



Go Extra Mile

Taiwan High Speed Rail
Sustainability Report
2023

Be There



THSR Sustainability Report 2023

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About this Report

In 2009, Taiwan High Speed Rail Corporation (hereinafter referred to as "THSRC") released the first ever "THSRC Corporate Social Responsibility White Paper" to disclose its performance and actions in social responsibility. In response to international trends and compliance with non-financial information disclosure standards in Taiwan, it was renamed as "THSRC Sustainability Report" in accordance with the "Corporate Governance 3.0 - Sustainable Development Roadmap" issued by the Financial Supervisory Commission in 2022. This report is the eleventh sustainability report issued by THSRC, the last of which was issued in June 2023. THSRC continues to enhance its operational capabilities and quality of service by demonstrating its efforts locally and expectations internationally through the 2023 Sustainability Report. In the future, the Sustainability reports will be published periodically every year.

Current version: Issued in August 2024

Reporting period

This report discloses the corporate sustainability results and performance of THSRC in 2023 (from January 1, 2023 to December 31, 2023). However, part of the content involves trend comparison, and historical data will be revealed at the same time.

Reporting Scope, Standards and Boundaries

This report complies with the requirements of the core option of the 2021 edition of the Global Reporting Initiative Sustainability Reporting Standards (referred to as "GRI Standards") of the Global Sustainability Standards Board (GSSB), the "Rules Governing the Preparation and Filing of Sustainability Reports by TWSE Listed Companies", and indicators issued by the Sustainability Accounting Standards Board (SASB) for the Rail Transportation industry, and discloses based on the four core elements of the Task Force on Climate-related Financial Disclosures (TCFD). In addition, it has been verified by a third-party certification body, the British Standards Institute (BSI) that this report meets the core options of the GRI Standard and complies the AA1000AS Version 3 Type 2 high-level assurance. In order to continuously improve the disclosure quality of sustainable information, this report has also been verified by the — British Standards Institution (BSI), a third-party certification body, to confirm that this report follows the 15 criteria of the Sustainable Accounting Standards Board (SASB) Announcement Rail Transportation and complies the AA1000AS Version 3 Type 2 moderate-level assurance, both of which are included in the appendix to this report.

Based on the requirements of the GRI Standards, this report discloses THSRC's responses to material topics in economic, environmental, and social aspects, as well as related performance.

The scope of this report is consistent with the financial statements. There is no significant difference between this report and the previous edition in terms of scope and quantitative data measurement methods. Any difference in terms of scope or data measurement from the previous edition will be indicated in the particular paragraph. All the statistical data disclosed in this report were compiled and provided by our internal first-level units. Financial performance data were information published publicly upon attestation by certified public accountants ("CPAs") and were consistent with data in THSRC's annual reports. The basis for calculating and estimating environmental data was derived from public data provided by the government and was calculated by THSRC. All the data related to the amount in this report are calculated in New Taiwan Dollars.



If you have any suggestions or questions about this report, please feel free to contact us at:

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Website



ESG Section

Message from the Chairman

In recent years, global enterprises are facing many challenges, such as the impact of extreme climate, the unknown risks brought by generative AI, rising of inflation and interest rates, etc., which are testing the resilience of business operations. Among them, the frequency and amplitude of heavy rain, floods, high temperatures and droughts exacerbated by extreme weather have a direct impact on the safety of the transportation industry around the world. Facing of environment challenges, how can we collaborate with the industrial chain to continuously improve transportation safety and system resilience? How can we further create a friendly workplace and retain excellent talents within the company? It has become a sustainable issue that THSRC must face seriously.

In confront with corporate sustainability challenges, THSRC is committed to aligning with international trends and following the "5-year medium- and long-term strategic plan" to integrate ESG spirit into various businesses. Through our continuous efforts, we have finally achieved some results in digital transformation, revenue improvement, strengthen supply chain integrity and net-zero carbon reduction in recent years. We have also earned many recognitions around the world, such as: THSRC continues to be included in the "Taiwan Sustainability Index" constituent stocks, and in 2024, it has been ranked in the top 5% of listed companies in the "Corporate Governance Assessment" of the Stock Exchange for seven consecutive years. In addition, following its first selection in the "Top 100 Global Sustainable Enterprises" by Canada Corporate Knights in 2023, THSRC was not only selected for the second time this year, but also jumped from ninth in the world in 2023 to fourth in the world in 2024, and continued to score high in various selection indicators such as low carbon, environmental protection, and sustainability.

At the same time, in response to the impact of climate change, THSRC has also actively applied innovation technologies to improve transportation safety, such as the introduction intelligent drone assisted bridge inspection operation in recent years, and turnout monitoring related system, which greatly improves the safety and maintenance efficiency of the system, and creates a safer and more reliable transportation system for passengers. At the same time, we are also working with industry, government, academia and local transport industry partners to build a more resilient high-speed rail system.

On the road of pursuing environmental sustainability, social sustainability and corporate sustainability, THSRC sincerely thanks the support from passengers and the positive affirmation from all sectors of society. We also share our achievements in promoting various sustainability issues with all stakeholders through the disclosure of the annual sustainability report, and hopes that all parties will continue to stand with us, together concern for environmental sustainability and practice corporate social responsibility, so that THSRC can start from green transportation and practice step by step to achieve the vision of "To be the platform for Advancement and Enjoyment".



Chairman *Y. C. Chiang*

Message from the President

Looking back on 2023 and the first half of 2024, benefiting from the vigorous development of the tourism industry driven by the post-epidemic recovery, THSRC has actively played the advantages of the backbone of transportation to work with local partners to build "Journey with THSR, Discover Taiwan" into a leading national tourism brand. We have launched great variety of tourism products, combined with local featured attractions, connecting with accommodation, car rental, tours and even tickets and other components, creating substantial discounts for tourists through joint marketing. We look forward to not only lead the trend of national tourism, but also let more domestic and foreign tourists experience the beauty of Taiwan by taking the "green transportation" by THSR!

At the same time, in order to bring passengers a better riding experience, in response to the trend of aging society and the development of digital marketing, THSRC has also actively launched various passenger-friendly service measures, including enlarging the font of the operation interface of the automatic ticket machine, adding carbon footprint record to the mobile ticketing App T-EX, and adding a function to connect with the smart watch to directly scan the barcode to enter the station; Since July last year, we have launched a convenient service for passengers to skip the line and use the T-EX App to buy non-reserved seat tickets directly after arriving at the station. In addition, after continuous efforts, passengers who use the Respect for the Elderly/Caring Ticket can now easily purchase and collect tickets through the automatic ticket vending machine, T-EX or convenience stores with more than 10,000 cooperation with the HSR as long as the annotation is completed through the station window, all of which are to meet the passengers' expectations better for the high-quality service of the HSR.

As the most important transportations in the Western Corridor, THSRC not only provides passengers with safe and considerate travel services, but also responds to passengers' support and social expectations through specific measures such as continuously creating better journeys and improving travel services. It also takes the United Nations Sustainable Development Goals (SDGs) as the key direction of THSRC sustainable development, takes scientific and technological innovation and digital transformation as the main axis, actively fulfills the commitment of sustainable development, and looks forward to work with value chain partners and stakeholders to create a better and sustainable future.



President 



2023

Performance Highlights

Professional Transportation



- ◆ The punctuality rate is **99.58%**, and the average delay time is only about **0.19** minutes.
- ◆ Since the commencement of operations to the end of **2023**, the number of casualties among passengers due to traffic accidents is **0**.
- ◆ A total of **1,800** sets of turnout inspections were completed, with **8,241** km of routine track inspections and track irregularity inspections completed.
- ◆ **100** disaster prevention and rescue drills (training) were completed.

Enhancing Local Connection

Taiwan



- ◆ Tourism Project has been promoted in 2023 and generated nearly **4.025** million tourists, which is **38%** increase over last year.
- ◆ THSRC introduced Sustainable Supply Chain management in 2023, which has updated new policies, codes of conduct and has carried out hierarchical management of supply chains based on the guidance. THSRC achieved **99%** of local labor service procurement, and more than **60%** of materials procurement.
- ◆ In 2023, the amount of green procurement has reached to NT\$ **380** million, accounting for **3%** of the total procurement value.
- ◆ From 2011 to 2023, THSRC worked with a total of **135** alternative material development suppliers, saving a total amount of nearly NT\$ **3.65** billion.
- ◆ THSRC entrusted China Steel Corporation to develop and manufacture the "Overhead Catenary System Maintenance Vehicle" and completed the delivery of **12** engineering vehicles in **December 2023**.
- ◆ Actively sign memorandums of industry-academia cooperation with domestic colleges and universities, and cooperate with **15** colleges and universities to promote internship programs in 2023.

Innovative Technology

Technology



- ◆ The cumulative number of downloads of the THSRC T-EX mobile ticketing app has exceeded **14.99** million.
- ◆ The average accuracy of Artificial Intelligent Customer Service was **95.7%**.
- ◆ No personal information leakage in 2023.
- ◆ Completed the preparation of the "Application of intelligent drone for HSR bridge inspection maintenance system" and will save **triple** of the manpower and time after it is officially launched in 2024
- ◆ Completed the Preliminary work planning of the "Smart Cloud for Safety " and promoted the operation of the security data cloud platform and security management tools

Sustainable Care

Touch



- ◆ Expanded the GHG inventory to all locations (stations, depots, headquarters, Taoyuan Operation Management Center, and main lines (trains and roadside equipment)) and obtained **ISO 14064-1** verification. Based on the calculation of passenger-kilometer, THSRC significantly reduced carbon dioxide emissions by **1,042,859** metric tons compared to passenger cars, which is equivalent to the carbon uptake of 2,681 Da-An Forest Park.
- ◆ The annual solar power generation of the four maintenance depots and six stations reached **9,673.471** MWh.
- ◆ THSRC continues to sponsor NT\$ **1.143** million to Jacana Ecological Education Park every year, with a cumulative amount of NT\$ **69.89** million.
- ◆ THSRC raised around NT\$ **69.89** million under the "The High-Speed Educational Endowment Program".
- ◆ From 2009 to 2023, the "THSRC Smiling Train Program" aided **863** disadvantaged groups with a total of **148,504** participants.
- ◆ A total of **2,328** people participated in the "Annual THSRC Winter Outreach Blood Drive" event, with **3,503** units of blood raised.





Stakeholders and Material Topics





Stakeholder Identification and Engagement

THSRC refers to the AA1000 Stakeholder Identification Standard to identify eight types of important stakeholders. We ensure that we truthfully respond to the demands and expectations of different stakeholders in our daily operations through diverse engagement channels on a regular and irregular basis.

In addition, regarding the engagement between THSRC and various stakeholders and the handling of major disputes, a report of the Board of directors will be regularly submitted every year. In 2023, engagement with various stakeholders and the handling of major disputes have been submitted to the 3rd session of the 10th Board of Directors on June 20, 2023, the 5th session of the 10th Board of Directors on September 13, 2023 and the 6th session of the 10th Board of Directors on October 18, 2023.

Performance of Engagement with Important Stakeholders

Type	Priority Issues	Engagement Channel (Frequency)	Engagement Performance in 2023
 Passengers	<ul style="list-style-type: none"> Transportation safety management Customer relationship and quality management 	<ul style="list-style-type: none"> Publications / Digital tools (Once a month / Non-periodic) Company website / Dedicated page (Once a month / Non-periodic) E-mail (Non-periodic) 	<ul style="list-style-type: none"> The quality month activities have been organized in November 2023, including proposal improvement awards, two preliminary rounds and one final of the quality control circle competition, and four special lectures on quality issues. In 2023, we completed the response and processing of about 750,000 customer inquiries or feedback. In the 2023 customer satisfaction survey, the overall satisfaction rate reached 93%, and the average service satisfaction rate reached 94% in the four major service directions (ticketing service, station facilities and services, train equipment and services, and station transfer environment and services). The Company has published 168 issues of TLife magazine as of December 2023. The TLife website was launched in October 2021, which provides digital services. Users can read the current and past 24 issues of the magazine content anytime and anywhere outside the THSRC coverage area, and further search, bookmark, and share TLife content.
 Community Residents	<ul style="list-style-type: none"> Transportation safety management Privacy and Information Security Management Customer relationship and quality management 	<ul style="list-style-type: none"> Interviews / Exchange of ideas / Visits (Non-periodic) 	<ul style="list-style-type: none"> Arranged telephone or in-person visits, or ad-hoc visits to schools, enterprises and community development associations affiliated to THSRC to interact with local opinion leaders to maintain good local relations. Handled 16 cases of noise complaints from residents along the route, and effectively communicated the principles of noise prevention measures through surveys and interviews, which only 1 case in Zhongli District, Taoyuan City required noise improvement according to the monitoring results of the Environmental Protection Bureau. THSRC gives full play to fulfill the spirit of corporate social responsibility, spreads love through blood donation, and appeals to the public to actively respond to blood donation to help others. In 2023, a total of 2,328 people participated, with 3,503 units of blood raised. Since its inception in 2012, over 18,000 people have participated, with a total of 26,246 units of blood raised.
 Media	<ul style="list-style-type: none"> Transportation safety management Corporate Governance and Operational Performance Privacy and Information Security Management 	<ul style="list-style-type: none"> Media contacts (Non-periodic) 	<ul style="list-style-type: none"> Issued 106 press releases and news bulletins, organized 13 press conferences and media events, clarified erroneous reports 16 times, handled 97 media inquiries, published 35 feature reports, and contacted the media 17 times throughout the year.
 Employees	<ul style="list-style-type: none"> Transportation safety management Corporate Governance and Operational Performance Employee care and labor protection 	<ul style="list-style-type: none"> Internal / External meetings (Once a month / Four times a year) Publications / Digital tools (Once a month) Internal / External activities (Once a year) 	<ul style="list-style-type: none"> Conducted a total of about 48 Town Hall meetings internally at 12 HSR stations throughout the year. Conducted a total of about 93 Town Hall meetings jointly at operations division of the North District, Central District, and South District and preparation division of the North District and South District. Business units and 18 business sites hold labor conferences every quarter in accordance with the law, and a total of 76 labor conferences are held throughout the year.






Type	Priority Issues	Engagement Channel (Frequency)	Engagement Performance in 2023
 <p>Shareholders and Investors (Note)</p>	<ul style="list-style-type: none"> Transportation Safety Management Regulatory compliance Privacy and Information Security Management 	<ul style="list-style-type: none"> Shareholders' meeting / Investor conference (Non-periodic / Once a month / Once a year) Internal / External Reports (Non-periodic/Once a year) 	<ul style="list-style-type: none"> Investor Conference on March 20, 2023 General Meeting of Shareholders on May 25, 2023 Investor Conference on June 16, 2023 Investor Conference on September 19, 2023 Investor Conference on December 4, 2023 Investor Conference on December 19, 2023
 <p>Partners (including Non-Governmental Organizations and Schools)</p>	<ul style="list-style-type: none"> Transportation safety management Prorate Governance and Operational Performance Privacy and Information Security Management 	<ul style="list-style-type: none"> Internal / External meetings (Non-periodic / Four times a year) 	<ul style="list-style-type: none"> The High-Speed Educational Endowment Program in 2023 cooperates with the After School Association of Taiwan, raising more than NT\$6.8 million. In 2023, the HSR Camp handled 12 phases, attracting 9,592 online registrations and a total of 299 students to participate in the event.
 <p>Suppliers and Contractors</p>	<ul style="list-style-type: none"> Transportation safety management Privacy and Information Security Management Regulatory compliance 	<ul style="list-style-type: none"> Internal / External meetings (Once a month / Non-periodic) Inspection / Repair / Examination / Survey / Maintenance (Non-periodic / Once a Month / Twice a Month / Once a Year) Internal / External activities (Once a year) 	<ul style="list-style-type: none"> Passed ISO 9001:2015 quality management system verification. Contractors submitted monthly manufacturer reports and held technical report meetings each month. Complete annual damage prevention inspection survey. In 2023, the optimized version of THSRC supply chain management policy and code of conduct has been completed.
 <p>Government and Competent Authorities</p>	<ul style="list-style-type: none"> Transportation safety management Regulatory compliance Customer relationship and quality management 	<ul style="list-style-type: none"> Internal / External meetings (Once a month) Internal / External reports (Four times a year) Inspection / Repair / Examination / Survey / Maintenance (Once a year) 	<ul style="list-style-type: none"> Passed the annual regular THSRC operation inspection conducted by the Ministry of Transportation and Engagements / Railway Bureau In 2023, THSRC has reported monthly to Railway Bureau, MOTC about 1 general traffic accident and 35 abnormal driving incidents. From June to December 2023, in cooperation with the Railway Bureau, MOTC, the "Safety Management System Effectiveness Inspection" has been carried out on a trial basis, and the Railway Bureau would plan to carry out the safety management system effectiveness inspection operation of domestic railway institutions based on this trial experience. THSRC reported to the Railway Bureau in accordance with laws and regulations.

