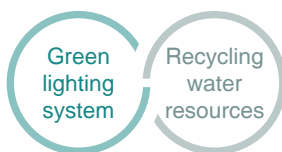
Energy type	Unit	2016	2017	2018	Increase/decrease compared with last year
Direct energy consumption	ton of coal equivalent	1,040	1,027	573	-44%
Density of direct energy consumption	ton of coal equivalent / RMB million	1,130	1,086	575	-47%
Indirect energy consumption	ton of coal equivalent	2,596	2,315	2,213	-4%
Density of indirect energy consumption	ton of coal equivalent / RMB million	2,821	2,448	2,220	-9%
Water consumption	ton	751,772	535,614	442,791	-17%
Water consumption density	ton / RMB million	817,055	566,428	444,257	-22%

Note: The converted standard coal coefficient of natural gas equals to the average of oil field and gas field natural gas.

Energy consumption of Jiangsu Expressway

Supported by the environmental management systems, the Company has formulated the administrative regulations for energy and resource control to integrate the energy consumption statistics (including natural gas, liquefied petroleum gas, water, electricity, and gasoline) of all units into the performance appraisal. Based on the analysis of annual energy consumption of each unit, the Company has realized comprehensive refined management of energy consumption and reduced energy consumption through equipment transformation and upgrading as well as the application of energy-saving and environmental protection technologies.

LED energy-saving lights are widely used during the renovation of toll stations, service areas and important hubs. By applying the technology of wind-solar complementary power generation, much energy is saved. In 2018, the Company carried out the circuit control experiment based on light monitoring, during which the lighting circuit is turned on or off according to the change of illuminance, dynamically controlling the duration when the lights are on and accurately controlling energy consumption.

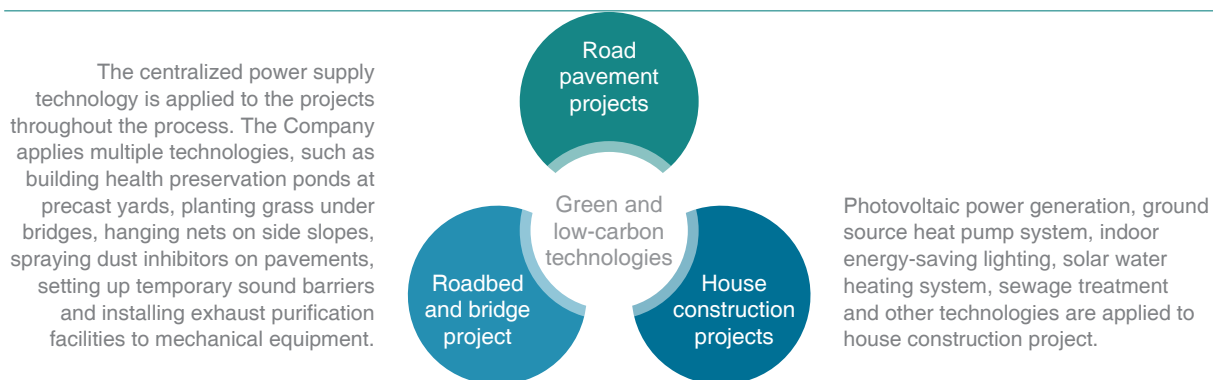


The Company faces no problem in obtaining suitable water sources. A 3-kilometer section along Zhendan Expressway is adjacent to Taishan Reservoir, a first-level water source protection zone. Because of this, engineering protection measures are adopted to ensure that the water discharged is up to related standards. Besides, the Company has set up a standard water management system and strengthened related publicity. By strengthening the recycling and collection of rain water, the Company has enhanced the recycling and reuse of water resources.

Measures to reduce energy consumption

The Company has taken an active part in promoting and participating in the construction of low-carbon expressways and “low-carbon project demonstration service areas” under the “green, circular and low-carbon demonstration project” of the Ministry of Transport, and contributed to a green modern integrated transportation system through the application of various energy-saving and environmental protection technologies, fully demonstrating the Company’s leading role in low-carbon operations. In 2018, Zhendan Expressway, the first low-carbon expressway in Jiangsu Province, was officially opened. Meanwhile, low-carbon projects in the Shuijingshan Service Area covering ground source heat pump, circulating air conditioning, photovoltaic power generation, water recycling and storm run-off collection, were launched simultaneously, effectively guaranteeing energy saving and emission reduction, and reducing energy consumption.

Finished rubber asphalt and warm mixed asphalt is used for road pavement projects, oil-to-gas technology is applied to mixed floors, and other technologies are also applied by the Company.



Green and low-carbon technologies applied in the Zhendan Expressway



Shuijingshan Service Area



Zhendan Expressway

Emission Reduction

Jiangsu Expressway strictly enforces national and local laws and regulations on emission management, such as *Environmental Protection Law*, *Air Pollution Prevention and Control Law*, *Water Pollution Prevention and Control Law*, *Law on the Prevention and Control of Environmental Pollution by Solid Waste* and *Regulation of Jiangsu Province on the Administration of Kitchen Wastes*. We actively implement the requirements of the Company's environmental management systems on environmental protection and emission to ensure that all emissions of the Company meet the requirements of related laws and regulations, achieve lean management of emissions, and reduce environmental pollution caused by waste, and work to reduce waste at the source.



Exhaust emissions reduction

Carrying out the research on exhaust gas degradation technology at toll stations and promoting its application at Xuejia Station



Sewage treatment

Connecting sewage in some stations and service areas to the local municipal sewage pipeline network, and installing sewage treatment equipment in some stations and service areas



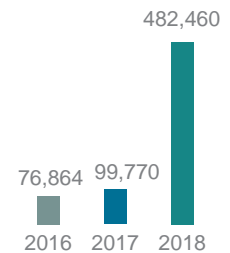
Waste recycling

Wuxi Road Maintenance and Hindrance Clearance Center renovates reflective cones whose reflective stripes became ineffective, and coats road safety barrels along the expressway to improve the recycling rate

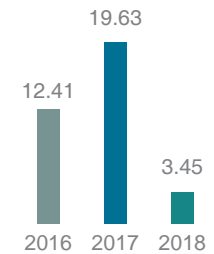


Noise pollution reduction

In 2018, the Company built 896 meters of noise barriers to reduce the impact of expressway noise on surrounding areas

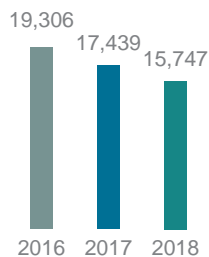


Emission of waste water (ton)

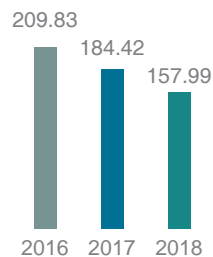


COD emission (ton)