Note : 1. THSRC was officially listed on the Taiwan Stock Exchange on October 27, 2016, and was the first rail transportation operated to be listed in Taiwan. As of March 25, 2024, the shareholding structure was as follows: Government agencies (45.13%), other juridical persons (17.93%), foreign institutions and foreigners (10.39%), individuals (14.71%), financial institutions (8.29%), and state-owned enterprises (3.55%).
 2. THSRC regularly reviews and confirms the effectiveness of stakeholder engagement through diverse engagement channels, and improves relevant mechanisms and implementation based on the results.

Identification and Responses to Material Topics

THSRC continues to pay attention to the international sustainability development trend and sustainability disclosure standards, and refers to the material issues of international benchmark enterprises. The THSRC Sustainability Report follows the GRI General Guidelines 2021 "GRI 3: Material Topics" issued by the Global Sustainability Standards Council to identify material topics and carries out a major thematic analysis based on the following steps to assess the significance of the positive and negative impacts of Material Topics in terms of economy, environment and human rights, so as to confirm the scope of the report's disclosure and review the effectiveness of sustainable business, and respond to the needs of multiple stakeholders.

Process to determine material topics

Analysis Steps	Description	Stakeholder and Expert Opinion Considerations
 Identify the organization's context	In order to ensure the material topics keep pace with the times, it also covers the material topics of focus of the railway transportation industry. Based on the list of 13 sustainability issues identified in 2022, THSRC refers to the major themes of the railway transportation industry listed by the domestic and foreign regulations and trends and the Sustainable Accounting Standards Board (SASB), the sustainability requirements of international sustainability evaluation such as the Dow Jones Sustainability Index (DJSI), domestic regulations and trends, and the major themes disclosed by international railway transportation benchmarking companies, and confirmed that these 13 sustainability issues are still in line with the industry and global sustainability trends.	External expert sustainability consultants review sustainability issues and advise on how to define the economic, environmental and social impacts of the issues
 Review the definition of actual and potential impacts	Re-examine the 13 sustainability issues and refocus them according to their substance and potential positive and negative impacts. After refocusing in 2023, the list of 13 issues defined 12 positive influences and 10 negative ones, total 22 positive and negative ones were separately identified.	
 Assess and prioritize the most significance of the impacts	Through the THSRC Sustainability Group, the impact questionnaire was distributed to internal and external stakeholders to collect the materiality ranking of positive and negative impacts of stakeholder groups, so as to subsequently adjust the positive impact and the degree of negative impact. The magnitude of the impact is based on the significance and scale of the impact of the issue on the economy, the environment and people (including human rights). At the same time, the feedback from internal due diligence channels is incorporated to complete the assessment of the probability of occurrence of actual and potential impact issues, and adjust the probability of occurrence of positive and negative impacts.	Through the stakeholder impact questionnaire, due diligence channels and the opinions of stakeholders in daily engagement, the significance of sustainability issues is comprehensively assessed and adjusted. Including, but not limited to: <ul style="list-style-type: none"> • Travelers: refer to customer satisfaction survey to confirm whether related rights and interests, such as privacy or other customer rights and interests; • Employees: refer to their opinions and complaints to confirm whether they have been involved in human rights violations in the workplace; • Suppliers: Refer to their opinions, complaints, and audit results to determine if corporate governance, environmental pollution and labor human rights violations are involved; • Regulator: Adjust the importance of the issue in light of sustainability and corporate governance relevant assessment or sanctions, as well as policy intentions (such as committing to net-zero emissions by 2050, promoting local manufacturing of the railway transportation industry, local procurement, labor human rights etc.)
 Adjust and determine material topics for reporting	Comprehensively considering the results of the questionnaire and due diligence, the ranking of materiality was appropriately adjusted, and it was divided into key topics (6 items), important topics (5 items) and continuous focus topics (2 items) in order. A total of 13 Material Topics were selected. Among them, "key topics" and "important topics" form the scope of materiality disclosures in this report. On the other hand, items in "topics of continuous concern" are regarded as non-material topics, where in principle, these items will not be disclosed in this report. However, non-material topics which significantly impact material topics will still be properly explained and disclosed in this report.	
 Approval and determined material topics	Submit the results of the analysis to the Corporate Governance and Nomination Committee and, ultimately, to the Board of Directors to identify the key themes of this year's Sustainability Report.	

Major analysis results and major thematic matrices




Based on the results of the 2023 assessment, a total of five positive impacts are key issues, five impacts are important issues and two impacts are rated as ongoing concerns; for negative impacts, a total of five are key issues, one is important issue and four are ongoing concerns. Regardless of whether the topic is positive or negative, as long as one impact is a key topic, the topic will still be identified as a key topic.

In the major theme analysis process, the THSRC has taken into account suggestions from stakeholders and external experts that the sustainable issues above the material topics (including) should be identified as the topics to be disclosed in this annual report. This year, there are 6 key topics, 5 material topics and 2 topics of continuous interest, as shown below.

● Key Topic ● Important Topic ● Topics of Continuous Concern

	Material Topics	Positive Impacts	Negative Impacts
Key Topic	Transportation Safety Management	● Transportation Safety Management	● Transportation Accidents and Disasters
	Corporate Governance and Operational Performance	● Corporate Governance and Operational Performance	● Corporate Governance and Mismanagement
	Regulatory Compliance	-	● Violation of Legal Regulations
	Quality of Service and Customer Relationship Management	● Service Quality and Inclusiveness	● Damage to Customer Equity
	Employee Care and Labor Protection	● Labour Protection and Healthy and Equitable Workplace	● Occupational Accidents and Violations of Human Rights in the Workplace
	Technological Innovation	● Technological Innovation	-
Important Topic	Privacy and Information Security Management	● Information Security Management	● Business and Customer Information Leaks
	Climate Change Mitigation and Adaptation	● Climate Change Adaptation and Management	● Greenhouse Gas Emissions
	Sustainable Supply Chain Management	● Improving Supplier ESG Awareness and Management	● Supplier Mismanagement
	Local Economic Development and Human Concern	● Local Economic Development and Human Concern	-
	Talent Recruitment and Development	● Talent Development and Nurturing	-
Topics of Continuous Concern	Ecological and Community Impact Management	● Biological Conservation and Diversity	● Ecological and Community Impact
	Resource Use and Management	● Resource Use and Management	● Energy Consumption

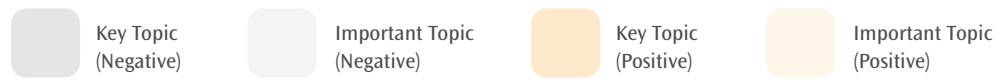
For an explanation of the changes in the topic of sustainability compared with last year's analysis is given in the table below.

Aspects	Sustainability theme	2023	2022
 Governance (G)	Sustainable supply chain management	Important topic	Key Topics
	Description of the change: In view of the feedback from multiple stakeholders, THSRC's suppliers have had no major violation in the past, and the impact group is more single-oriented, considering its impact on the environment and human rights, so downgrade sustainable supply chain management as an important topic.		
 Society (S)	Talent recruitment and development	Important topic	Topics of Continuous Concern
	Description of the change: In view of the feedback from multiple stakeholders and the results of due diligence, THSRC has been investing in the cultivation of local talents in the long term, and comprehensively considering its impact on the environment and human rights, so the Talent recruitment and development has become an important topic.		
 Environment (E)	Climate change mitigation and adaptation	Important topic	Key Topic
	Description of the change: In view of the feedback from multiple stakeholders and the results of due diligence, THSRC is relatively low-carbon emission compared with other transportation vehicles, and has a relatively small impact on the external environment, considering its impact on the environment and human rights, so downgrade Climate change mitigation and adaptation as an important topic.		

Sustainability Value Chain Impact Management

Materiality	Major Topics	Corresponding to GRI Topic	Corresponding SDGs	Corresponding to Chapters or Subchapter	Page No	Value Chain Boundaries Impacted by Each Topic					
						Occur Directly in THSRC	Occur Through THSRC's Commercial Relationships		Occur Through THSRC's Other Direct Relationships		
						THSRC	Passengers	Suppliers and Contractors	Shareholders and Investors	Partners	Government and Competent Authorities
Key Topics	Transportation Safety Management	Customized material topic	SDG 9	Safety Services and Responsible Transportation	28	●		●			●
	Corporate Governance and Operational Performance	GRI 201: Economic Performance GRI 205: Anti-corruption GRI 405: Diversity and Equal Opportunity	SDG 8 SDG 16	Operational Performance Sustainable Governance and Integrity Management	24 18	●		●		●	●
	Regulatory Compliance	Customized material topic	SDG 16	Sustainable Governance and Integrity Management	18	●				●	●
	Service Quality and Customer Relationship Management	GRI 416: Customize major topic	SDG 8 SDG 9 SDG 11	Convenience, Attentiveness, and Maintaining Relationships Smooth Travel in Adherence to Commitment	40 34	●	●	●			
	Employee Care and Labor Protection	GRI 401: Employment GRI 402: Labor-Management Relations GRI 403: Occupational Health and Safety (2018) GRI 407: Freedom of Association and Collective Bargaining	SDG 8	Operational Performance Nurturing Talent and Value Cultivation Protection of Rights and Considerate Care	24 60 66	●		●			●
	Technological Innovation	Customized material topic	SDG 9	Sincere Services and Intelligent Transportation	38	●		●			
Important Topic	Privacy and Information Security Management	GRI 418: Customer Privacy	SDG 9	Convenience, Attentiveness, and Maintaining Relationships	40	●					
	Climate Change Mitigation and Adaptation	GRI 305: Emissions	SDG 13	Low-carbon Train Operation and Environmental Sustainability	52	●		●			
	Sustainable Supply Chain Management	GRI 204: Procurement Practices GRI 414: Supplier Social Assessment	SDG 8 SDG 17	Partner Relationship Management and Local Supply	46	●		●			●
	Local Economic Development and Human Concern	GRI 203: Indirect Economic Impacts	SDG 4 SDG 8 SDG 17	Partner Relationship Management and Local Supply Carrying for Society and Developing Local Area	46 71	●		●			●
	Talent Recruitment and Development	GRI 202: Market Presence GRI 401: Employment GRI 402: Labor-Management Relations GRI 403: Occupational Safety GRI 404: Training and Education	SDG 4 SDG 8	Nurturing Talent and Value Cultivation	60	●					
Topics of Continuous Concern	Ecological and Community Impact Management	GRI 305: Emissions GRI 413: Local Communities	SDG 9 SDG 11	Smooth Travel in Adherence to Commitment Carrying for Society and Developing Local Area	34 71	●				●	●
	Resource Use and Management	GRI 302: Energy GRI 303: Water and Effluent (2018) GRI 306: Effluents and Waste	SDG 7 SDG 12	Low-carbon Train Operation and Environmental Sustainability	51	●					

Materiality Matrix (integration of positive and negative impacts)



List of Material Topics and Impacts Description

Material Topics	Redefine and the Impacts	Positive / Negative Impact	Impact Description (Economy / Environment / People)
Transportation Safety Management	Transportation Security and Management	Positive	<ul style="list-style-type: none"> People ▶ Passengers and the industry can enhance the convenience of their life travel business through THSR transportation services. Economy ▶ By continuing to provide safe transportation, the urban-rural/industrial gap can be reduced, contributing to rural economic/tourism development.
	Transportation accidents and disasters	Negative	<ul style="list-style-type: none"> People ▶ Passengers, community residents, employees, etc. are injured due to transportation accidents and influence their safety. Economy ▶ The economic activities of urban and rural areas along the transportation routes are affected by the reduction of number of train services due to transportation accidents and disasters; the rights and interests of shareholders, employees and stakeholders are damaged by compensation or even loss of annual revenue due to transportation accidents and disasters. Environment ▶ Transportation accidents or disasters resulting in the destruction of the natural ecological environment or habitat of species along the route.
Corporate Governance and Operational Performance	Corporate Governance and Operational Performance	Positive	<ul style="list-style-type: none"> Economy ▶ The company's good operating performance and continuous profitability can create higher economic value for shareholders, employees and other related parties.
	Corporate Governance and Mismanagement	Negative	<ul style="list-style-type: none"> Economy ▶ Due to corporate mismanagement and gross negligence, or dishonesty, corruption, fraud or fraud, affecting the operation of the company, infringing the rights and interests of customers and other related parties.
Regulatory Compliance	Violation of Legal Regulations	Negative	<ul style="list-style-type: none"> People ▶ Cause damage to the rights and interests of customers, employees, or other stakeholders by violating relevant social and labor laws and regulations. Economy ▶ Violation of the relevant laws and regulations of the regulator on corporate governance, resulting in moral integrity and other governance-related negligence, thereby affecting the rights and interests of stakeholders. Environment ▶ Environmental pollution or impact due to violation of environmental laws and regulations.
Quality of Service and Customer Relationship Management	Service Quality and Inclusiveness	Positive	<ul style="list-style-type: none"> People / Economy ▶ Improve and optimize the quality of software and hardware services, provide the travel services and quality required by disadvantaged, elderly and multi-ethnic passengers, and increase the utilization rate of all passengers. Economy ▶ Providing high-quality products and services, continuously optimizing the quality of software and hardware services, and improving transportation planning can create higher economic value for shareholders, employees and other related parties.
	Damage to customer equity	Negative	<ul style="list-style-type: none"> People ▶ Customer rights and interests are damaged or complaints are filed due to the failure to effectively implement fair hospitality, or due to poor service quality in the transportation process, station, and transfer system.
Employee Care and Labor Protection	Labor Protection and Healthy and Equitable Workplace	Positive	<ul style="list-style-type: none"> People ▶ Improve the quality of work by continuously optimizing the work environment and safety and health, and providing employees with a good and healthy work environment. And, provide a friendly and good environment for women/disadvantaged/multi-ethnic groups to create jobs.
	Occupational Accidents and Violations of Human Rights in the Workplace	Negative	<ul style="list-style-type: none"> People ▶ Because of gender and other forms of discrimination, the rights and interests of employees at work are infringed; and due to labor rights and interests issues such as overtime and forced labor, as well as unblocked channels of labor consultation and communication, the rights and interests of employees at work are damaged. Failure to provide a safe and healthy work environment and safety, resulting in work accidents or occupational injuries, affecting employees' labor equity and interests, and causing damage to employees' physical and mental health.
Technological innovation	Technological innovation	Positive	<ul style="list-style-type: none"> People ▶ Improve customer convenience in accessing and using transportation services by providing artificial intelligence services. Economy ▶ Improve the convenience and digitization of the entire rail transportation industry. Environment ▶ Reduce energy consumption by providing artificial intelligence services.
Privacy and Information Security Management	Information Security Management	Positive	<ul style="list-style-type: none"> People ▶ By implementing the security management systems and tools, together with upgrading software and hardware, the passengers and corporate sensitive data are prevented from leakage and equity of stakeholders are protected.
	Business and customer information leaks	Negative	<ul style="list-style-type: none"> People ▶ Due to security breaches or hacking attacks, customer personal information or enterprise sensitive information is leaked, infringing the rights and interests of relevant stakeholders.

Material Topics	Redefine and the Impact	Positive / Negative Impact	Impact Description (Economy / Environment / People)
Climate change mitigation and adaptation	Climate Change Adaptation and Management	Positive	<p>Economy ▶ In response to climate change, we will disclose relevant financial information, identify climate-related risks and opportunities, and develop relevant strategies to meet the requirements of relevant authorities for corporate climate financial disclosure, comply with the government's Greenhouse Gas Reduction Management Law, reduce carbon fee expenditure, accelerate the global low-carbon transition, and move the entire industrial chain towards a zero-carbon economy.</p> <p>Environment ▶ Implementing climate governance and promoting strategies and management measures (such as introducing carbon inventories and carbon reduction plans or strengthening transportation systems to improve overall efficiency) will help reduce environmental impacts such as carbon emissions and waste in the overall industry.</p>
	Greenhouse Gas Emissions	Negative	Economy / People /Environment ▶ The intensification of the greenhouse effect due to greenhouse gas emissions, resulting in climate-related disasters, which will have an impact on the economy, environment and people.
Sustainable supply chain management	Improving Supplier ESG Awareness and Management	Positive	<p>People ▶ Actions related to the joint promotion of the supply chain to improve workers' rights (such as regularly holding workplaces safety and health lectures to improve workplace health and safety).</p> <p>Economy ▶ Improve supplier ESG awareness and management through supplier conferences, lectures or other management methods to promote the overall economic resilience of the industrial chain.</p> <p>Environment ▶ Work with suppliers to promote green and low-carbon supply chains, continuously reduce carbon and waste emissions, and maximize energy efficiency to address the risks of climate change and resource depletion.</p>
	Supplier Management (Mismanagement)	Negative	<p>People ▶ Supplier ESG has been mismanaged, resulting in environmental pollution and labor/human rights abuses by suppliers.</p> <p>Environment ▶ Environmental and air pollution problems caused by waste generated and disposed of by operations and improper disposal (e.g., improper burial) by suppliers.</p>
Local economic development and human concern	Local economic development and human concern	Positive	People / Economy ▶ Helping the economically disadvantaged or other special groups increase employment opportunities or generate income through activities (public welfare/charity/local creation) or cooperation with various public welfare groups.
Talent Recruitment and development	Talent Development and Nurturing	Positive	People ▶ Provide employees with good work and development opportunities through comprehensive talent development and training planning.
Ecological and Community Impact Management	Biological Conservation and Diversity	Positive	<p>People ▶ Regular monitoring of the station's air quality, ecological status, prevention of pollutant release/slide, etc., to protect the health of the surrounding community.</p> <p>Environment ▶ Cooperating with local community members and non-profit organizations to promote various environmental protection projects and help restore/preserve biodiversity to create a more balanced and healthy environment.</p>
	Ecological and Community Impact	Negative	<p>People ▶ The health of local residents has been affected and the quality of the home environment has been degraded due to environmental noise along the route or other environmental impacts.</p> <p>Environment ▶ There is no clear formulation of air quality monitoring and management systems and plans or other local environmental impact plans along the route, which has an impact on the local ecosystem and may make it difficult to maintain habitats, biological aggregate levels and endemic species that provide habitat importance.</p>
Resource use and Management	Resource use and management	Positive	<p>Economy ▶ Promoting the economic development of the renewable energy market by using renewable energy to meet the government's Renewable Energy Development regulations to reduce or eliminate the need for spending fees.</p> <p>Environment ▶ Import energy resource management system, or use renewable energy, increase its use ratio (such as: renewable energy investment, internal power generation, energy self-sufficiency and enterprise power purchase agreement, etc.), or improve energy use efficiency (such as: utilization storage battery, new vehicle type introduction and station equipment update), reduce enterprise carbon emissions to reduce the environmental impact.</p>
	Energy Consumption	Negative	Environment ▶ Increased energy demand due to energy consumption, and Taiwan's current energy mix includes coal-fired and thermal power generation source, it causes greenhouse gas emissions and air pollution problems.

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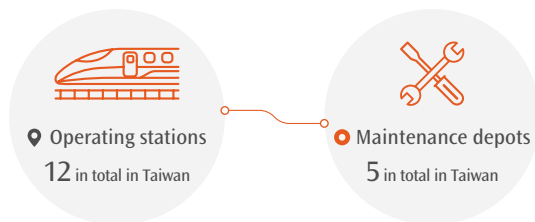
About THSRC

Subchapter Title	Material Topics	Strategies	2023 Goals and Results	Targets (next three years)
 Sustainable governance	Corporate Governance and Operational Performance	<ul style="list-style-type: none"> Actively cooperate with the government's regulation related with corporate governance policies, continue to strengthen the functions and diversity of the board of directors, and deepen the sustainable governance culture of THSRC. Establish a sustainable governance-related promotion organization, such as the Corporate Governance and Nomination Committee, to strengthen the management and supervision mechanism and effectively implement measures. Strengthen corporate governance-related measures and compliance with relevant laws and regulations. Formulate six major sustainable strategies, formulate corresponding short-, medium- and long-term goals and action plans under them, and regularly track the development of issues and program performance through relevant evaluation mechanisms. 	<ul style="list-style-type: none"> THSRC continues to pay attention to corporate governance-related policies, and at the same time adjusts internal governance strategies according to relevant policies. Conduct annual internal and tri-annual external performance evaluations of the Board of Directors; Participated in the governance evaluation of Taiwan Stock Exchange Co., Ltd., and won the top 5% of listed companies in the "Corporate Governance Evaluation" for six consecutive years. Regularly compile and control the sanctioned cases, and continue to track the handling situation and improvement measures. 2023 Legal Compliance Policies Achievement (refer details below). 	<ul style="list-style-type: none"> Continue to cooperate with government policies and strengthen the culture of sustainable governance of THSRC. Continuously implement the management and monitoring mechanism, and track the effectiveness and development of the actions of relevant strategies.
	Corporate Governance and Operational Performance	<ul style="list-style-type: none"> Manage and optimize the company's financial structure to lay the foundation for the company's sustainable operation and seek the maximum interests of employees, shareholders and creditors. According to consumer feedback and revenue targets, develop product and marketing strategies, plan expansion plans, and review them regularly Through the analysis of THSRC's source of railway revenue based on market demand and ridership, the overall target of annual passengers is set, and the annual strategy and promotional plans are set out. Non-railway revenue comes from diverse business models, including leasing of property to stores at stations, parking space services, sales of THSRC media products, as well as sales and promotion of souvenirs. 	<ul style="list-style-type: none"> The quarterly financial report of THSRC is reviewed by accountants, and the annual financial report is audited and attested by accountants, and is used as the basis for asset and liability management, and at the same time, according to the company's operating needs and capital planning, the debt ratio is continuously reduced, so as to achieve sustainable operation. Confirm the performance of each project through various project strategy discussions, closure reports, and departmental meetings. The Company's debt ratio (liabilities/assets) has dropped from 85.7% at the end of 2017 to 82.29% at the end of 2023. On March 13, 2024, the Board of Directors proposed to distribute cash dividends of around NT\$5.74 billion to shareholders for 2023 to seek the best interests of employees, shareholders, and creditors. In 2023, railway revenue exceeded NT\$48.1 billion, and non-railway revenue was around NT\$1.7 billion. 	<ul style="list-style-type: none"> Reduction of debt position and debt ratio. Maintain sufficient cash levels to meet the company's necessary expenditures. Seek long-term and stable sources of financing.
Operational performance	Corporate Governance and Operational Performance			

Operating Bases and Services

The THSRC began its operation in 2007, with Taiwan as an important operating base, and is headquartered in Nangang District, Taipei City.

The total length of the THSR operating route is 350 kilometers, passing through 11 counties and cities in the west and 76 townships.



Note: The function of depots is different from that of stations, and it includes main workshop, marshalling yard, civil engineering base and electrical engineering base, and maintenance base. At present, the maintenance depots in service include Liujia/Hsinchu, Wuri/Taichung, Taibao/Chiayi, Zuoying/Kaohsiung, and Yanchao Main Workshop/Kaohsiung; while Xizhi Depot is currently being planned.



Business Scope of THSRC

- ◆ High Speed Rail Passenger Services
Fast, convenient and comfortable rail transport services, while offering different types of train services, including direct train, semi-direct train, and stopping train to meet passengers' needs.
- ◆ Operation of Relevant Affiliated Services
Retail spaces leasing (e.g., convenience stores, food and beverage, and service counters), parking lots at stations, advertising sales (e.g., lightboxes, column spaces, wall spaces, product displays, and train decorations), retail, trolley sales, and others.

Note: For details regarding rail transport services, please refer to the subchapter titled "[Sincere Services and Intelligent Transportation](#)".

THSRC's upstream industries mainly provide train carriages, construction services, and manufacturers and maintenance industries for track-related service facilities and equipment. Midstream industries include the power supply industry, transport support related to train preparation, and operators related to the provision of transfer services, including the parking lot management industry, the freeway bus industry, the car rental industry, and the taxi industry. Downstream are passengers taking the THSR, or travel agencies that cooperate with the THSRC.

Sustainability Strategies and Goals

THSRC Spirit and Sustainability Mission

THSRC promises to take the five core values of "Discipline, Integrity, Efficiency, Innovation and Sensibility" as the motto of enterprise operations, adhering to the belief of "Go Extra Mile" (with the intention of doing things better), continuously improving transportation safety and service quality, giving passengers a better service experience, and promising the vision and mission of sustainable operation, and looking forward to a faster and better future with the public.



In response to the concerns of different stakeholders on sustainability issues and adapting to the development trend of international sustainability issues, the sustainability issues of THSRC can be divided into three major aspects of environment, society and governance: In the environmental aspect, high-speed rail trains have low carbon, low air pollution, high energy efficiency features, and also strengthen the environmental management around the operation route and add renewable energy devices at maintenance depots and major stations to mitigate the environmental impact during the operation process. In the social aspect, we attach importance to the safety and health of employees' working environment and career development, and not only cooperate with the local industry to help the development of the domestic rail transportation industry, but also combine the core industry to invest in caring actions to promote social integration. In the governance aspect, we abide by laws and regulations and create maximum value for stakeholders. Under the principle of safety first, we continue to use innovative technology to provide fast and convenient transportation services, and continuously improve travel quality and customer satisfaction.

As Taiwan's first listed company in the railway transportation industry, the THSRC was favored by the FTSE Social Responsibility Emerging Market Index in 2018 and was continuously selected a constituent stock of the "FTSE4Good TIP Taiwan ESG Index" from 2018 to 2023. Moreover, it has been ranked in the top 5% of listed companies in the "Corporate Governance Assessment" for six consecutive years. It can be seen that THSRC has implemented E (environment), S (society) and G (corporate governance) and has been affirmed by all walks of life. In addition, THSRC has become one of the world's leading sustainable companies, and was as one of the "Global 100 ranking of the world's most sustainable companies" for two consecutive years by Corporate Knights, a Canadian sustainability assessment agency, and was selected in 2024 as the fourth sustainable company in the world, a significant jump from last year's ninth ranking, and the best performing Asian company in this list. We also continued to participate in the 2023 16th Taiwan Corporate Sustainability Award (TCSA), hosted by the Taiwan Sustainable Energy Research Foundation, and won the Golden Award of the Corporate Sustainability Reporting Award in 2023. In the same year, we also won a total of four awards in the "Outstanding Corporate Category - First Prize" of the 20th National Brand Yushan Award, "Outstanding Corporate Category", "Best Product Category" and "Best Popular Brand Category". The fruitful sustainability awards show the results of THSRC in terms of operational performance, corporate governance, environment and social care have been recognized by domestic and foreign investors and rating agencies.











THSRC Sustainability Strategy Blueprint

THSRC drew up the "4T" sustainability strategy blueprint in 2017, with Transportation, Technology, Taiwan, and Touch as the four major sustainability topics. Starting from 2023, six major strategies will be adopted: "Reducing Disaster Risk in Response to Climate Change", "Accelerating Digital Optimization to Digital Transformation", "Improving Service and Operation Management in Response to Changes in Population and Technology", "Creating Demand and Enhancing Revenue after the End of the Pandemic", "Strengthening Supplier Management and Reinforce partnerships", "Implementing Energy Conservation, Carbon Reduction, and Social Responsibilities" to respond to the United Nations Sustainable Development Goals (SDGs). Meanwhile, we will take into account all policies and actions of Taiwan's sustainable development goals to contribute to Taiwan's sustainable development process.

Looking forward to the future, THSRC will continue to pursue "To be the platform for Advancement and Enjoyment" as the vision for sustainable development, "Implement ESG and Strengthen Corporate Governance to Provide Safe, High Quality, and Innovative Service Toward a Better Life for Taiwan" as the action guide for to achieve the THSRC's sustainable vision. The objectives of each sustainability strategies and the implementation measures in 2023 are shown in the table below, and the details will be explained in the relevant sections.



THSRC Sustainability Strategies, Goals, Implementation Measures in 2023 and Corresponding SDGs

4T Component	Target	Implementation Measures in 2023	Corresponding to the SDGs	
			17 Goals	169 Detailed goals
 <p>Transportation Professional Transportation</p>	<p>Continue to improve operational safety, actively face the impact of climate change on transportation, establish relevant early warning mechanisms, and develop relevant response measures in collaboration with the government, while actively interacting with residents along the HSR railway to create positive value.</p>	<ul style="list-style-type: none"> Continued to inspect the weather resistance of the stations, equipment, and routes to ensure that the train depot meets the high flood prevention and safety standards. 		9.1
		<ul style="list-style-type: none"> Continuously improving services, hardware and software equipment, and supporting measures that enhance the convenience for specific groups, such as the installation of handrails in squat toilets at stations, the improvement of barrier-free urinal partitions and the adjustment of the location of barrier-free toilet facilities, the addition of mobile barrier-free ramp slabs in taxi passenger areas, and the improvement of barrier-free platforms at Tainan Station Bus Transfer Station. 		11.2
		<ul style="list-style-type: none"> Continued to operate the disaster warning system and strengthen preventive measures for earthquakes, typhoons, heavy rain, landslide, and rock fall. 		13.1
		<ul style="list-style-type: none"> Sales executives at each station participated in activities from time to time, and continuously communicated with local opinion leaders and residents along the THSR line. 		17.17
 <p>Technology Innovation and Technology</p>	<p>Actively innovate and enhance technical capabilities, adopt new technologies and promote smart transportation, continue to improve the efficiency and quality of operations, services, safety, and emergency response, as well as adopt big data and digitalization to optimize customer experience and create a more convenient life.</p>	<ul style="list-style-type: none"> Monitored train running status in real time via IoT facilities. Developed an "Application of intelligent drone for HSR bridge inspection maintenance system" to assist in completing inspections in more difficult areas and improve safety and efficiency. 		9.1
		<ul style="list-style-type: none"> Continuing to promote employee proposals to improve the system and quality control circle activities, from 2018 to 2020, it was awarded the Golden Tower Award of the Solidarity Group for three consecutive years, and in 2021, it was awarded the Double Material Silver Tower Award of the Solidarity Group. In the 2023 "Taiwan Continuous Improvement Award" , it won the Silver Tower Award. 		8.3
		<ul style="list-style-type: none"> Continuously provided ticket purchase services for senior and disabled concession tickets via each ticket sales channel to provide passengers with a diverse range of ticket purchase and pick-up channels. Passengers can purchase non-reserved seat tickets through the T Express App at the station, providing passengers with more diversified and friendly ticketing services while reducing the use of ticket paper. The carbon emission information of the ticket itinerary on the T Express App is added to the ticket information, showing the carbon footprint of each passenger taking the transportation between the routes, highlighting the "green consumption" awareness of sustainable environmental protection of passengers taking high-speed rail. 		11.2
		<ul style="list-style-type: none"> Continue to strengthen the use of e-wallet mobile payment ticket purchase. In 2023, the number of tickets paid through T Express App reach 26.42 million. In 2023, the percentage of using paperless tickets (including T-EX mobile ticketing app, periodic / multi-ride tickets, and co-branded cards with electronic ticketing function) was 38.5%, an increase of 6.49 million from 2022. 		12.2 12.5