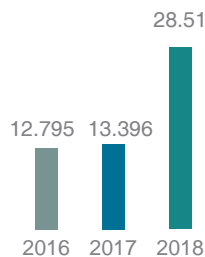
Jiangsu Expressway's measures to reduce emissions



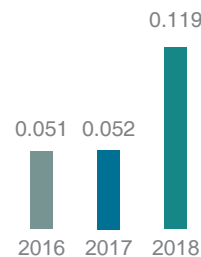
CO₂ emission (ton)



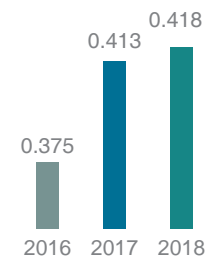
CO₂ emission density (ton/RNB 100 million)



Emission of nitrogen oxides (ton)



Emission of sulfur oxides (ton)



Emission of particulate matters (ton)

The Company has developed measures for the management of different types of wastes generated during the operations of expressways, and reduced the generation of wastes and their impact on the environment by saving and recycling resources and delivering hazardous waste to qualified third parties for disposal.

	Category	Unit	2016	2017	2018	Increase/ decrease compared with last year	Unit	Density (2018)
Hazardous wastes	Waste chemical materials and their packages and containers	piece	526	520	148	-72%	piece / RMB million	148.5
	Waste containers for paint and oil	piece	854	135	135	0%	piece / RMB million	135.4
	Oil-stained gloves	pair	1,070	1,070	1,926.00	+80%	pair / RMB million	1,932.4
	Waste ink cartridges (including waste power)	piece	198	209	233.00	+11%	piece / RMB million	233.8
	Waste cartridges	piece	240	247	507.00	+105%	piece / RMB million	508.7
	Electronic wastes such as batteries	kg	147	127	23.85	-81%	kg / RMB million	23.9
	Waste fluorescent lamps	kg	236	367	97.01	-74%	kg / RMB million	97.3
Non-hazardous wastes	Paper	ton	8.92	10.73	75.07	+600%	ton / RMB million	75.3
	Kitchen wastes	ton	499.42	512.39	1044.52	+104%	ton / RMB million	1,048
	Plastic	ton	1.69	1.87	0.88	-53%	ton / RMB million	0.9
	Metal	ton	1.48	3.89	1.22	-69%	ton / RMB million	1.2
	Wooden products	ton	2.26	1.6	1.33	-17%	ton / RMB million	1.3

Reusing reflective cones to lower carbon emissions and practice environmental protection

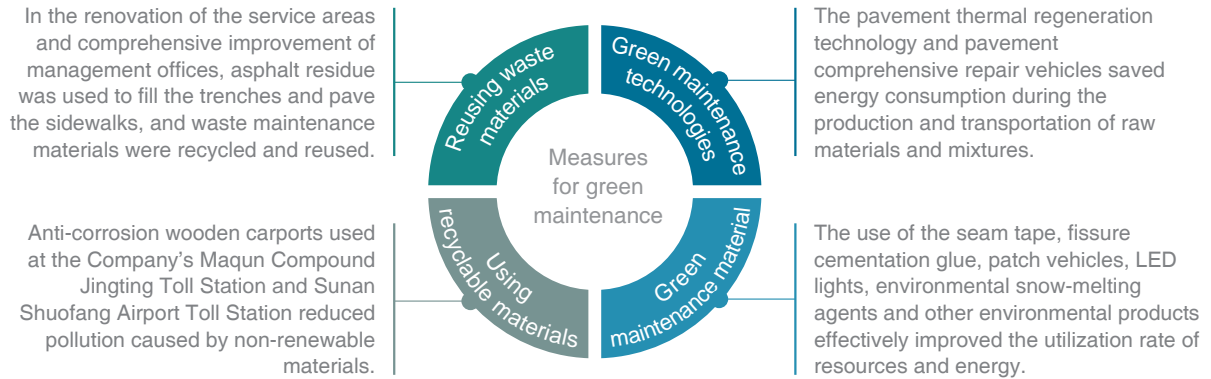
Reflective cones are important guarantees for safe road operations. However, due to long-term erosion of rain and sun exposure, reflective cones become aging and damaged easily, and it is common for the reflective stripes to become ineffective. Since 2016, Wuxi Road Maintenance and Hindrance Clearance Center, with all standards for safe road operations properly met, has done a great job in recycling waste reflective cones, actively communicated with suppliers for the procurement of tailored reflective cones, and renovated reflective cones whose reflective stripes became ineffective but remaining intact in structure. In 2018, Wuxi Road Maintenance and Hindrance Clearance Center renovated a total of 102 reflective cones of 50×50 size and 165 reflective cones of 70×70 size, saving an estimated RMB 9,460. This realized the recycling of waste reflective cones and was in line with the concepts of green and low-carbon development.

Conducting waste sorting training to promote the construction of green service areas

In recent years, China has launched policies to promote waste sorting. In order to further enhance employees' awareness of environmental protection and promote environmental concepts, Yangcheng Lake Service Area organized its catering department, commodity department and cleaning staff to participate in the waste sorting training. Through case studies and discussions, the training enabled employees to realize the importance of waste sorting and distinguish between kitchen waste, hazardous waste, recyclable waste and other wastes, laying a solid foundation for waste sorting in service areas and creating green service areas.

Green Maintenance

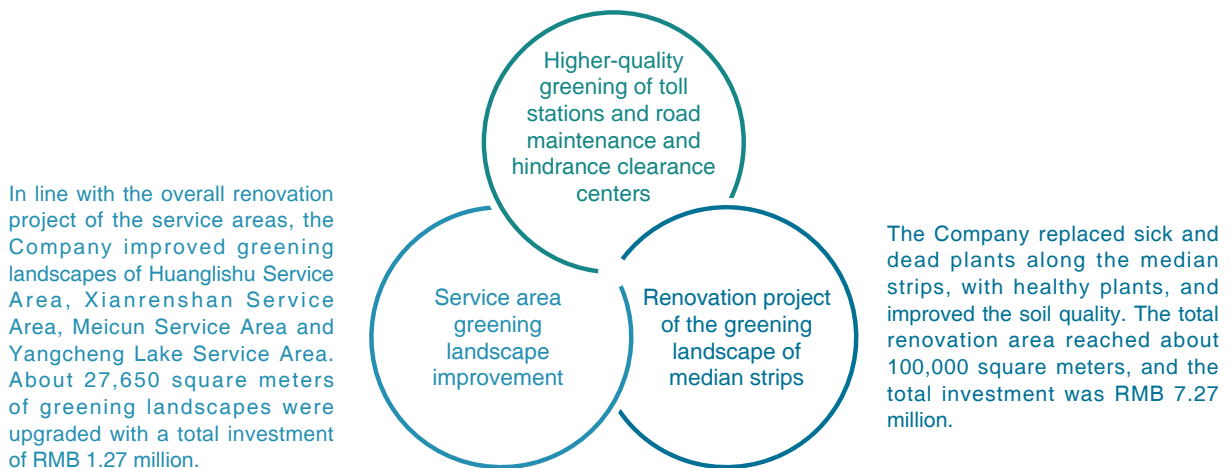
Road maintenance is vital to expressway operation. Jiangsu Expressway, integrating the concept of green development into road maintenance, actively promotes green maintenance. We continue to apply new technologies and green materials to reduce the impact of road maintenance on the environment while guaranteeing high capacity of expressways and quality services. In 2018, the Company realized 100% reuse of waste asphalt residue and other waste materials and 100% use of seam tape, potting adhesive and other low-carbon maintenance materials.



Beautifying Ecological Environment

As the construction and operations of expressways have a negative impact on the ecological environment, Jiangsu Expressway has adopted various measures to improve the landscape along the expressways. In 2018, the Company enhanced the comprehensive remediation of the environment by upgrading green landscapes, renovating buildings and structures, cleaning billboards, afforesting the space under bridges, setting up enclosures and so on.

Jiangsu Expressway completed higher-quality greening of important sections including Suzhou New District Station, Xuejia Toll Station and Road Maintenance and Hindrance Clearance Center, Tangshan Toll Station and Road Maintenance and Hindrance Clearance Center, and Heyang Intercommunication Road Junction. The total greening area was over 130,000 square meters with an accumulative investment of RMB 11.37 million.



Measures to beautify the road ecological environment



陽澄湖
Yangcheng Lake
High Speed Service area



Heartfelt Services

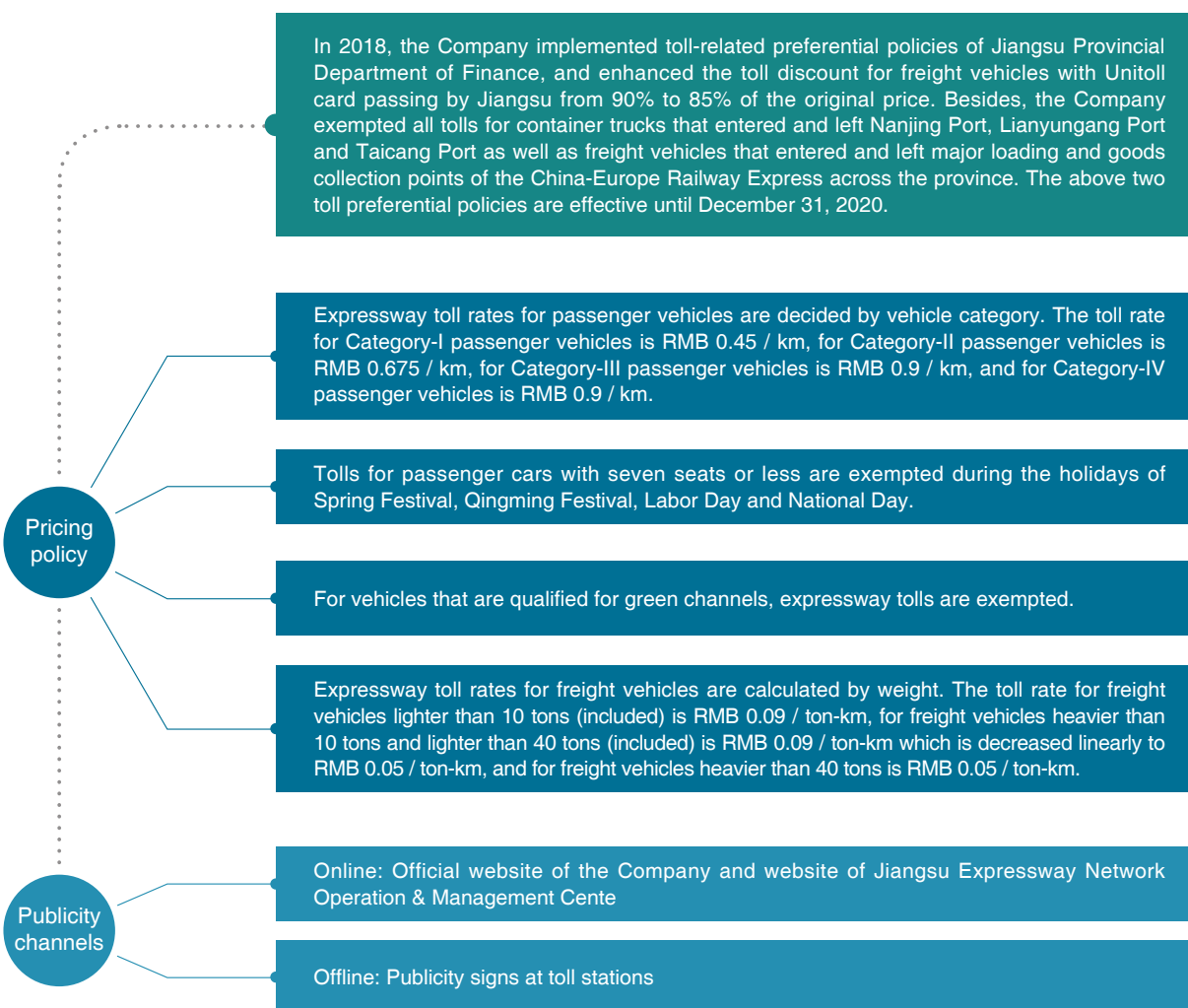
As public facilities, expressways provide strong support for regional economic and social development and facilitate people's travel. Adhering to the social responsibility philosophy of "guarding safety and marching towards the future", Jiangsu Expressway provides heartfelt services for customers. By providing customers with quality services, sharing harmonious development with employees, and working closely with suppliers and partners, the Company aims to contribute to a better community.

Quality Customer Service

Jiangsu Expressway upholds the service philosophy of "Customer first and attentive service". Our intelligent means and innovative services have improved the basic services constantly, promoted standardized service areas and stations, and enhanced the management of service areas and service quality, thereby providing customers with quality services to enhance the satisfaction of motorists and passengers.