4T Component	Target	Implementation Measures in 2023	Corresponding to the SDGs	
			17 Goals	169 Detailed goals
 <p>Taiwan Enhancing Local Connection</p>	<p>Actively nurture local talents and establish industry-academia collaboration, strive to create opportunities for diverse products and different industries through our business model, become the platform for advancement and enjoyment locally. And promote the prosperity and development of local industries by fostering the development capabilities of the local railway industry. At the same time, establish a sustainable supply chain management mechanism, and become the leader which guides the railway industry to sustainability.</p>	<ul style="list-style-type: none"> Established collaboration with colleges and universities, and promoted talent cultivation in Taiwan's railway industry through industry-academia collaboration and internship programs, where a total of 114 students were accepted into our internship program for the academic year of 2023, providing a one-year station work internship opportunity. 		4.4
		<ul style="list-style-type: none"> Actively promoted local supply and enhanced the capabilities of local vendors. Provided equal employment opportunities through talent recruitment and cultivation. Enhanced the professional competencies of personnel based on assessment and training. Launched the "Journey with THSR, Discover Taiwan" series of products, and held the " THSR Spring Travel Promotion 2023" and " Be There, NOW", " THSR Online Travel Fair 2023" and other promotional activities, providing integrating all-in-one travel experiences and variety of preferential products. Committed to creating local employment opportunities, and supporting local businesses with lower rents to set up THSRC markets or product museums and generate local revenue. so as to promote local produced products. <ol style="list-style-type: none"> Taiwan Hakka Creative Souvenir, and Guaranteed Liability Yun-Lin County Qiong Pu Cooperative Farm were commissioned to operate the product hall at a lower rent in Miaoli and Yunlin stations, and the goods in the pavilion and market are all produced by local small farmers or merchants, which can reduce the relevant management and marketing costs, and sell directly to passengers at an appropriate price. There are HSR market counters at all stations of the line, and local merchants are the main targets for stationing (attracting investment), such as Taoyuan (Ah Ren nougat) and Hsinchu (spring pudding cake) and continue to assist local manufacturers in creating employment opportunities. 		8.3 8.5 8.9
		<ul style="list-style-type: none"> In tandem with tourism components such as local industries, cultural experiences, and transportation connections, and in response to the tourism needs of different people, themed tourism projects such as senior citizens, parent-child, and in-depth tours have been launched to promote tourism benefits and the development of the local tourism industry, with 4.025 million tourists in 2023. 		12.b
 <p>Touch Sustainable Care</p>	<p>Comprehensively improve the corporate social responsibility governance mechanism, and strengthen the integration of governance and sustainable development by incorporating the corporate social responsibility vision into the corporate culture. In addition, promote employee development, implement energy conservation and carbon reduction to create positive environmental benefits, and at the same time actively support charity events, arts, and ecological development as an important platform for strengthening the cohesion of Taiwan's society.</p>	<ul style="list-style-type: none"> In cooperation with the "After School Association of Taiwan" to implement the "The High-Speed Educational Endowment Program", inviting THSRC passengers and the public to help children from disadvantaged families move towards self-reliance and a better future through learning programs. Organized "HSR Camps" to enhance the knowledge about railway of participants at all school ages so as to train potential excellent railway talents. 		4.5
		<ul style="list-style-type: none"> Leased out the rooftop of the maintenance depots, the detention basins, and the outdoor car parking spaces and their rooftop outside each station to energy suppliers for the installation of solar power equipment in line with the government's effort to promote renewable energy. The annual power generated reached 9,673.471 MWh in 2023. 		7.2 7.b
		<ul style="list-style-type: none"> Continued to promote the operation of the Corporate Governance Promotion Committee to develop strategies for optimizing corporate governance systems and functions, and review the corporate social responsibility policies. 		8.9
		<ul style="list-style-type: none"> Working with educational and charitable institutions to help disadvantaged people take free high-speed train rides, THSRC Smiling Train Charity Program has helped 863 disadvantaged groups with a total of 148,504 rides by 2023. 		11.2
		<ul style="list-style-type: none"> Implemented relevant energy conservation programs and measures, and continued to optimize equipment to improve the effectiveness of energy management. 		9.1 9.4
		<ul style="list-style-type: none"> Monitored weather information in collaboration with government and professional organizations. 		13.2
		<ul style="list-style-type: none"> Reduced the impact of public transportation on the environment through energy resource management and waste recycling mechanisms. Increased the procurement of eco-friendly products to reduce the impact of supply chain on the environment. 		12.5 12.7

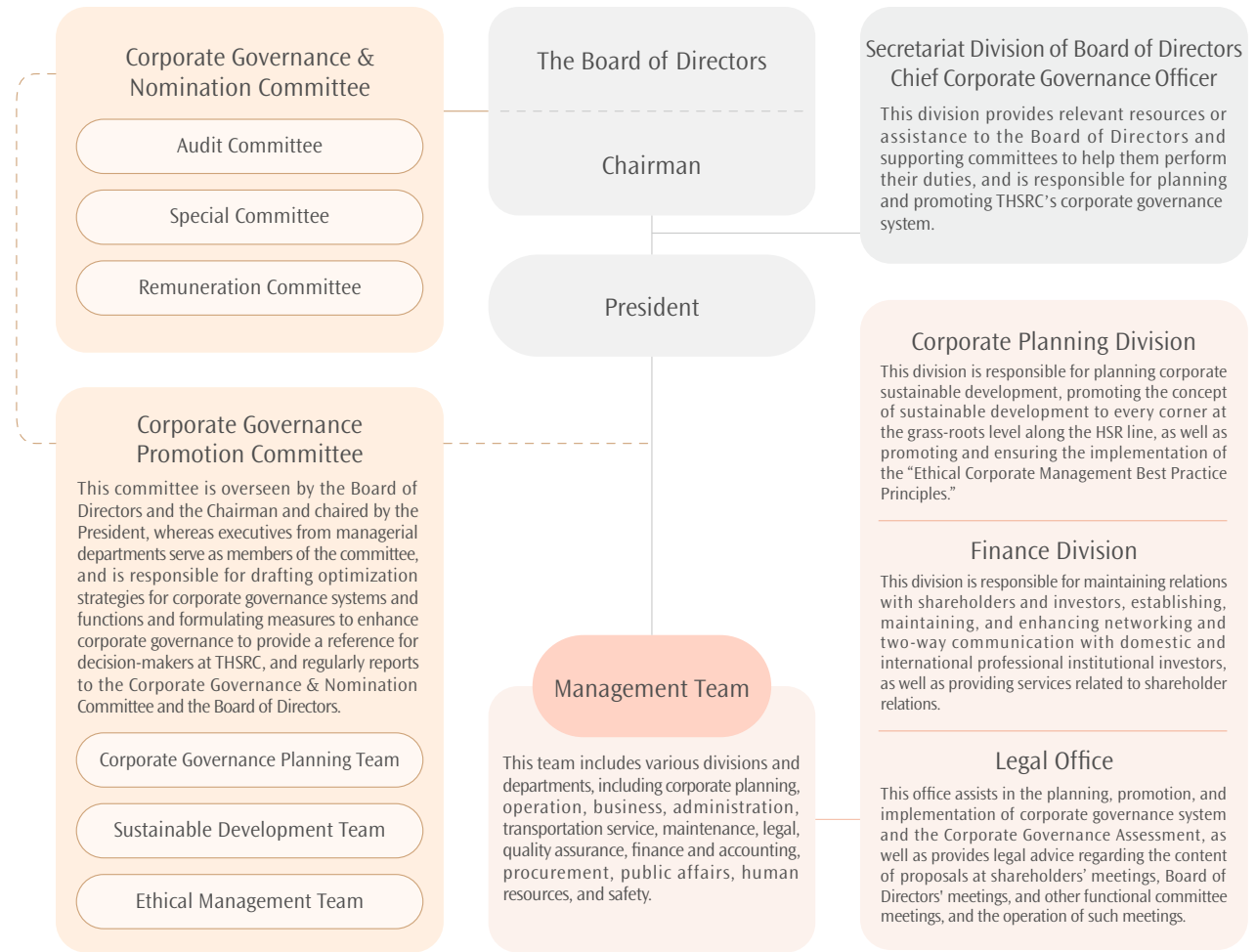
Sustainable Governance

Corporate Governance Framework and Committee

THSRC firmly believes that thought-out, transparent, and efficient corporate governance is the foundation for pursuing steady development, continuously improving operational safety and sustainable performance, and further creating sustainable value. The Company complies with domestic laws and regulations to establish the "Corporate Governance Guidelines", and has established the Board of Directors and various functional committees under it to optimize the overall governance effectiveness of the Company through various management mechanisms.

The "Corporate Governance and Nomination Committee" established by THSRC, with the chairman as the convener, is responsible unit for reviewing the planning and effectiveness of the "Corporate Governance Promotion Committee." The Corporate Governance Promotion Committee, led by the General Manager, promotes relevant issues through its Corporate Governance Planning Group, Sustainability Development Team and Ethical Management Team, and regularly submits implementation performance reports to the Corporate Governance and Nomination Committee and the Board of Directors. In 2024, THSRC will restructure the function and title of the "Corporate Governance and Nomination Committee", and this report disclose the governance structure in 2023. The main issues discussed in 2023 covered the implementation status of human rights management, corporate governance, sustainable development, ethical management, information security management and system, legal compliance, and risk management. Additionally, the committee presented reports on investor relations enhancement plans and strategic planning for material corporate governance matters. For more information on the responsibilities of the "Corporate Governance Promotion Committee" and its operations in 2023, please refer to "[Corporate Governance Framework](#)," THSRC makes efforts to promoting corporate governance systems and measures, and has been ranked among the top 5% of listed companies in the "[Corporate Governance Evaluation](#)", [THSRC's annual report](#), [corporate website](#), and the [Market Observation Post System \(MOPS\)](#).

Corporate Governance Framework Chart











Note: In 2024, THSRC will restructure the titles and the scope of the "Corporate Governance and Nomination Committee". The governance structure of this report is mainly based on the 2023 structure.

Selection of Directors

THSRC has a complete nomination and selection system, handling the nomination of directors in accordance with the "[Regulations for the Election of Directors](#)" and the "Regulations for the Nomination of Director Candidates", and evaluates the overall competence of the Board of Directors in accordance with the "[Regulations for the Organization of the Corporate Governance and Nomination Committee](#)." All directors of THSRC adopt a candidate nomination system, and the "Corporate Governance and Nomination Committee" conducts a qualification evaluation to carefully review the professional knowledge, skills and experience of the Board of Directors, as well as gender and independence, and clearly stipulates that the composition of the Board of Directors should consider diversity. In addition to formulating a diversity policy basic on conditions and values (including but not limited to gender, age, nationality and culture, etc.), the company also implements gender equality in the composition of the Board of Directors. During the selection process, the company's own operations, operating model and development needs are also taken into consideration, as well as the professional knowledge, technology, experience, gender and other diverse backgrounds required by the Board of Directors and the independence standards that independent directors should have, so as to enhance the effectiveness of the company's board of directors.

Responsibilities of the Board of Directors and Information on Board Members


The Board of Directors serves as THSRC's highest governing body. Its main power and responsibilities include the power conferred by relevant laws and regulations, and the shareholders' meeting, reviewing significant regulations, business plans, budgets, financial statements, and important business, as well as supervising management execution results and guiding the management team. Currently, the Board of Directors has 15 directors (including 5 independent directors), with 80% (12) men and 20% (3) women, and we will strive to increase the proportion of female directors in the future to meet the norms of diversity in governance organizations. At present, the average age of the Board of Directors is 63.8 years old, including 5 doctors and 7 masters, all of whom have relevant professional backgrounds and relevant ESG experience required by the transportation industry. In terms of professional ability, the Board of Directors as a whole has the ability of marketing technology, business management, law, financial accounting, leadership decision-making, industrial knowledge, crisis management and international market view. Please refer to Appendix Table 2 for composition background on the members of the Board. The age distribution of the Board is as follows:

Age	Proportion	Number
 30-50 years old (inclusive)	 7%	1
 50-60 years old (inclusive)	 27%	4
 60-65 years old	 13%	2
 65 years of age or older	 53%	8
total	100%	15

Board Operations and Performance Evaluation

The term of office of the directors is 3 years (this term is effective from the election of the regular general meeting of shareholders on May 25, 2023), and in accordance with the provisions of the THSRC's Governance Code, the Board of Directors will meet at least once every 2 months, and a total of 13 meetings in 2023, and the attendance of resolutions on economic, environmental, and social issues discussed by each functional committee can be found on [page 66 of the annual report](#).

In 2021, the THSRC established the "Regulation of Self-Evaluation of the Board of Directors", under which the Board of Directors and functional committees (including the Corporate Governance and Nomination Committee, the Audit Committee, the Remuneration Committee and the Program Committee) shall conduct internal performance evaluations annually in accordance with the evaluation procedures and evaluation indicators set forth in the Regulations, and shall appoint them at least every three years. The evaluation will be conducted once by an external professional independent institution or a team of external experts and scholars, and will be completed before the end of the first quarter of the following year. In 2023, the Board of Directors has completed the internal self-assessment, and will continue to refine the management method in the future, and include ESG performance as one of the self-assessment indicators and the consideration of directors' remuneration.






Internal self-assessment or external assessment

<p>Evaluation Period From January 1, 2023 to December 31, 2023</p> <p>Content of evaluation (1) Mastery of the company's goals and tasks (2) Awareness of directors' responsibilities (3) The degree of involvement in the company's operations</p> <p>Evaluation Result The average total score is 90 points or above, which significantly exceeds the standard.</p>	<p>Scope of assessment Performance evaluation of directors</p> <p>(4) Internal relationship management and communication (5) Professional and continuing education of Directors (6) Internal Controls</p>
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Functional Committees

In order to effectively perform the competencies of the Board of Directors and elevate the caliber of its decisions, functional committees have been set up under THSRC's Board of Directors, including the "Corporate Governance & Nomination Committee", "Audit Committee", "Remuneration Committee", and "Special Committee." These committees aid the Board of Directors in fulfilling its supervisory and advisory duties by organizing meetings to execute the responsibilities mandated by regulations, deliberating pertinent matters, and presenting conclusions and recommendations to the Board of Directors for resolution. Please refer to the table below for the description of each functional committee's responsibilities and the issues discussed in 2022. For further information on operations, please refer to "[Operations of Functional Committees](#)".

-  ♦ Economy
E.g., finances, integrity, anti-corruption, corporate governance, management, etc.
-  ♦ Environment
E.g., energy conservation and carbon reduction, renewable energy generation devices, waste disposal, ecological conservation, etc.
-  ♦ Society
E.g., donations, public welfare activities, community communication, labor rights issues, employee education and benefits, customer safety and health, etc.

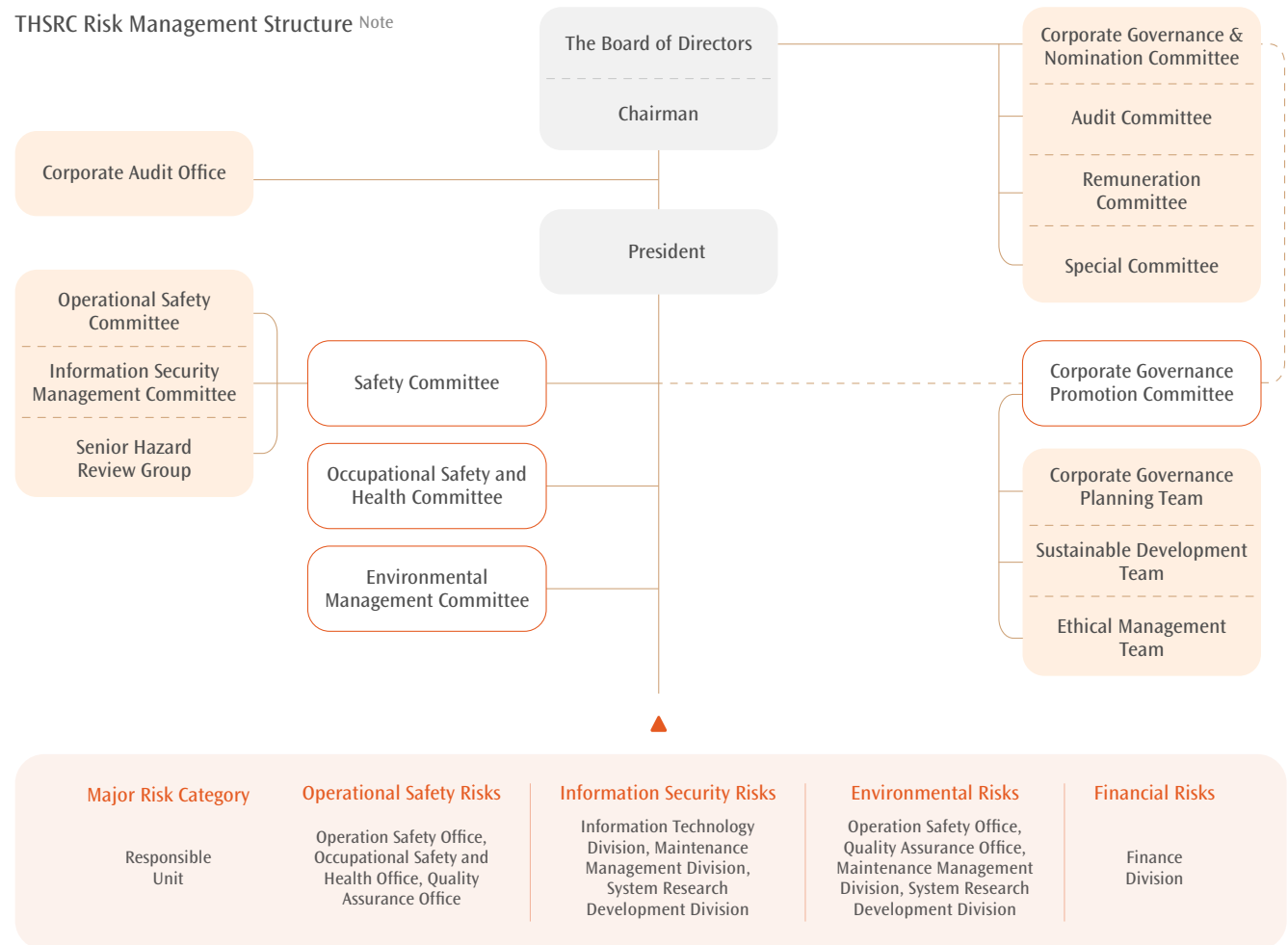
	Performance of functions	Some issues discussed in 2023	Economic	Environmental	Social
 <p>Corporate Governance & Nomination Committee</p>	<ul style="list-style-type: none"> Review the professional knowledge, techniques, and experience required by independent directors, non-independent directors, and managers, and their diverse backgrounds such as gender and independent criteria Responsible for the nomination of directors, as well as the planning and assessment of potential director candidates Plan and review the performance of duties by all directors Responsible for planning suggestions and effectiveness reviews of corporate governance systems Responsible for reviewing the report on the planning and implementation of the Corporate Governance Promotion Committee, which has a Corporate Governance Planning Team, a Sustainability Development Team and an Ethical Management Team to promote related issues. In 2023, the main topics of discussion will be covered: human rights management, corporate governance, corporate social responsibility, ethical management, information security management and systems, legal compliance and risk management 	2023 corporate governance system, sustainable development (including environmental and social aspects), and report on the operation of ethical management and implementation status, and report on corporate governance status	V	V	V
		Report on the results of self-evaluation of the Board of Directors' performance	V		
		Report on the self-assessment of the Corporate Governance Evaluation	V		
		Performance goal setting and evaluation result reporting for managers	V		
		Succession mechanism for important levels of management	V		
		Report on the results of self-evaluation of the Board of Directors' performance	V		
		Amendments to the Company's Sustainable Development Best Practice Principles	V	V	V
		Amendments to the Company's "Articles of Incorporation"	V		
		Revision of the Company's "Guidelines for Corporate Governance"	V		
		Revision of the Company's "Regulation of Related Party Transaction "	V		
		Revision of the Company's "Information Disclosure Management Regulations"	V		
Report on the implementation of corporate governance	V		V		
 <p>Audit Committee</p>	<ul style="list-style-type: none"> Formulate or amend the internal control system in accordance with the Securities and Exchange Act Review major asset and derivative trading, loaning of funds, and provision of endorsements or guarantees Review annual financial statement and assess company risk management policies, metrics, and compliance 	Report on the implementation of corporate governance	V		V
		Performance goal setting and evaluation result reporting for managers	V		V
		Report on the legal compliance system and its implementation	V		
		Amendment to the "Internal Control System" and the "General-Rules of Internal Control Self-assessments"	V		
		Perform self-assessment of internal control system results	V		
		Report on the implementation progress related to risk management, including environmental risk control	V	V	V
		Report on the implementation of information security governance and management	V		
		Annual donation and sponsorship programs			V
 <p>Remuneration Committee</p>	<ul style="list-style-type: none"> Regularly review the policies, systems, standards, and structures of performance evaluation, and salary and remuneration for directors and managers Regularly assess and formulate the salary and remuneration for directors and managers 	Proposal for salary adjustment	V		
		Report on the results of self-evaluation of the Board of Directors' performance	V		
		Suggestions on the distribution of employee and director compensation	V		
		Performance goal setting and evaluation result reporting for managers	V		
		Suggestions on subsidies and bonuses related to employee benefits			V
 <p>Special Committee</p>	<ul style="list-style-type: none"> Provide counsel and suggestions on major legal or contractual disputes and important institutional changes in the Company 	Report on the Localization and Development of Original Equipment Manufacturer (OEM) Sources	V		V
		Procurement of equipment and materials from local suppliers for domestic development and support	V		V
		Optimization and improvement of software and hardware facilities to maintain customer safety	V		V

Sustainable Risk Management




Risk management is a crucial element in the pursuit of sustainable operations for enterprises. In light of the increasing diversity of emerging risks, as well as environmental, social, and corporate governance concerns, THSRC has established a risk management operation mechanism. This mechanism integrates recommendations from various committees at different levels and formulates THSRC's "risk management policy", and the management team is responsible for monitoring related risks and reporting the operation status to the Board of Directors once a year. In 2023, the Audit Committee and the Board of Directors reported the implementation status and progress of annual risk management, and the responsible management team has taken appropriate response measures for relevant risks and made records accordingly. The risk management team will continue to review and revise new risk management policies in response to changes in internal and external environmental conditions, with the aim of strengthening the risk awareness of THSRC through the implementation of medium- and long-term risk strategic plans and goals, moving towards the vision of sustainable operation.

Considering various aspects related to company operations, such as business environment, operation, finance, and hazardous events, THSRC has identified four risk categories including "environmental", "operational safety", "information security" and "financial" according to the principle of materiality. Meanwhile, we review the completeness of internal risk management and the effectiveness of risk control, check and identify risks that may affect operations and profitability, and enhance response measures for related risks. The identification results, relevant response measures and actions, key performance indicators, and actual results of major risk categories of THSRC in 2023 are listed as follows. In order to mitigate the potential financial impacts of declined revenue and increased work costs caused by various risk factors, THSRC has comprehensively planned for the operating asset insurance and business interruption insurance to cover various risk factors, such as natural disasters, human errors and equipment abnormalities to properly respond to risks.


THSRC Risk Management Structure ^{Note}



Note: In 2024, THSRC will restructure the title and the scope of the "Corporate Governance and Nomination Committee", and the governance structure of this report is based on the 2023 structure.

Topic	Major Risk Category	Risk Implications	Relevant Response Measures and Actions	Key Performance Indicators	2023 Performance
 Environment	Environmental Risks	Assess various environmental risk patterns that may cause regulatory amendments, system damage, regional power outages, water shortage, etc., which will affect service quality and increase maintenance costs, such as the greenhouse effect, extreme climate events, earthquakes, land subsidence, newly formed faults and etc.	<ol style="list-style-type: none"> 1. Formulate environmental policies and conduct management in accordance with the environmental management manual; it has passed the certification of the environmental management system ISO 14001 2. Identify climate change risks, forecast future medium- and long-term climate change risks, formulate energy conservation plan and measures, and work with professional institutions to analyze and formulate adaptation strategies in response to climate change, in order to effectively reduce the possible operational impact of climate change on THSRC. For details, please refer to the section entitled "Climate Change Mitigation and Adaptation" 3. Collaborate with professional institutions to establish an earthquake early warning system 4. Conduct assessment of land subsidence, new faults, flood control, and earthquake resistance capability, as well as study and plan for improvement needs 5. Adopt Disaster Warning System (DWS) to keep abreast of environmental disaster status, performed annual disaster prevention audits, and organize regular and random large drills 	Formulate indicators and goals related to environmental management, ecological conservation, waste management, energy management, water resource management, and greenhouse gas management (please refer to the table titled " Short-, Medium-, and Long-term Environmental Management Goals and Strategies " in the subchapter entitled " Environmental Sustainability Strategies ")	<ul style="list-style-type: none"> • Assessed and structurally reinforced activity faults along THSR routes • Strengthened slope monitoring and protection mechanism • Increased the frequency of slope inspections • Replaced disaster warning system server • Acts of third party construction within and outside the restricted area
 Society	Operational Safety Risks	In the THSR system, facility and equipment failure, human negligence, sabotage or other external factors may affect train safety, which in return harm employees, passengers, contractors, and the public or result in delay or interruptions in railway operations	<ol style="list-style-type: none"> 1. Formulate safety and health policy, corporate quality policy, and configuration management policy, as well as managed these policies in accordance with the Operation Safety Plan, the Occupational Safety and Health Management Manual, the Corporate Quality Manual, the High Speed Rail System Configuration Management Manual, the Corporate RAMS (Reliability, Availability, Maintainability and Safety) Manual, the Railway Operation Security Management Plan, and the Corporate Safety Assurance Plan 2. Establish Operational Safety Committee and Occupational Safety and Health Committee which meet regularly every quarter 3. Perform internal audit and safety inspections of railway operation safety, occupational safety and health, quality management, configuration management, and system assurance, etc. 4. Conduct railway safety training, occupational safety and health training, hazard management training, and disaster prevention and rescue drills and training 	<ol style="list-style-type: none"> 1. Percentage of configuration monitored items (please refer to the subchapter entitled "Quality Management Systems (QMS)") 2. Four major quality performance indicators (please refer to the subchapter entitled "Quality Management Review") 3. Inspection cycle and number of trainsets maintained (please refer to the subchapter entitled "Station and Route Safety and Risk Management") 	<ul style="list-style-type: none"> • Evaluated the relevant operational risks and contingency strategies in the event of a Taipower power failure • Reported to the Board of Directors on operational safety performance
 Corporate Governance	Information Security Risks	THSR is Taiwan's key information infrastructure provider and is listed as an agency of cyber security responsibility Level A in Taiwan. Therefore, the confidentiality, integrity, availability, and legal compliance of the THSR information system are key risk considerations for our information security	<ol style="list-style-type: none"> 1. Formulate information security policy and computer software intellectual property protection policy, which are managed in accordance with the Information Security Management Manual 2. Establish the Information Security Management Committee, which convenes review meetings regularly every six months 3. Establish a management operation system in accordance with the ISO 27001 Information Security Management Standards 4. Implement internal audit, drill assessment, information security diagnosis, penetration test, defense in depth, education and training regarding information security in accordance with the requirements for agencies of cyber security responsibility Level A in Taiwan 	<ol style="list-style-type: none"> 1. Personal information inventory count 2. Number of related awareness programs, and education and training sessions held and training completion rate 3. Review through regular meetings 	<ul style="list-style-type: none"> • Report to the Board of Directors on the implementation of information security governance and management • Continued to integrate IT and OT information security management and implement information security detection and monitoring based on the three major strategies of OT protection (maintaining OT segment independence, strengthening OT boundary maintenance, and defending against the OT segment) • Vigilance raised against offshore cyber attacks • In October 2023, THSRC passed the renewal verification of the British Standards Institution BSI, and maintain the ISO27001 information security management system certification. The certificate is valid from December 28, 2023 to October 31, 2025.
	Financial Risks	Changes in the economic and financial situation at home and abroad will affect THSRC's revenue, maintenance and operation costs, interest rates, and exchange rates, thereby affecting THSRC's profit or loss and cash flow	<ol style="list-style-type: none"> 1. Comply with the relevant provisions of the "International Financial Reporting Standards (IFRS)", the "International Accounting Standards (IAS)", and government regulations 2. The competent authority conducts a regular annual financial review 3. Managerial departments review budgets every month and report them to the Board of Directors every six months 4. Regularly produce quarterly and annual financial statements 5. The Board of Directors reviews important financial activities in accordance with relevant laws and regulations and internal control systems 	<ol style="list-style-type: none"> 1. Cumulative Revenue 2. Net Income after Tax 	<ul style="list-style-type: none"> • Submitted financial reports to the Board of Directors every quarter, and budget execution reports submitted to the Board of Directors every six months • Submitted the THSRC's financial solution implementation effectiveness checklist, budget and financial modules checklist, and THSRC's financial audit report during the planned operation period to the Ministry of Transportation and Communications • Interest rate risk due to the trend of interest rate hikes • Liquidity risk due to the impact of the pandemic on revenue • In December, the Board of Directors approved the sixth amendment to the "Taiwan's North-South High Speed Rail Construction and Operation Project NT\$382 billion Syndicated Loan Agreement", setting a record for the largest joint loan interest rate reduction in Taiwan

In 2023, a total of 6,790 hours of risk-related internal and external courses with 5,086 trainees are as follows:

- 

Risk-related internal and external courses

 - ◆ Risk-based internal audit methods and practices
 - ◆ Enhance the sustainable value of enterprises and improve the risk management system
 - ◆ Smart Safety - Seminar on Improving the Operational Efficiency of Railway Risk Control and Intelligent Rail Equipment
 - ◆ "EN50126 Railway Transport Safety Management Course" and "Operational Safety Risk Assessment Training"
 - ◆ Safety and health education training course (new supervisors at all levels) - hazard risk assessment
 - ◆ Key Duty Functions Development Program Training Course (Problem Analysis and Decision Risk)
 - ◆ General Course on Information and Communication Security-Ransomware Awareness and Risks and Applications of Deepfake in the Epidemic
 - ◆ Occupational safety and health hazard identification, risk assessment and risk control procedures

Legal Compliance

THSRC has established a compliance policy, specific implementation objectives, and a management mechanism in accordance with relevant regulations and guidelines drafted by competent authorities. The implementation results of the legal compliance system have been integrated into its internal control system, which requires employees to self-examine their compliance status and each team to assess the risk of legal compliance. This approach aims to cultivate an awareness and culture of compliance among employees. In 2023, the average risk level evaluated by each team was medium to high, and implementation effectiveness of risk control at each team was highly effective. THSRC attaches high importance to legal compliance. If the company and internal personnel are punished in accordance with the law, and the result of the punishment may have a significant impact on shareholders' rights or securities prices, it will be considered as a major violation. There were no major violations on THSRC in 2023.

THSRC reviews applicable laws and regulations on a quarterly basis, files cases to competent authorities for adjudication, and convenes representative meetings on compliance. These efforts are aimed at continuously improving and tracking compliance in a rolling manner, with the ultimate goal of fostering a culture of law compliance within THSRC. The compliance status of THSRC in 2023 is described as follows:

◆ Implementation of the 2023 Legal Compliance Work Plan :

The Company's legal compliance representative meeting was held for a total of 4 times.

THSRC regularly tracks changes in applicable laws every month, with a total of 33 legal changes. After evaluation, only the amendments to the "Sexual Harassment Prevention Act" and the "Gender Equality in Employment Act" have an impact on the Company's business operations. The Company had completely adjusted internal regulations before the aforementioned two laws are officially implemented on March 8, 2023. Other legal changes will have no impact on the Company's operations.

THSRC conducts monthly tracking and control of the draft amendments to the laws and regulations applicable to the company, with a total of 69 draft amendments to laws and regulation. During the notice period, our company will only respond to four draft laws and regulations including "Article 67-3 of the Railway Act", "Regulation for railway inspect and repair railway locomotives and vehicle", "Subsidy operation directions for the development of railway maintenance spare parts and inspection equipment", and "Act for the Development of Tourism", has proposed amendment comments by THSRC during the preview period, and the remaining draft amendments have no impact to the Company's operations.

◆ Important laws and regulations related to the "High-speed railway construction and operation" : Including the Railway Act and its sub-laws, the Statute for Encouragement of Private Participation in Transportation Infrastructure Projects, the Act for Promotion of Private Participation in Infrastructure Projects, and the Fair Trade Act, etc. In 2023, there had been no violation of the previous important laws and regulations.

◆ Important laws and regulations related to the "Public Listed Companies" : Including the Company Act, the Securities and Exchange Act, the Regulations Governing Procedure for Board of Directors Meetings of Public Companies the Regulations Governing Establishment of Internal Control Systems by Public Companies, and other laws and regulations related to corporate governance, such as ethical management and information disclosure. In 2023, there had been no violation of the previous important laws and regulations.

◆ Laws and regulations related to "economic and social aspects" :

Including Income Tax Act, the Labor Standards Act, the Statute for Industrial Innovation, the Fire Services Act, the Consumer Protection Act, and other laws and regulations. In 2023, there was one violation of the Laws and regulations related to the "environmental aspect" .

THSRC was found to have violated Article 38, Paragraph 2, Article 43 and Article 59, Paragraph 2 of the Labor Act on March 10, 2023 by Taipei City Government, and was fined NT\$20,000 in accordance with the law. This is because after the company determined that the employee's injury was an occupational disaster at the occupational disaster investigation meeting in 2022, it did not immediately grant the employee public sick leave and trace it back to the day of the incident. This prevents the employee from receiving compensation for his original salary due to medical treatment due to occupational disasters during the period. THSRC had optimized the internal public sick leave application system and review process, and had communicated relevant laws and regulations to all colleagues and strengthened education and training to avoid similar situations from happening again.

◆ Laws and regulations related to the "environmental aspect" : Including the Building Act, the Environmental Impact Assessment Act, the Soil and Water Conservation Act, the Water Pollution Control Act, the Air Pollution Control Act, the Noise Control Act, and the Waste Disposal Act. In 2023, there had been no violation of the previous important laws and regulations.

In addition, in 2023, THSRC did not violate regulations related to products and services, marketing and labeling, resulting in fines or other adverse sanctions.