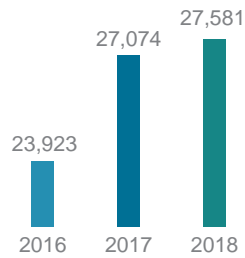
Guaranteeing Basic Services

Jiangsu Expressway has formulated the pricing policy for service areas in accordance with relevant provisions within the *Regulations of the People's Republic of China on Price Control*, and worked out *Operation Management Measures*, *Toll Administration Measures* and other relevant documents to ensure quality services at all toll stations. We have actively implemented national and local preferential toll policies on expressways to help reduce transportation and logistics costs.

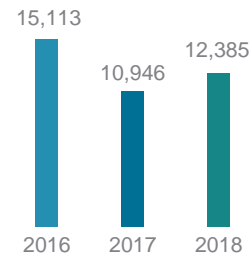


The pricing policy for toll stations and publicity channels

Total tolls exempted for major holidays and festivals (RMB0'000)



Total tolls exempted for green channels (RMB0'000)



Total tolls exempted for major holidays and festivals and green channels

The Company has continuously improved services of toll stations and actively promoted electronic toll collection by increasing the number of ETC lanes and self-service card issuing lanes, having realized mobile payment along all expressways and greatly boosting tolling efficiency. At the same time, we have continued to improve the services of toll stations and conducted inspections of tolling services in strict accordance with relevant management methods of the Company. We have established a team to provide around-the-clock maintenance service for hardware and software facilities of the tolling system in order to complete daily maintenance of the system and emergency repair work with high quality and ensure quality and reliable services at toll stations.

Jiangsu Expressway pays special attention to the travel needs of people with disabilities and women passengers, and has expanded the coverage of basic services through various means to provide non-discriminatory quality services. By setting up disabled parking spaces in service areas, providing barrier-free passageways at major entrances and exits, installing accessible basins at the rest room, providing free wheelchairs at the service desk, etc., the Company endeavors to facilitate the travel of disabled passengers. Besides, some service areas provide nurseries, women's parking spaces, unisex toilets and other convenient facilities and services around the clock, and volunteers of the "168 Service Station" offer help and consulting service for special groups.

Improving Customer Experience

Targeting the increasing consumers' travel needs, Jiangsu Expressway has accelerated the transformation and upgrading of expressway service areas, and has been dedicated to improving the service quality and operational benefits of service areas to better meet people's needs for diversified, quality and comfortable travel.

Based on the requirements and direction stipulated in the development strategy and top-level design of Jiangsu Communications Holdings Co., Ltd. for expressway service areas, Jiangsu Expressway has thoroughly implemented the *Opinions on the Implementation of Further Improving the Service Quality and Operational Benefits of Expressway Service Areas* of Jiangsu Communications Holdings Co., Ltd. We have continuously improved software and hardware facilities and service quality of service areas to provide customers with a better service experience, and devoted great efforts to promoting the business transformation of service areas to build warm stations for customers with greater values.

Installing new facilities

The Company upgraded the comprehensive service buildings in service areas by adding the comprehensive service desk, nursery, unisex toilet, drinking water room, lounge for drivers and passengers, shared power banks, etc., and made wireless network available in all indoor space.

Providing new services

The Company provided customers with rooms where they can eat instant noodles and microwave food sold in restaurants of the service areas. The Suzhou Station also distributed hand-painted Suzhou maps among drivers and passengers free of charge.

Measures to improve software and hardware facilities and service quality of service areas

Completed renovation

Meicun Service Area has seen transformation with the largest scale, the fastest speed, the highest quality and the best results. It provides the "Meicun Experience" for the transformation and upgrading of service areas in the whole province and even the whole country.

Meicun Service Area

Huanglishu Service Area

Completed renovation

With the theme of "Tangshan Impression, Nanjing Taste", the service area fully displays the traditional local culture and allows visitors to enjoy the authentic Nanjing flavor.

Completed renovation

With the theme of "From Xijindu to Qinhuai River" and the principle of "safety, convenience, comfort and care", the service area shows the culture of the ancient city of Zhenjiang and the cultural atmosphere of Nanjing, the ancient capital of six dynasties.

Xianrenshan Service Area

Fangmaoshan Service Area

Completed in January 2019

With the theme of "dinosaurs and cultural experience", Fangmaoshan Service Area is built into the world's first dinosaur-themed service area, bringing guests a wonderful trip to the prehistoric world.

To be completed in March 2019

With the theme of "a dreamlike and poetic town by the water in south of the Yangtze River", and aiming to be No.1 service area in China with international leading position, a 40,000-square-meter garden-style service area will be built near the gorgeous Yangcheng Lake.

Yangcheng Lake Service Area

Douzhuang Service Area

To be completed in the first half of 2019

With the theme of "Splendid and Colorful Douzhuang", the service area will deeply integrate "tourism + transportation" to provide drivers and passengers with a shared space with a brand-new experience and style.

Transformation and upgrading of services for more diversified travel experience

In the future, Jiangsu Expressway will continue to renovate and expand service areas, improve all kinds of hardware facilities, and provide more diverse businesses to offer better public services and meet people's growing needs for better travel experience.

Handling Customer Complaints

The Company has implemented the ISO 9001 quality management system, formulated *Management Measures on Handling Complaints* and other institutional documents, and set up a special department to handle complaints, thus ensuring the convenient and smooth complaint channels for proper handling of complaints by personal visit, telephone or the 96777 hotline. In addition, the Company classifies and analyzes collected complaints on a quarterly basis, and thereby develops targeted solutions to optimize customer service.

The Company continuously strengthens employee training to implement regulations on standardized service required by Jiangsu Communications Holdings Co., Ltd. and build a standardized service system. We encourage toll stations to carry out competitions on improving the "heartfelt services" and "business services" to enhance employees' passion for work, reduce complaints, and increase customer satisfaction.



Sharing Development Achievements with Employees

Employees are precious treasures for the development of a company. Always putting people first in its operation, Jiangsu Expressways guarantees employees' rights and interests, supports employees' career development and cares for their mental and physical health, striving for shared development between employees and the Company.