Ethical Management and Anti-Corruption

THSRC firmly believes that thought-out, transparent, and efficient corporate governance is the foundation for pursuing steady development, continuously improving operational safety and sustainable performance, and further creating sustainable value. THSRC complies with domestic laws and regulations to establish the "[Corporate Governance Guidelines](#)", and has established the Board of Directors and various functional committees under it to optimize the overall governance effectiveness of the Company through various management mechanisms. Through the establishment of relevant internal codes of conduct, such as "[Ethical Corporate Management Best Practice Principles](#)", "Code of Ethical Conduct" and "Employee Code of Conduct", as well as solid education and training to enhance the anti-corruption awareness of all employees, and actively prevent dishonest behaviors that do not comply to the code of conducts. Please refer to page 121 of the [Annual Report](#) or more details. The Board of Directors did not conduct anti-corruption education and training in 2023, but written materials will be provided to the Board of Directors if the competent authority releases relevant anti-corruption information or new legal knowledge. The number of participants and hours of education and training related to ethical management and anti-corruption organized for new and existing employees are listed below:



The total number of new employees participated in the anti-corruption policy promotion sessions was **341** , accounting for **7.2%** of all employees.



A total of **4,747** people participated in the digital training courses on ethics, integrity, and insider trading prevention, accounting for **100%** of all employees, with a total of **2373.5** hours. In addition, the Company's directors and senior management have signed the "Ethical Management Policy Statement."

THSRC has set up the "Ethical Corporate Management Grievance Mechanism" and the "[Regulation of Whistle-Blowing System for Unlawful, Unethical Conduct and Dishonesty Behavior](#)," which are handled by the Company's spokesperson and the Internal Audit Office. Through these mechanisms, a comprehensive complaint channel has been established to promote the Company's culture of ethical management. In 2023, there were no material violations of regulations resulting in penalties imposed by competent authorities due to corruption, and no relevant complaints were received. In the future, we will continue to uphold the highest standards of integrity management.

In view of the fact that suppliers are THSRC's important partners, THSRC introduces the "Supply Chain Management Policy", "Principles of Handling Unusual Conduct Among Manufacturers", "Procurement Regulations" and related specifications with reference to international industrial standards to strengthen sustainable supply chain management, and indicates anti-corruption policies and procedures in the tender instructions to achieve bidding behavior complies with the principles of fairness, justice and openness. Suppliers may require to explain if there is any violation case found and particularly serious thereof may be listed as a prohibited Supplier. In 2023, THSRC announced the Supplier Code of Conduct which has incorporated ethics (including business Integrity, fair trade, avoid conflicts of interest and intellectual property, etc.) into the code. There are 1,185 public procurement cases related to anti-corruption policies this year, accounting for 61.91% of total procurement cases, and there are no cases of suppliers' violation of ethical management.

Operational Performance

Financial Performance

Items	Unit	2021	2022	2023
Sales Volume (Rail Transport)	Thousands of passenger-km	7,568,788	9,338,061	12,564,569
Sales Amount				
Railroad Transportation	NT\$ thousands	29,084,574	35,640,556	48,074,881
Goods	NT\$ thousands	72,463	121,227	206,632
Rental & Others	NT\$ thousands	1,070,850	1,371,450	1,530,510
Operating Ratios				
Railroad Transportation	%	96.22	95.98	96.51
Goods	%	0.24	0.33	0.42
Rental & Others	%	3.54	3.69	3.07
EBITDA and EBTDA				
EBITDA	NT\$ thousands	17,576,551	23,555,938	34,203,795
EBTDA	NT\$ thousands	11,914,740	17,529,119	27,808,203
Turnover and Profitability				
Operating Revenue	NT\$ thousands	30,227,887	37,133,233	49,812,023
Gross Profit	NT\$ thousands	4,525,557	11,243,130	22,193,206
Income from Operations	NT\$ thousands	3,317,882	9,920,408	20,532,021
Income Before Income Tax	NT\$ thousands	4,265,625	4,265,625	9,737,821
Net Income	NT\$ thousands	3,610,922	3,769,337	7,824,283
Assets, Liabilities and Equity				
Total Assets	NT\$ thousands	427,907,041	400,540,132	402,704,229
Total Liabilities	NT\$ thousands	360,129,070	333,250,065	331,367,929
Total Equity	NT\$ thousands	67,777,971	67,290,067	71,336,300

Note: 1. EBITDA : Earnings Before Interest, Taxes, Depreciation and Amortization.
2. EBTDA : Earnings Before Taxes, Depreciation and Amortization.

Economic Value Distribution

Unit: New Taiwan Dollar (thousand NTD)

	Items	2021	2022	2023
Operating costs	Cash outlays that occur outside the organization for the purchase of raw materials, product parts, site facilities, and services			
	Operating costs (total)	25,702,330	25,890,103	27,618,817
	Operating expenses (total)	1,207,675	1,322,722	1,661,185
Employee Salaries and Benefits	Including total salary, as well as the amount paid to the government on behalf of employees, periodic contributions, and other employee subsidies	-	5,007,895	5,197,016
Dividend Distribution	Dividends paid to all shareholders ^(Note 1)	-	4,266,246	3,770,956
Interest Payment	Interests paid to lenders	-	5,757,241	6,231,824
Payments to the Government	Taxes ^(Note 2)	1,194,405	1,140,324	1,772,314
	Profit Sharing Payments ^(Note 3)	541,931	8,049,281	426,563
	Rental Expenses ^(Note 3)	827,691	836,847	836,800
	Stabilization Reserve ^(Note 3)	-	885,959	-
Community Investment	Voluntary donations and investments whose target beneficiaries are non-organizational external units	-	15,071	8,141
			6,168	

Note: 1. The distribution of earnings for each year shall be subject to the resolution of the annual shareholders' meeting held in the following year.
2. The payment of government taxes includes business tax, income tax and other taxes.
3. It is the amount paid by THSRC in accordance with the "Taiwan North-South High Speed Rail Construction and Operation Agreement" signed with the Ministry of Transportation and Communications (MOTC).

Government Subsidies

Unit: New Taiwan Dollar (thousand NTD)

Type	Purpose / Description	2021	2022	2023
Tax Deduction and Credit (Tax Amount)	Investment tax credits for construction of operating equipment or technology expenditures in Article 29 of the "Statute for Encouragement of Private Participation in Transportation Infrastructure Projects" ^(Note 1)	-	290,063	-
	Investment tax credits applicable to capital expenditures invested in personnel training specified in Article 29 of the "Statute for Encouragement of Private Participation in Transportation Infrastructure Projects"	2,326	-	-
	Investment tax credits applicable to capital expenditures invested in R&D specified in Article 29 of the "Statute for Encouragement of Private Participation in Transportation Infrastructure Projects"	2,702	-	-
	Five-year tax exemption specified in Article 28 of the "Statute for Encouragement of Private Participation in Transportation Infrastructure Projects" ^(Note 2)	391,045	-	-
	Investment tax credits applicable to investment in smart machinery specified in Article 10-1 of the "Statute for Industrial Innovation" ^(Note 3)	11,588	-	-
	Tax credit applicable to undistributed earnings as in the substantive investment specified in Article 23-3 of the "Statute for Industrial Innovation" ^(Note 3)	17,822	42,593	-
Investment Subsidies, Research and Development Subsidies, and Other Related Subsidies	Subsidy of Department of Economic Development, Taipei City Government for the replacement of energy-saving equipment and the replacement of smart energy-saving systems for the service industry in Taipei City	2,000	-	-
	Subsidy program for residential and commercial electricity saving in Taichung City issued by the Economic Development Bureau, Taichung City Government	508	-	-
	COVID-19 relief of bill payment assistance ^(Note 4)	94,331	4,611	-
	Ministry of Economic Affairs Rail Transportation Enterprise Energy-Saving Equipment Subsidy	-	-	49,425

- Note: 1. Pursuant to Article 29 of the "Statute for Encouragement of Private Participation in Transportation Infrastructure Projects" and the amended relevant provisions of the "Regulations Governing Application of Investment Credit to Private Participation in Transportation Infrastructure Projects", the Company applied for the issuance of Investment tax credits certificates for the entire high-speed railway construction and operation equipment purchased by the subsequent construction project. The investment deduction certificates were issued by the Ministry of Transportation and Communications on February 15, 2022.
2. The Company applied for a five-year exemption from profit-seeking enterprise income tax in accordance with Article 28 of the "Statute for Encouragement of Private Participation in Transportation Infrastructure Projects." On April 13, 2018, exemption from profit-seeking enterprise income tax for this case was approved by the Ministry of Finance, and the scope of tax exemption was determined in accordance with ticket fare income for passenger transport and transportation charge income for cargoes specified in Subparagraph 1, Paragraph 1, Article 3 of the "Regulations Governing Application of Profit-seeking Enterprise Income Tax Exemption to Private Institutions Participating in Transportation and Communication Infrastructure Projects." In addition, the Company has chosen to delay the commencement of tax exemption period to January 1, 2017 for exemption from profit-seeking enterprise income tax for five consecutive years within the scope of statutory tax exemption in accordance with Paragraph 2, Article 28 of the "Statute for Encouragement of Private Participation in Transportation Infrastructure Projects."
3. The Company applied the application for the tax incentives in accordance with Article 10-1 and Article 23-3 of the amended "Statute for Industrial Innovation."
4. The Company applied to the government and obtained electricity payment reduction and rent concessions and other relief package.

Operational Performance

Profile Disclosure	Unit	2021	2022	2023
Number of Train Services	times	46,792	54,054	54,991
Passenger Volume	thousands	43,460	54,162	73,087
Punctuality Rate (Arrival Within Five Minutes of Scheduled Time, Excluding Delays Due to Force Majeure)	%	99.00%	99.47%	99.58%
Reliability Rate (Excluding Delays Due to Force Majeure)	%	100.00%	99.99%	100.00%
Average Delay Time for Arrival at Terminal Station	minutes	0.29	0.24	0.19

2023 Financial Results

In 2023, the THSR travel volume repeatedly exceeded the previous record, reflecting the high demand for passenger travel between cities in the western corridor by HSR, and also drove revenue to more than \$48 billion. Based on sustainable operation, THSRC continues to optimize its financial structure and corporate governance performance. Since the Company was listed on the stock market, it has been included in MSCI Taiwan Index, FTSE TWSE Taiwan 50 Index, TWSE Corporate Governance 100 Index, TWSE RA Taiwan Employment Creation 99 Index, and the friendly ride environment Emerging Index as a constituent stock. In 2023, THSRC was once again selected as a constituent stock of the "FTSE4Good TIP Taiwan ESG Index" and was awarded an exclusive badge certificate. THSRC continues to conduct relevant assessment and decisions from the perspective of sustainable development in terms of governance, operation and financial planning, and is committed to improving the implementation performance of sustainable development and actively practicing corporate social responsibility.

✘ Performance Highlights

- In 2023, THSRC's annual revenue was NT\$ 49.8 billion, with a net income after tax of NT\$ 7.8 billion. This year, revenues and earnings increased by 34% and 107% respectively compared to 2022.
- In the current year, the Company continued to take measures to reduce the cost of capital to cope with the trend of rising interest rates, and the annual interest expense was NT\$ 6.8 billion.

✘ Action Plan

- In April 2023, NT\$ 10 billion principal of the Tranche A facility of the syndicated loan has been early prepaid again, which is able to save interest expenses. From 2016 to 2023, total of NT \$140.7 billion principal of syndicated loan has been prepaid.
- Successfully negotiated with the bank syndicate for syndicated loan to modify the terms of the loan contract, reduce the interest rate markup and reduce the interest expense.
- In 2021, THSRC issued a sustainability bond, and the funds raised were used to support the renewal of the station's passenger information system and the construction of automation equipment at the Yan Chao Main Workshop. The "Station Passenger Information System Renovated" has completed all the projects of the eight stations of the high-speed railway in 2022, providing passengers with more real-time and convenient travel information while in the high-speed railway stations, and improving the safety and convenience of passengers' transportation when riding on the high-speed rail; "Construction of Automation Equipment of Yan Chao Main Workshop" is currently in the construction stage. The pollution prevention and control, affordable basic living facilities and other categories invested in this plan will support the company to implement sustainable business concepts and policies, and the projects will have a positive impact on environmental protection, the overall image of the company and long-term operation and development, and effectively promote and implement the sustainable concept of THSRC.



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02 Professional Transportation

Transportation

Subchapter Title	Material Topics	Strategy	2023 Goals and Results	Targets (for the next three years).
 <p>Safety Services and Responsible Transportation</p>	Transportation Security and Management	<ul style="list-style-type: none"> Verify the implementation of safety management, etc., through the Safety Committee, which covers various levels and functions to manage issues such as reviewing safety performance. Perform regular audit to check whether the implementation of the safety management system meets the standards, and assess whether each unit has fulfilled its responsibilities and performs its functions in accordance with the relevant regulations, to ensure that the operation safety not affected by natural/man-made disasters. 	<ul style="list-style-type: none"> Maintain "zero" major train accident in 2023. Passenger safety performance reached the set permissible target. The target value for fatalities and serious injuries was 0, and the actual value was 0; the target value of the passenger/public minor injuries with the responsibilities attributed to THSRC was 0.06 person per million trips, and the actual value was 0.027 (the lower the minor injury value, the better). No passengers injuries due to natural disasters. In 2023, a total of 100 disaster prevention and safety training has been completed at various stations, depots and lines, including two large-scale joint drills and training events with external units and 24 operation change passenger transfer and connection drill, and joint mobilization by the Taipei Municipal Fire and Health Bureau, Railway Police Bureau, Railway Bureau, and Transportation Safety Committee. 	<ul style="list-style-type: none"> Maintain "zero" major train accident in 2022. Review safety performance and the implementation of safety management. Regularly control and Monitor hazard risk and maintain operational safety. Organize disaster prevention and safety training regularly.
 <p>Disaster Prevention with Professional Response</p>	Service Quality and Customer Relationship Management	<ul style="list-style-type: none"> Organize scheduled and unannounced drills for hypothetical scenarios, and evaluate the familiarity of colleagues with various emergencies response procedures and the effectiveness of relevant plans in accordance to the annual drill plan. Optimize the quality of software and hardware services to help minorities, disadvantaged or people with special needs to use THSRC services conveniently. Transportation friendliness-related plans include: <ol style="list-style-type: none"> Set up accessible ticket counters/ticket gates/toilets and elevators, and other passenger-friendly facilities. Car 7 is designed as an accessible car, and four seats are reserved for physically challenged passengers' companions to take care of the physically challenged passengers. Participate in central and local government traffic transfer coordination meetings to confirm that traffic management plans meet the needs of passengers and THSRC stations; and plan taxi scheduling and the increase the number of express bus services in advance to ensure flexible scheduling, and adjust the train maintenance schedule and frequency. 	<ul style="list-style-type: none"> In 2023, 100 drills have been conducted, with a total training compliance rate of 100%. In 2023, the adjustment of barrier-free facilities and equipment has been completed, and the barrier-free slope slabs in taxi passenger areas was installed to provide a friendly environment. A total of 88,726 passengers received the guidance services in 2023. In 2023, the number of express bus departures totaled 260,265, including 1,279 additional trips during long-weekend holidays. Since some express bus routes have been adjusted to at most one station per station since July 1, the number of buses throughout the year is still 15.3% lower than in 2022. The number of scheduled taxi trips exceeded 3.72 million in 2023. 	<ul style="list-style-type: none"> Improvement of taxi scheduling counter. Replacement with intelligent bus stop signs and information boards. Platform improvement at Miaoli Station / Changhua Station / Yunlin Station.

Safety Services and Responsible Transportation

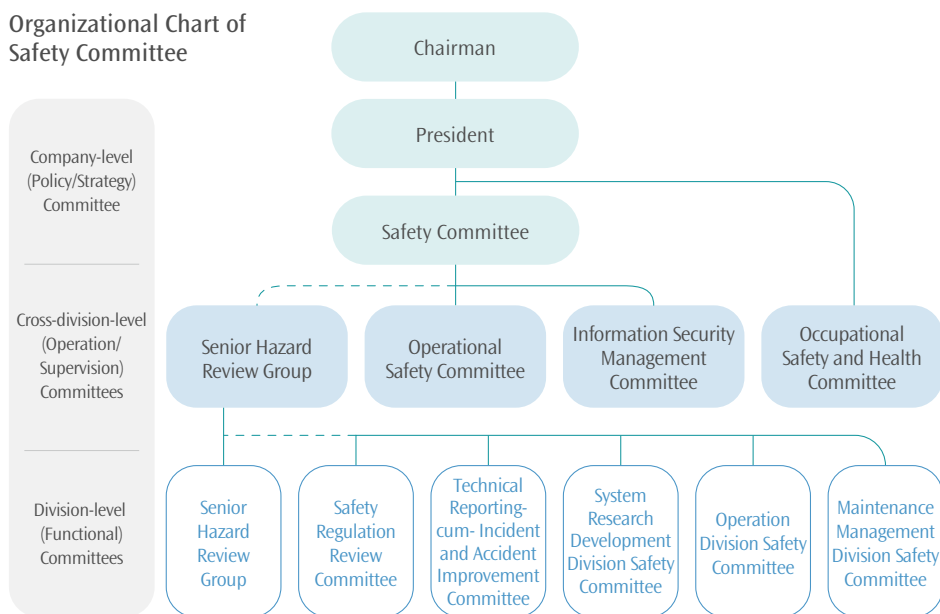
Safety is the operating principle and core value of THSRC, and is also the responsibility and commitment to every passenger. We monitor operational safety through a sound management structure and continue to consolidate the culture of safety first. During the 16 years of operation, we have always maintained zero operation accident. In 2023, the THSRC has an average daily ridership of nearly 200,000 passengers, an average delay time of only about 0.19 minutes and train punctuality rate has reached 99.58%. This is a clear demonstration that THSRC provides high-speed rail travel services that can be trusted by the public. Due to a safe, punctual, and comfortable travel experience, the company has been awarded the 20th National Brand Yushan Award with the "Outstanding Enterprise Category-First Prize", "Outstanding Enterprise Category", "Best Popular Brand Award", and "Best Product Award", showing the trust and recognition that the company's services and safety have gained from various stakeholders.