Harmonious Labor Relations

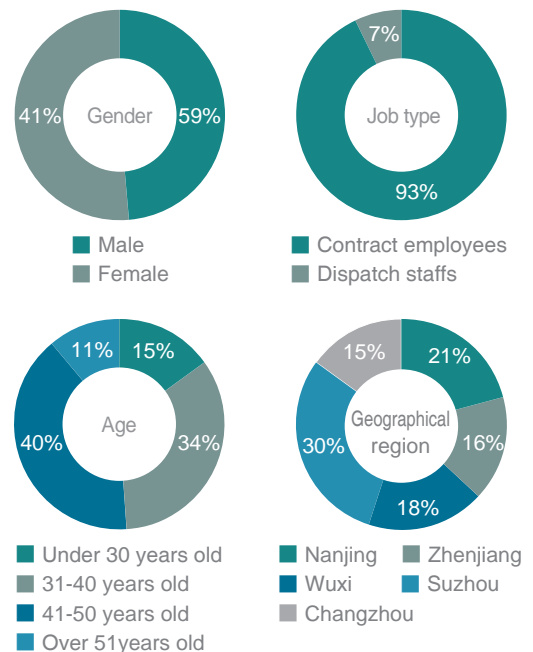
Harmonious labor relations underpin the healthy and sustainable corporate development. The Company strictly abides by relevant national and local laws and regulations, including *the Company Law*, *Labor Contract Law* and *Regulations on Salary Payment of Jiangsu Province*, persists in fair and equal employment, and eliminates the use of child labor and forced labor. No violations or negative events occurred during the reporting period. To eradicate all kinds of discrimination, we provide equal employment for male and female employees of different ages, education background and ethnicities, ensuring a diverse corporate atmosphere for our employees. As of the end of 2018, the Company had a total of 3,406 employees.

The Company upholds the principle of people first and has gradually established and improved the management system that caters to the modern corporate human resources management and fits the reality of the Company according to the requirements of "clear responsibility, standardized operation, competence and high efficiency, harmony and integration". In accordance with the national laws and regulations and other requirements, the Company has formulated *Human Resources Management Measures*, *Employee Rewards and Punishment Management Measures (Interim)*, *Employee Attendance Management Measures* and *Compensation Management Rules (Interim)* to improve the performance appraisal system and salary distribution plan, which have greatly boosted employee performance. We make rational plans for the introduction and development of talents and optimize the allocation of human resources. Also, we enhance the standardization and scientific management of performance evaluation. At the same time, the Company upgrades the talent selection, introduction, recruitment, cultivation and promotion mechanism, and builds teams of management, technical personnel and staff that are in line with the Company's long-term development. In respect of employee rewards, the Company insists on the principle of combining moral encouragement and material rewards while prioritizing moral encouragement. For employees who violate disciplines, the Company adheres to the principle of highlighting education and taking punishment as a complementary measure. For serious disciplinary violations, the Company will inform employees involved of the termination of labor contract in advance.

As to compensation distribution, the Company adheres to the principle of distribution according to work performance, whilst implementing salary cap control and connecting salary distribution with performance assessment. In addition to providing the employees with insurance and housing fund, the Company also formulates the *Regulations on Supplementary*

Medical Insurance Management and combines fund-based insurance and critical illness insurance to make up for the insufficiency of basic medical insurance for all employees and retirees and to reduce the economic burden of employees who suffer from illnesses. In 2018, the newly revised *Enterprise Annuity Measures* was officially implemented, stipulating that employees who have lost their working capability completely can apply for the enterprise annuity. Also, the Company revised the *Enterprise Annuity Implementation Rules* to provide multi-level pension guarantee for retired employees.

The Company has divided the working hours of employees into day shifts and rotating shifts according to the work requirements and the *Employee Attendance Management Measures*. Except for legal holidays, workers of the day shifts work 5 days a week and 8 hours a day; while for workers of rotating shifts, the four-three system has been adopted, according to which they shall work 40 hours per week. Apart from national statutory holidays, the Company offers 5 to 15 days of paid leave to employees according to the *Regulations on Annual Paid Leave*. Besides, all employees can also enjoy paid sick leave, special casual leave, wedding leave and compassionate leave; female employees have parental leave, pregnancy leave and miscarriage leave while male employees enjoy nursing leave.



Workforce by gender, age group, job type and geographical region



Labor contract signing rate

100%



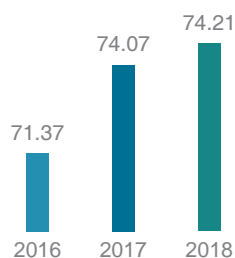
Social insurance coverage

100%



Employee opinions solicited

262



Employee satisfaction rate

Note: The 2017 data in the Social Responsibility Report 2017 was incorrect. The data disclosed in this report shall prevail.

Disclosure	Category	Unit	2018
Employee turnover rate by gender, age group and geographical region	Turnover rate of male employees	%	1.45
	Turnover rate of female employees	%	2.50
	Turnover rate of employees under 30 years old	%	1.03
	Turnover rate of employees between 31 and 40 years old	%	1.68
	Turnover rate of employees between 41 and 50 years old	%	0.66
	Turnover rate of employees over 51 years old	%	0.53
	Turnover rate of employees based in Nanjing	%	0.35
	Turnover rate of employees based in Zhenjiang	%	0.15
	Turnover rate of employees based in Wuxi	%	0.47
	Turnover rate of employees based in Suzhou	%	1.37
	Turnover rate of employees based in Changzhou	%	0.36

Employee turnover rate by gender, age group and geographical region

The Company has established and improved the employee representative system, transparent corporate governance system, employee opinion soliciting system, employee rationalization proposal system and other relevant systems to facilitate democratic engagement and management within the Company. By regularly holding congresses of employees and trade union members, Jiangsu Expressway effectively protects employees' right to democratic decision-making, management and supervision. In 2018, the employee representative conference deliberated and passed the *Plan of Jiangsu Expressway on Implementing Special Working Hours for Some Posts* and *Jiangsu Expressway Collective Contract* to safeguard the vital interests of employees.

We carry out employee assistance activities and set up special employee supporting funds to help employees in difficulties. In 2018, we visited and provided financial assistance to 321 employees and contributed financial aids of RMB 196,185 in aggregate.

Employee Training and Development

Jiangsu Expressway continuously expands the development space for employee, motivates employees to be more enthusiastic, active and creative, and creates an excellent platform for employees to grow.

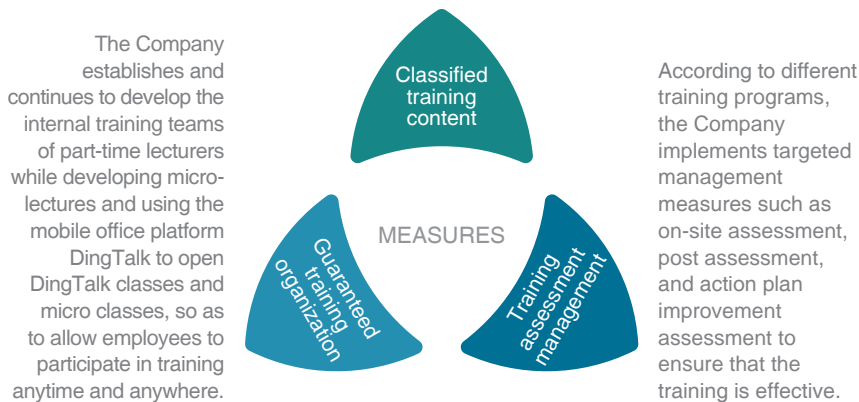
© Improving Promotion Mechanism

The Company constantly improves the promotion mechanism by clarifying the promotion process and performance appraisal management mechanism, thus providing employees with a clear career development path. In 2018, Jiangsu Expressway newly promulgated the *Regulation on Administration of Supervisors* and *Regulation on Administration of Specialist (Office) Posts*, and implemented the *Opinion on the Management of Middle-level Personnel of Jiangsu Communications Holdings Co., Ltd.*, clarifying the management and promotion systems for the Company's supervisors and personnel of higher ranks.

© Organizing Diversified Training

The Company established the *Employee Education and Training Management System* for tiered management of employee training, and organized various job skill and knowledge competitions and operation competitions. We pay attention to the development demands of employees at all levels, and fully mobilize their enthusiasm and initiative for work. In 2018, the Company's employee training coverage rate reached 100%, and each employee received an average of 18 hours of training.

Key training contents are classified with different tiers according to the professions of employees, aiming to improve employees' comprehensive management capabilities, competency, creativity, and professional knowledge.



Training management measures



In 2018, male employees were trained for an average of **17** hours, female employees were trained for an average of **19** hours; grassroots employees were trained for an average of **18** hours; mid-level employees were trained for an average of **60** hours; and senior employees were trained for an average of **128** hours.

© Supporting Employees to Survive the Transformation

Amidst the advancements of information and smart technologies and corporate transformation and upgrading, employees are faced with career development challenges such as skills upgrading and job transfer. To meet the needs of the development and transformation of the service areas and ensure smooth transfers, the Company has developed training programs for job-transfer employees and formulated the appraisal plan for the probation period so as to help them quickly learn new skills and enhance their professional competitiveness. In 2018, the Company provided pre-job training for 150 participants in the service areas.

Carrying out training on computer network and information technology to improve the professional skills of front-line employees

To improve front-line employees' information technology and skills and help them to fill their new roles, Jiangsu Expressway carried out a 7-day pilot training on computer network and information technology for 50 employees. The training enhanced the overall quality and competitiveness of employees, and cultivated the backup workforce for the operation and maintenance of the electromechanical system of Jiangsu Expressway.

Caring for Physical and Mental Health of Employees

Jiangsu Expressway advocates work-life balance. We create a cozy and happy working and leisure environment for employees, and organize a variety of cultural and sports activities to strengthen psychological care for employees and protect their physical and mental health.

© Creating a Cozy Working Environment

The Company actively improves the working environment of toll stations and service areas, optimizes and renovates hardware and software facilities of toll stations to improve the happiness of employees.



Qinglong Station creates "relaxing, quiet and cozy" dormitories, which have been well received by employees.



Kunshan Station improves the accommodation of employees and creates a comfortable living environment for them.



Yuqi Station builds a "Happy Farm" for employees.

Creating a cozy working environment for employees

© Organizing Diversified Cultural and Sports Activities

Adhering to the cultural concept of "Happy Work, Healthy Life", the Company organizes a diversified cultural and sports activities for employees to demonstrate their styles and enhance their cohesiveness.



Happy board games



“Charming Employees of Jiangsu Expressway – Demonstrating the Style with Quality Service” speech contest



The third session of fun sports game

© Caring for Physical and Mental Health of Employees

The Company formulated and promulgated the *Opinion on Establishing a Staff Psychological Guidance System to Strengthen Employees' Mental Health*, organized grassroots units to establish staff's psychological counseling centers, hired part-time psychological observers, regularly conducted learning and exchange activities for psychological observers including the Third-level Psychological Consultant Certification Training, Short-term Training Class on Behavioral Therapy and Behavioral Therapy Advanced Class, and employee psychological health lectures to relieve employees' pressure from work and life and guarantee employees' mental health.

Co-creation in virtue of Partnership

Partners have provided strong support for the development of Jiangsu Expressway, and the Company respects the interests of all partners, striving to work together with them to realize win-win cooperation. At the same time, the Company actively leverages its exemplary guiding role in the transport industry and contributes to the development of the industry.

Responsible Procurement

Jiangsu Expressway has formulated rules and regulations such as *Supplier Management Regulation*, *Provisions on the Management of Basic Information of Suppliers and Supplier Contract Fulfillment Performance Evaluation Regulation* to strengthen the social and environmental risk management of suppliers. The Company has established a supplier management database with a total of 384 suppliers of different categories. Besides, service areas of Jiangsu Expressway actively organize rental units within the service area for centralized and special trainings to enhance their service quality.

The Company continues to improve supplier procurement management rules and has formulated procurement policies such as the *Procurement Management Measures*, *Public Bidding Implementation Rules*, and *Competitive Negotiation Implementation Rules* to ensure the procurement processes are open, fair and transparent.

Disclosure	Category	Number
Number of suppliers by regions	East China	351
	South China	11
	North China	10
	Southwest China	0
	Northwest China	2
	Northeast China	3
	Central China	4
	Overseas regions	3

Number of suppliers by regions

Boosting Development of the Industry

Jiangsu Expressway actively participates in industry associations, conducts special researches and organizes visits and exchanges to share experiences with industry partners, contributing to the strategy of building Jiangsu into a province with strong transportation network, and facilitating the development and operations of expressways.

The Company actively participates in industry organizations such as the China Expressway Association, Jiangsu Province Association of Communications Enterprises, Jiangsu Province Comprehensive Transportation Society (Association) to support the development of the industry.



Measures to boost development of the industry

Building a Harmonious Community Together

In pursuit of common development of the Company and the community, Jiangsu Expressway focuses on the expectations and appeals of the community, actively carries out pairing-up assistance activities, enthusiastically participates in public welfare undertakings, and contributes to a harmonious society.

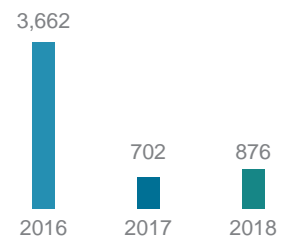
Supporting Poverty Alleviation

Winning the fight against poverty is an important part of building a moderately prosperous society in all respects. Jiangsu Expressway pays attention to the needs of economic and social development in poverty-stricken areas and contributes to the economic and social development of poverty-stricken areas by giving full play to its own advantages. In 2018, the Company invested RMB400,000 in targeted poverty alleviation and participated in the targeted poverty alleviation project of the Jiangsu Communications Holdings Co., Ltd. in Guannan County.