Safety Management & Culture

Dedicated Safety Management Framework

In order to ensure the safety of THSRC's operating environment, the Company has set up safety committees at 3 different levels to formulate prudent safety policies and implementation plans by the company-level safety committee, and regularly report significant issues related to operational safety to the Board of Directors. The cross-division-level Operational Safety Committee, functional committees, and division-level committees, executes strategies to ensure that each employee understands and abides by the Company's safety regulations. In addition, the employee work instructions stipulate that employees shall be assigned the management or execution responsibilities as per their job rankings to thoroughly implement safety management measures and shape a safety-oriented operating culture.

Organizational Chart of Safety Committee



Descriptions of Safety Committees at All Levels

Name of the Safety Committees	Main Duties	Frequency of Meetings	2023 Discussion Topics
Company-level Committee	<ul style="list-style-type: none"> Serve as the highest safety committee, and review major internal and external security issues on behalf of the Company, formulate safety-related policies and implement strategies to control corporate risks. Report all matters related to safety management to the Board of Directors. 	Meetings are held semiannually	<ul style="list-style-type: none"> Operational Safety Management Report (Semi-Annual Report). Results of Material Work Items on Operational Safety R Material issues of internal and external operational safety (legal requirements, cases of external material traffic accidents) Safety Performance Allowance in 2024
Cross-division-level Committees	<ul style="list-style-type: none"> Responsible for managing and supervising the effectiveness of the implementation of the safety management system and reporting the operational status to the Safety Committee. 	Meetings are held at least once per quarter	<ul style="list-style-type: none"> Operational Safety Management and Functional Committee Report (Quarterly Report) Material issues of internal and external operational safety (legal requirements, cases of external material traffic accidents) and work item progress tracking Proposed Security Performance Allowances in 2024
Division-level Committees	<ul style="list-style-type: none"> Responsible for the daily operation of the indoor safety management system of each department or division Develop and review safety management strategies and review the performance of safety implementation Responsible for establishing Division-level Safety management strategies and confirming the relevant safety implementation performance within the division Provide a platform for supervisors and colleagues to discuss safety issues and review relevant safety performance 	Meetings are held once a month	<ul style="list-style-type: none"> Hazard review Safety Regulations Review Operational Safety Technical Issues Analysis and Improvement Suggestions for Operational Incidents In line with the updated management review highlighted in the latest version of the Operational Safety Plan, the Hazard Review Team will add a report on safety issues related to morphological control (to be implemented in 2024). Cooperate with the division-level on-site operation safety management to propose guidelines or strategies, review and coordinate the safety and health-related business of the subordinate units, review the non-conformance reports, and authorize appropriate improvement measures

Note: 1. The Company-level Safety Committee convenes a meeting every six months. The Occupational Safety and Health Committee, as well as the Operational Safety Committee and the Information Safety Management Committee at cross-division-level convene a meeting every quarter. The Operation Division Committee, the Maintenance Management Division Safety Committee, the System R&D Safety Committee, and the Hazard Review Group (HRG) at division-level convene a meeting every month. (The System R&D Safety Committee was established in November 2023. The "Operational Safety Committee" and the "Technical Reporting-cum-Incident and Accident Improvement Committee" decide whether to convene meetings depending on the occurrence of the incident, with no fixed frequency of such meetings.

2. The Occupational Safety and Health Committee is parallel to other safety committees and is tightly connected to employee safety. For more details, please refer to the sub-chapter titled "[Protection of Equity and Considerate Care](#)".

Operational Security Mechanism and Safety Management System

THSRC has implemented an operational safety management mechanism in order to mitigate and control safety hazards. It effectively applies internationally recognized risk assessment and safety management methods, ensuring that every operational process is executed according to the procedures. Quarterly, THSRC conducts comprehensive reviews on significant railway operational safety issues from the perspectives of legal regulations, systematic transportation, extreme disasters, safety management, and security affairs, both domestically and internationally. These findings are then presented to the Operations Safety Committee for review.

The THSRC has established a safety management system (SMS) for many years, formulating the "Operation Safety Plan" as the highest level of safety management guidelines. The plan encompasses 12 safety management elements, and through the P-DC- A (Plan-Do-Check-Act) process and principle, continue to control, supervise, improve the safety performance of the railway transportation system. This approach effectively achieves the goal of prioritizing safety. In response to the amendments to the Railway Train-Control Rules in 2022, which require railway organizations to implement safety management systems, THSRC also cooperates with the regulator to promote safety management mechanisms. The company has drawn on the experiences of international transportation and standardization organizations (such as the European Union Agency for Railways, the International Civil Aviation Organization, and the International Organization for Standardization) and references the results of previous safety management system reviews conducted by THSR (including incident/accident investigations, operational safety audits, and major internal and external issues). Based on these inputs, significant modifications have been made to the Operational Safety Plan, taking effect on January 1st, 2023.

- Plan**
- Safety goals and supervision
 - Safety responsibility
 - Risk management and control
 - System safety and change management



- Act**
- Safety document management and record maintenance
 - Communication on safety issues
 - Reporting, investigation, and analysis of incidents and accidents

- Do**
- Contractor, supplier, and visitor management
 - Employee competencies and performance
 - Disaster prevention and response management

- Check**
- Safety inspection and audit

Safety Culture Promotion and Communication

In order to strengthen the protection concept of THSRC colleagues and partners on the protection of THSRC as a key infrastructure, we held 3 "Railway Industry Security Work Symposia" in 2023, including "Suspicious Object Handling and Response Practice", "Security Incident Handling and Response Practice", and "Differentiating Threats and Mobilizing Defense in Peacetime and Wartime" to promote exchanges and communication among colleagues in various units and jointly shape safety awareness. A total of 120 trainees participated, including front-line maintenance executives and supervisors. We look forward to effectively improving THSRC overall protection preparedness and emergency response capabilities through expert sharing and cross-unit discussions, and continuously improving the quality of security in the face of future new types of threats and challenges.



Suspicious Object Handling and Response Practice in 2023



Security Incident Handling and Response Practice in 2023



Differentiating Threats and Mobilizing Defense in Peacetime and Wartime in 2023

In order to communicate with the external parties that THSRC attaches great importance to operator safety, we held total of four times media events for THSR transportation safety in 2023. The topic includes "Train attendants emergency evacuation ladder deployment drill", "Fire extinguishing and first aid training for train attendant interns", "Comprehensive emergency response joint drills", "Measures to improve train maintenance schedules", and "Intelligent drone assisted bridge inspections".



Symposium on Human Negligence Management in 2023

To promote the systematic human error incident analysis and improvement mechanism to reduce the occurrence of related incidents, THSRC held total of nine human error management seminars in 2023. Through case study, on-site supervisor can have better understand on human-error issues, and seek corresponding improvement measures, laying the foundation for the next stage of safety management of the THSRC.

Station and Route Safety and Risk Management

Maintaining the smooth operation of tracks is the core of safety management of THSRC. THSRC's track maintenance personnel perform routine inspections after daily train operations. In addition to routine track inspections, daily maintenance and examination of THSR facilities includes stations, trains, mechanical and electrical facilities, civil structures, and route safety, which covers the safety inspection of various facilities. At the same time, various professional technologies are used to maintain transportation safety, such as Train Vibration Automatic Measurement, Ultrasonic rail inspection, Rail and turnout grinding and other daily maintenance operations. The actual safety inspection performance in 2023 includes a total of 1,800 turnout inspections, and routine track inspections and track irregularity inspections of 8,421 kilometers.

Train Inspection and Maintenance Performance in 2023

Type	Cycle	Number of Trainsets Maintained
Daily inspection	Every 2 days	5,182 trainsets
Monthly inspection	Every 30 days or 30,000 km	683 trainsets
Bogie Inspection	Every 18 months or 600,000 km	32 trainsets
General Inspection	Every 36 months or 1.2 million km	16 trainsets

Other Railway Maintenance Management Plans



Enhance Safety Awareness and Action

Adopt management systems, labor safety and hazard management mechanisms, employee safety training, and internal / external professional training to enhance safety awareness and professionalism. Purchase track advanced maintenance / testing equipment, engage in domestic development of rail equipment/spare parts, conduct technical exchanges and improvements in the track industry, and provide track's professional training.



Equipment Replacement and Improve Industrial Communication

Purchase track advanced maintenance / testing equipment, engage in domestic development of rail equipment / spare parts, conduct technical exchanges and improvements in the track industry, and provide track's professional training.



Develop and Adopt Professional Technology

Adopt track alignment measurement, optical track measurement, visual track inspection, train waving automatic measurement system, ultrasonic rail testing, rail and turnout grinding, and rail lubrication technique.

THSRC has established a Hazard Review Group to implement risk management and control. The group is comprised of professionals from various fields within the company. It holds a monthly regular meeting to review hazard information and identify hazard risks while confirming whether appropriate procedures and technologies are implemented so as to put forth countermeasures to mitigate such risks. As for the end of 2023, all hazard risk levels identified at the HRG meetings were within the acceptable risk tolerance range. THSRC's regular or irregular inspections will continue to be carried out by local engineers and security personnel, and the "hazard control record sheet" will be updated monthly to reduce the risk of such hazards.



2023 Maintenance – night-time turnout grinding



2023 Maintenance - Rail grinding

Disaster Prevention with Professional Response

Train Safety and Disaster Prevention and Response

Factors affecting the safety of THSR trains can be divided into three categories, including: natural factors, human factors and equipment abnormality (see the table below). In accordance with the overall prevention and contingency plan for the three categories of disasters, the Company puts the safety of passengers and personnel first, formulates emergency procedures to respond to actual disasters, and takes various measures to improve and resume operations through cooperation between internal and external units.



- ◆ Natural factors
Earthquakes, typhoons, heavy rain, landslide, rock fall, etc

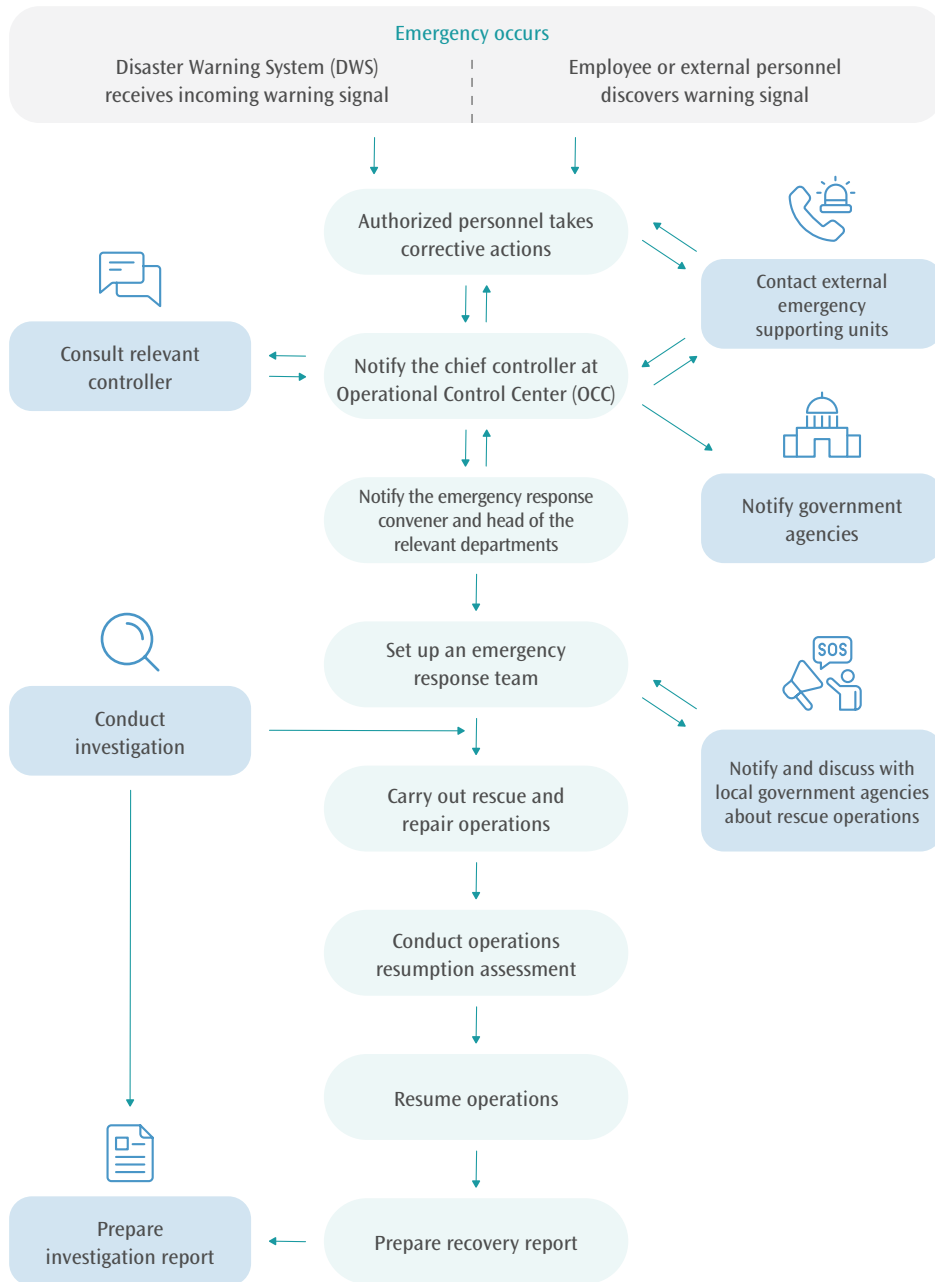


- ◆ Human factor
Destruction of equipment, arson, explosives, violent attacks, hijacking, etc



- ◆ Equipment Abnormality
Signal system failure, turnout failure, train bogie failure, low hanging tram lines, etc