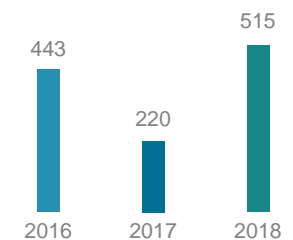
The Company actively participated in construction projects in urban and rural areas of Jiangsu Province, carried out the activity of “urban-rural pairing up for better civilization” in Jiqiao Village, Bailu Town, Guannan County, and supported ten infrastructure construction and cultural projects in Jiqiao Village. In 2018, the Company took the lead to invest RMB83,000 in seven of the ten projects. In 2019, we plan to invest RMB113,000 to complete the remaining three projects.

Public Welfare and Volunteering Activities

Jiangsu Expressway has created a good public welfare and volunteering culture and established 43 youth volunteer teams. The teams at all levels may publish public welfare and volunteering activities on the “Volunteer clock-in” APP where volunteers may register and participate in the activities that interest them, and the APP automatically records service hours of volunteers. Besides, the Company holds an award event every two years to recognize outstanding volunteers and volunteer teams. In 2018, volunteer teams of the Company with 1,201 members in total donated RMB800,000 and organized 38 public welfare activities.



Service hours of staff volunteers



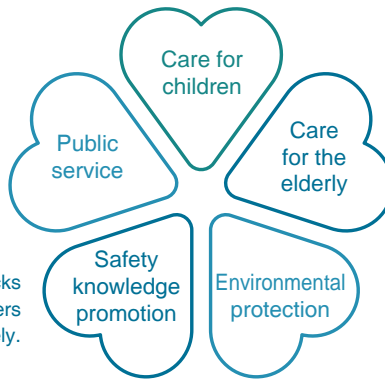
Numbers of staff volunteers in volunteer activities

Volunteering activities of Jiangsu Expressway cover public service, safety knowledge promotion, child care, elderly care, environmental protection and other aspects, spreading positive energy for jointly building a harmonious community.

The volunteers donate clothing and books to schools in poverty-stricken areas, collect donation to SOS children's villages in China, and work with special education schools to focus on children's growth.

During the Spring Festival travel rush and public holidays like the National Day holiday, volunteers of the Company provide hot drinking water, maps, medicines and vehicle repairing services for drivers and passengers on the road.

The volunteers help publicize bans on trucks and advocate safety initiatives to remind drivers and passengers to travel safely.



On the Double Ninth Festival, the volunteers visit the elderly living in the elderly care center. They talk with the elderly in their apartments, inheriting the virtues of respecting the old and bringing warmth to them.

The volunteers improve the environment for toll stations. By setting up the "Green Shanghai-Nanjing Expressway" public welfare signing table in the toll collection plaza, the volunteers tell drivers and passengers about the danger of throwing things from the car window and improve their environmental protection awareness.

Volunteering activities organized by the Company



Visiting the elderly on Double Ninth Festival



Safety knowledge promotion activity



Tree planting activity



Blood Donation



Providing drivers with hot drinking water on foggy days



Book donation campaign in SOS children's village

Appendixes

Report Description

The Board of Directors (the “Board”) and the directors of the Company guarantee that there are no false representations or misleading statements contained in, or material omissions from this report, and assume several and joint liability for the truthfulness, accuracy and completeness of the contents of this report.

Reporting Purpose

Jiangsu Expressway Company Limited has released social responsibility report annually since 2009 to disclose the Company’s social responsibility philosophy and management practices and performance of social responsibility to the shareholders, creditors, employees, customers and other stakeholders. We hope that this report will serve as a bridge for communication and interaction with all sectors of the society, whereby they could have a better understanding of the Company. At the same time, with the issuance of this report, we are subject to the oversight of all parties concerned, which will procure the Company to make further contributions to the sustainable development of the economy, society and environment.

Changes in Reporting Contents

This report is prepared in accordance with the Environmental, Social and Governance Reporting Guide released by The Stock Exchange of Hong Kong Limited (HK-ESG), and GRI Sustainability Reporting Standards issued by the Global Reporting Initiative (GRI) in 2016. In this report, we give more detailed disclosure on our management approach (DMA) towards material topics and focus on measuring our performance in respect of corresponding sustainability topics.

Reporting Period

This report mainly covers information about our management and practice from 1 January 2018 to 31 December 2018. For the purpose of compliance with the principle of complete and timely information disclosure, certain contents may extend beyond the stated period.

Release Cycle

This is an annual report and is the 10th corporate social responsibility report released by Jiangsu Expressway Company Limited. The last report was published in March 2018.

Reporting Boundary

This report covers Jiangsu Expressway and our four wholly-owned subsidiaries and three non-wholly-owned subsidiaries (consistent with the scope covered by the consolidated financial statements)

Basis of Preparation

This report is prepared in accordance with *Environmental, Social and Governance Reporting Guide* released by The Stock Exchange of Hong Kong Limited (HK-ESG), *The Guidelines for Compiling Reports of the Practice of Social Responsibilities by Enterprises and Notice on Further Improving the Information Disclosure of Poverty Alleviation by Listed Companies* released by the Shanghai Stock Exchange, *GB/T 36001 Guidance on Social Responsibility Reporting*, *GRI Sustainability Reporting Standards* released by the Global Reporting Initiative (GRI), and *ISO 26000: Guidance on Social Responsibility (2010)* released by the International Organization for Standardization (ISO), integrating relevant key guidelines and standards and highlighting the characteristics of the industry and the Company.

Information Source

All related materials, data and cases are provided by the Company and have been reviewed by relevant responsible departments.

Reference

For convenience and readability, “Jiangsu Expressway Company Limited” in this report is referred to as “Jiangsu Expressway”, “the Company” or “we”, “our” or “us”.

Access to this Report

This report is published in Chinese and English. For any discrepancy between the two versions, the Chinese version shall prevail. Electronic version of the report is available for review and downloading on the websites of the Shanghai Stock Exchange and Jiangsu Expressway (www.jsexpressway.com). If you have any suggestions about the report, please contact us:

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Tel.: 8625-84362700-301835/301838
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E-mail: jsnh@jsexpwy.com
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HK-ESG Content Index

Environmental					
Aspect		Description		Response	Page
Aspect A1: Emissions	General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste.	●	Green Development—Environmental Management System	34
	A1.1	The types of emissions and respective emissions data.	●	Green Development—Low-carbon Operation	37
	A1.2	Greenhouse gas emissions in total (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	●	Green Development—Low-carbon Operation	37
	A1.3	Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	●	Green Development—Low-carbon Operation	38
	A1.4	Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	●	Green Development—Low-carbon Operation	38
	A1.5	Description of measures to mitigate emissions and results achieved.	●	Green Development—Low-carbon Operation	37-38
	A1.6	Description of how hazardous and non-hazardous wastes are handled, reduction initiatives and results achieved.	●	Green Development—Low-carbon Operation	37-38
Aspect A2: Use of Resources	General Disclosure	Policies on the efficient use of resources, including energy, water and other raw materials.	●	Green Development—Low-carbon Operation	34-36
	A2.1	Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in '000s) and intensity (e.g. per unit of production volume, per facility).	●	Green Development—Low-carbon Operation	34-35
	A2.2	Water consumption in total and intensity (e.g. per unit of production volume, per facility).	●	Green Development—Low-carbon Operation	35
	A2.3	Description of energy use efficiency initiatives and results achieved.	●	Green Development—Low-carbon Operation	34-36
	A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency initiatives and results achieved.	●	No issue found in sourcing water	35
	A2.5	Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.	●	Not applicable due to the business type of the Company	
Aspect A3: The Environment and Natural Resources	General Disclosure	Policies on minimizing the issuer's significant impact on the environment and natural resources.	●	Green Development—Beautifying Ecological Environment	39
	A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them	●	Green Development—Beautifying Ecological Environment	39
Social					
Aspect		Description		Response	Page
Aspect B1: Employment	General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare.	●	Heartfelt Services—Sharing Development Achievements with Employees	45-46
	B1.1	Total workforce by gender, employment type, age group and geographical region.	○	Heartfelt Services—Sharing Development Achievements with Employees	45
	B1.2	Employee turnover rate by gender, age group and geographical region.	○	Heartfelt Services—Sharing Development Achievements with Employees	46
Aspect B2: Health and Safety	General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards.	●	Safe Traffic—Ensuring the Health and Safety of Employees	25
	B2.1	Number and rate of work-related fatalities.	○	Safe Traffic—Ensuring the Health and Safety of Employees	25

Aspect B2: Health and Safety	B2.2	Lost days due to work injury.	<input type="radio"/>	Safe Traffic—Ensuring the Health and Safety of Employees	25
	B2.3	Description of occupational health and safety measures adopted, how they are implemented and monitored.	<input type="radio"/>	Safe Traffic—Ensuring the Health and Safety of Employees	25
Aspect B3: Development and Training	General Disclosure	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.	<input checked="" type="radio"/>	Heartfelt Services—Sharing Development Achievements with Employees	46-47
	B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	<input type="radio"/>	Heartfelt Services—Sharing Development Achievements with Employees	47
	B3.2	The average training hours completed per employee by gender and employee category.	<input type="radio"/>	Heartfelt Services—Sharing Development Achievements with Employees	47
Aspect B4: Labor Standards	General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labour.	<input checked="" type="radio"/>	Heartfelt Services—Sharing Development Achievements with Employees	45
	B4.1	Description of measures to review employment practices to avoid child and forced labor.	<input type="radio"/>	No occurrence of such violation during the reporting period	45
	B4.2	Description of steps taken to eliminate such practices when discovered.	<input type="radio"/>		
Aspect B5: Supply Chain Management	General Disclosure	Policies on managing environmental and social risks of the supply chain.	<input checked="" type="radio"/>	Heartfelt Services—Co-creation in Virtue of Partnership	50
	B5.1	Number of suppliers by geographical region.	<input type="radio"/>	Heartfelt Services—Co-creation in Virtue of Partnership	50
	B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, how they are implemented and monitored.	<input type="radio"/>	Heartfelt Services—Co-creation in Virtue of Partnership	50
Aspect B6: Product Responsibility	General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress.	<input checked="" type="radio"/>	Safe Traffic—Safeguarding Road Safety	22-24
	B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	<input type="radio"/>	Not applicable due to the business type of the Company	
	B6.2	Number of products and service related complaints received and how they are dealt with.	<input type="radio"/>	Heartfelt Services—Quality Customer Services	44
	B6.3	Description of practices relating to observing and protecting intellectual property rights.	<input type="radio"/>	No data	
	B6.4	Description of quality assurance process and recall procedures.	<input type="radio"/>	Not applicable due to the business type of the Company	
	B6.5	Description of consumer data protection and privacy policies, how they are implemented and monitored.	<input type="radio"/>	Innovative Growth—Informatization	17
Aspect B7: Anti-corruption	General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering.	<input checked="" type="radio"/>	Strategy and Governance—Anti-corruption Management	9
	B7.1	Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases.	<input type="radio"/>	No data	
	B7.2	Description of preventive measures and whistle-blowing procedures, how they are implemented and monitored.	<input type="radio"/>	Strategy and Governance—Anti-corruption Management	9
Aspect B8: Community Investment	General Disclosure	Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests.	<input checked="" type="radio"/>	Heartfelt Services—Building a Harmonious Community Together	51-52
	B8.1	Focus areas of contribution (e.g. education, environmental concerns, labor needs, health, culture, sport).	<input type="radio"/>	Heartfelt Services—Building a Harmonious Community Together	51-52
	B8.2	Resources contributed (e.g. money or time) to the focus area.	<input type="radio"/>	Heartfelt Services—Building a Harmonious Community Together	51-52

Feedback Form

Thank you for reading our 2018 Social Responsibility Report. We highly value and are looking forward to receiving your feedback on our social responsibility performance and this report. Your suggestions and comments are valuable basis for us to continue to improve the quality of our information disclosure on corporate social responsibility and to promote our corporate social responsibility management and practices. Please complete the form below and send it to us via mail or e-mail. We wholeheartedly appreciate your valuable suggestions!

What is your overall impression of this report?

☐ Very good ☐ Good ☐ Average ☐ Poor ☐ Very poor

How is the structure of this report?

☐ Well-designed ☐ Reasonable ☐ Average ☐ Ill-designed ☐ Unreasonable

How about the readability of this report?

☐ Very easy ☐ Easy ☐ Average ☐ Very hard ☐ Obscure

Which responsibility issues are your top concerns? (Multiple choice)

Governance

☐ Compliance ☐ Information disclosure and communication ☐ Risk management

Economy

☐ Economic performance ☐ Reform and transformation ☐ Road safety
☐ Smooth traffic ☐ Road quality ☐ Intelligent service
☐ Complaints handling and dispute resolution ☐ Customer experience enhancement

Environment

☐ Green maintenance ☐ Pollution prevention and treatment ☐ Low-carbon operation
☐ Natural ecology protection and beautification

Society

☐ Partner support ☐ Customer safety and health ☐ Labor and employment relations
☐ Working conditions and labor protection ☐ Occupational health and safety
☐ Employee training and development ☐ Community engagement

How is the disclosure of issues of your concern?

☐ Very comprehensive ☐ Comprehensive ☐ Touched hereupon ☐ Partially involved
☐ Barely mentioned

What kind of additional information do you expect to see in this report?

What are your suggestions on our corporate social responsibility performance or this report:

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