Emergency Response Flow Chart for Various Disasters



Natural Factors - Natural Disaster Prevention and Response Mechanisms

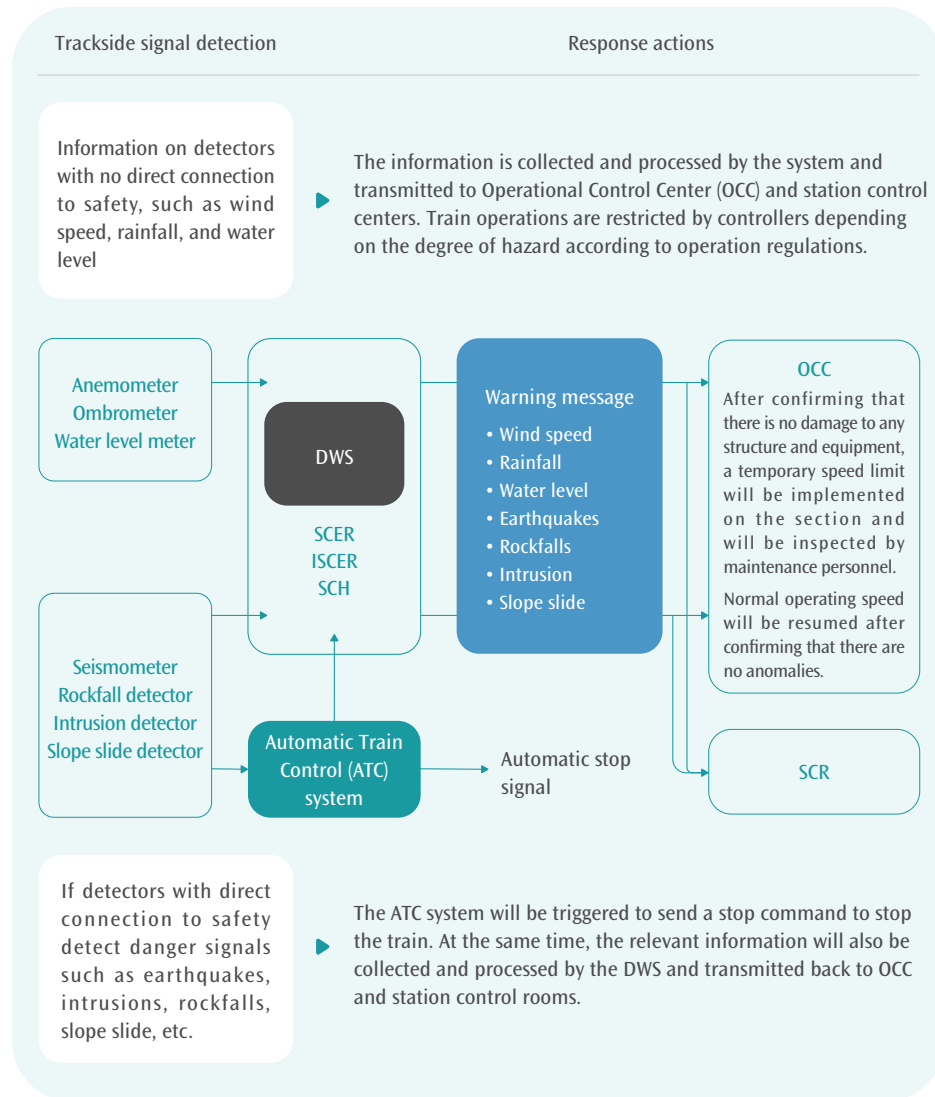
THSRC has adopted relevant laws and regulations on disaster prevention and fire safety as the basis for the formulation of internal plans and measures, and each station or depot implements various disaster prevention tasks as per the internal plans. The standard operating procedures for disaster response are also independently inspected for safety by international experts in the final inspection phase to ensure that the procedures can cope with various potential disasters that affect transportation safety. All operating procedures are regularly inspected and revised in accordance with regulations, and all inspection operations are completed according to the frequency of inspection during the epidemic period in compliance with epidemic prevention regulations to ensure the reliability of equipment. The relevant disaster or emergency response operation rules and procedures of each unit shall be reviewed at least once every three years, and the effectiveness shall be periodically reviewed through legal compliance operations every quarter; the relevant emergency response procedures shall be continuously improved at each emergency response operation review.

Natural Disaster Prevention Measures

Type of Prevention	Position of Prevention	Content of Prevention Measures
Passive Prevention	Station facilities and operating trains	<ul style="list-style-type: none"> Construct station facilities and operating trains using fire-retardant, fire-resistant, low-smoke, and non-toxic materials according to fire prevention and environmental protection regulations, as well as regulations of the US National Fire Protection Association
Predicted or Knowable Disaster Prevention	THSRC operation sites and operating trains	<ul style="list-style-type: none"> Initiate typhoon/rain prevention preparations in advance through interpretation of typhoon/heavy rain warnings and weather information Formulate the "Overall Disaster Prevention and Response Plan for Taiwan High Speed Rail Traffic Accidents" with the Ministry of Transportation and Communications (MOTC), and establish supporting and assistance mechanisms with central and local rescue units
Detection and Prevention along Operating Routes	Operating trains	<ul style="list-style-type: none"> Install natural disaster warning detectors along the THSRC line, which are directly connected to the automatic train control system and can automatically stop trains immediately if there are earthquakes, landslide, and rock falls that directly affect train safety
Earthquake Prevention for Civil Structural Facilities	Elevated bridges, tunnels, and flat sections	<ul style="list-style-type: none"> The seismic strength of civil structures is designed with a 950-year return period to ensure operational safety

THSRC's trains are equipped with Disaster Warning System (DWS), if earthquakes, rockfalls, landslide, road vehicle intrusion and other safety-related danger signals are detected, the automatic train control system will be triggered to send a stop command to stop the train. Intrusion Sensor include three types of sensors, including rockfall, landslide and road vehicle intrusion, which are installed on road sections with higher risk according to the characteristics, such as a total of 28 road vehicle intrusion detectors were set up above the tunnel portal or on the viaduct with high risk of vehicle intrusion. In 2023, THSRC completed the three-year repair project of the disaster warning system to ensure the stability and reliability of the system, and there were no train delay caused by abnormal intrusion detector. In the Hualien earthquake that occurred in April 2024, the HSR disaster warning system immediately suspended the operation and activated the emergency response measures after detecting the earthquake warning, and coordinated with the each unit through the operation control center to complete the emergency response and safety inspection within 5 hours and resume according to the schedule.

DWS Framework



Note: 1. SCER: Signaling and Communication Equipment Room
 2. IS CER: Intermediate Signaling and Communication Equipment Room
 3. SCR: Station Control Room
 4. SCH: Signaling and Communication Hut

Relevant information on the actual natural disaster events affecting the THSRC operation in 2023 is as follows:

Natural Disaster Events Affecting Operations

Event	2023	Response Methods
Super Typhoon Mawar	May 29th	In response to the scale and scope of the typhoon, the Company set up a four-level Emergency Operations Center, typhoon had no impact on the THSRC's operating facilities.
Super Typhoon Doksuri	July 25th	In response to the scale and scope of the typhoon, the company set up a three-level Emergency Operations Center, typhoon had no impact on the THSRC's operating facilities.
Typhoon Khanun	August 1st	In response to the scale and scope of the typhoon, the company set up a three-level Emergency Operations Center, typhoon had no impact on the THSRC's operating facilities.
Super Typhoon Saola	August 29th	In response to the scale and scope of the typhoon, the Company set up a four-level Emergency Operations Center, which had no impact on the high-speed rail operating facilities.
Typhoon Haikui	September 1st	In response to the scale and scope of the typhoon, the Company set up a second level Emergency Operations Center, typhoon had no impact on the THSRC's operating facilities.
Chiayi Earthquake	September 5th	After the main seismometer detects an earthquake warning, DWS automatically set the TSR to 0 in the affected area, and the trains in the affected area automatically applied emergency brakes to stop. According to the standard operating procedures, after necessary inspections by OCC, the train will gradually increase its speed from a low speed to perform post-earthquake track inspections. After the train waving test and inspection were completed, normal operation was resumed.
Typhoon Koinu	October 2nd	In response to the scale and scope of the typhoon, the Company set up a second level Emergency Operations Center, typhoon had no impact on the THSRC's operating facilities.

HSR Slope Safety Maintenance

THSRC established Taskforce of HSR Slope Safety Assessment and executed HSR Slope Safety Assessment Plan to audit the slope safety. Several improvement plans are conducted based on the evaluation report. Installation of horizontal drains for the slope in HSR Earthwork Section has been completed in March 2023 to reduce the groundwater accumulation effectively, and completed the upgrade of the slope automatic monitoring system in September 2023, which strengthen resilience to disasters. Slope preventive improvement project were carrying on, including the completion of the permanent slope restoration project of TK126 followed by the improvement of three slopes at TK93 to enhance slope stability.

Human factors - Man-made Disaster Prevention and Response Mechanisms

As for man-made disasters, THSRC not only develops a "Material Man-Made Security Incident or Terrorist Attack Contingency Plan" to facilitate coordination with government agencies and to set up operational mechanisms, but also intensifies safety training planning according to different scenarios such as "suspicious bags and explosions", "poisonous chemicals" or "train or station random homicide"; when actual man-made disasters occur, different execution plans are drafted according to crisis prevention, actual response, clean-up and restoration, etc. The relevant instructions are as follows:

- ◆ Crisis prevention stage: THSRC police are engaged to assist in maintaining station order and safety of train services, and a security company is also contracted to maintain order at stations, right-of-way of equipment, and safety of train services. In addition, dedicated personnel are assigned to monitor the closed-circuit television cameras at various stations, important server rooms along the rail, or tunnel entrances. For detailed information on security management, please refer to the "[Partner Relationship Management and Local Supply](#)" chapter of this report.

- ◆ Actual response stage: In the case of man-made safety incidents, THSRC will immediately activate the crisis management and control mode. The key actions include rescue, evacuation guidance, isolation of the scene, access control, and notification of railway police.
- ◆ Clean-up and recovery stage: After the on-site investigation and evidence search are completed and approved by the judicial authority, the on-site clean-up and recovery operations will be carried out. In the early stage of resumption of operations, inspections and patrols will be enhanced, and the scale of the police on duty will be increased as support.

Equipment Abnormality - Abnormal Prevention and Response Mechanism

Regarding the handling of abnormal equipment, THSRC carries out the repair and maintenance of circuit boards/modules of all train cars of the train system, the repair and maintenance of the switch of the signal system and electronic equipment, and turnout equipment reliability improvement project through the electronic maintenance center, while auditing and inspecting the maintenance records to strictly control the safety of the transportation equipment.

Disaster Prevention and Safety Training

In addition to planning overall preventative and contingency measures based on three types of hazard factors such as natural factors, human factors and equipment abnormalities, the THSRC has also conduct regular and unscheduled drills for various hypothetical scenarios, so that employees at all levels are familiar with the emergency response procedures for various kinds of emergencies. In 2023, to part with the haze of the epidemic, we expanded safety training and disaster prevention and rescue exercises to improve the emergency response capabilities of various units. We continue to refer to the experience of various railway incidents at home and abroad and the "Taiwan High Speed Rail Overall Disaster Prevention and Response Plan" approved by the Disaster Management Council of the Executive Yuan, the laws and regulations, the requirements of government units and the review of abnormal incidents of high-speed railway companies, to formulate an annual disaster prevention and rescue exercise training plan, and plan and promote various disaster prevention training and rescue exercises with foreign aid units in various places to familiarize ourselves with the joint command and response mechanism, and improve on-site rescue and prevention capabilities. In 2023, THSRC completed a total of 100 disaster prevention and rescue drills (training) at various stations, depots, and routes. In response to the review of the Southeast Cement Construction Incident, the "operation change passenger transfer and connection drill" have been added this year compared with 2022.

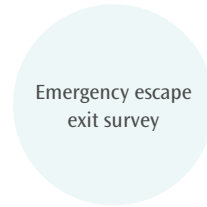
Safety Training Categories in 2023

Internal Training for Site Commanders and Disaster Relief Engineers

- Held one new training session for THSRC site commanders and disaster relief engineers, a total of 43 personnel participated in the training.
- No On-site conducting and online retraining for qualified personnel with on-site command in 2023

Disaster Prevention and Response Mechanisms Seminar

- Invited foreign aid units along the high-speed railway (Ministry of Environment Chemical Bureau, Fire, Police, Health, Environmental Protection and Medical Emergency Response Center and Professional Technical Team) and supervision units such as the Disaster Prevention and Relief Office of the Executive Yuan, the Transportation Committee, the Ministry of Transportation and the Railway Bureau to participate in the high-speed railway disaster prevention mechanism training, a total of 94 participants



- To help disaster relief personnel along the line familiarize themselves with the traffic flow and operating environment of emergency exits along the high-speed rail, the THSRC has invited the outsourcing units along the high-speed rail line (Ministry of Environment Chemical Bureau, Fire, Police, Health, Environmental Protection and Medical Emergency Response Centre and professional technical team) and emergency passenger operators, etc., to jointly survey the emergency escape port of the disaster relief traffic lines and the operating environment in May and November, will jointly survey the high-speed rail line 184 emergency escape exits, jointly confirm the large-scale disaster relief vehicles in and out of the flow line, disaster relief vehicles assembly location, etc., and included in the revision of the evacuation map for disaster relief units' reference.



- A total of 100 disaster prevention and rescue drills (training) were completed at various stations, depots and routes. The detailed training records are shown in the table below.

2023 Disaster Prevention and Rescue Drills Training Record

Drill Training location	Station	Route	Building	Unscheduled Test	Others	Total
Number of drills in 2023	80	7	5	7	1	100
Number of drills in 2022	79	7	5	6	1	98
Number of drills in 2021	67	6	5	6	3	87

Large-scale Joint Drills and Training Events in 2023

THSRC conducts various disaster prevention drill exercise annually to simulate the response measures after disasters occur, so as to reduce the impact of accidents and improve the overall disaster prevention and response capabilities. After 3 months discussion and preparation, on the night of September 7, 2023, the "Nangang Station Major Security Incident and Fire Drill" was conducted, simulating the discovery of suspicious parcels in accordance with the H.O.T. principle (H: whether it was hidden, hidden O: Whether it is obviously suspicious, T: whether it is a subject that can be seen in the usual Typical location). Upon confirmation, several actions has to be taken including notify the Fifth Investigation Team of the Criminal Police Bureau to remove the parcel and block the scene, and the fire information delivered when the train enters the station, how the train crew cooperates with the station to evacuate the passengers on the train and how the station performs the operation change connection process. Over 200 individuals participated in the exercise, including relevant employees of the company and joint mobilization by the Taipei Municipal Fire and Health Bureau, Railway Police Bureau, Railway Bureau, and Transportation Safety Committee.



The fire brigade assisted in evacuating injured passengers to hospital



The on-site commander of the Ministry of Transportation and Communications conducts command at the forward command post

Smooth Travel in Adherence to Commitment

Traffic Dispersion and Transfer Services

Traffic Dispersion Measures

THSRC adopts rigorous internal procedures to draw up dispersion plans and submit them to the Ministry of Transportation and Communications (MOTC) for review before execution. At present, a total of 34 groups of trains are available to provide service, and the planning of the train schedule takes into account the needs of each time period, the expected occupancy rate, and the available fleet resources, and carries out shift planning to maximize the transport energy of the train and meet the travel needs of the public.

Traffic Dispersion Scheduling Measures

Period of Occurrence		Traffic Dispersion Scheduling Measures
Weekdays	Monday to Thursday	Temporarily increase the number of trains according to the number of passengers on the current day
Peak Weekend Periods	Friday to Sunday	Move certain maintenance operations to weekdays to increase the number of usable trains during holidays. Temporarily increase the number of trains on the current day according to the number of passengers on the current day during the peak weekend period.
During Long Holidays	(e.g., Lunar New Year, Tomb-Sweeping Day, etc.)	Control maintenance operations and provide maximum ridership to meet transportation demand. In order to disperse large numbers of passengers, temporarily increase the number of trains according to passenger demand on the current day during the traffic dispersion period for long holidays.

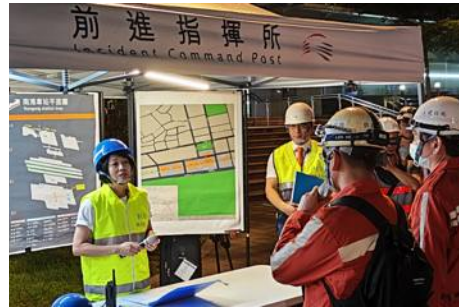
Overall HSR transport volume increases in 2023. Therefore, THSRC has increased the total travel services per week from 1,016 to 1,025 travel services since 1st July, and further increase to 1,039 travel services per week from 16 October. In response to travel demand, short-term additional travel services have been added during middle-end August, and from November to December to expand HSR service capacity.

Transfer Services

THSRC offers transfer or shuttle services in collaboration with various modes of public transportation at various operating locations, including shuttle bus, Taiwan Railways Administration (TRA), Mass Rapid Transit (MRT), public bus/express bus, taxis, parking lots, car leases, as well as pick-up and drop-off services for the physically challenged passengers. Moreover, THSRC has prepared transfer maps and established a transfer information system for passengers to consult, while providing transfer information at each HSR station on its [corporate website](#) and [THSRC APP](#).



Transfer of command



Technical engineering team draws up preliminary repair plan

In order to implement consolation and immediate medical care for injured passengers and their families when major disasters happen, THSRC has established the "Care and Consolation Team" in North, Central, and South part of Taiwan to provide relevant support and company, including care and consolation telephone lines, family contact, medical assistance, legal consultation, and funeral and other consultation on various needs.

Safety-first 24/7 monitoring

The command of the overall operation system of THSRC is controlled by the Taoyuan Operation Management Center, including route control, signaling and safety interlock, power control, communication, data transmission or monitoring alarms equipment. Through 24/7 real-time monitoring, THSRC keeps abreast of the status of the operation and night maintenance along the entire HSR line while maintaining close contact with the station control centers, depot control centers, and external emergency supporting units to ensure transportation safety.



THSRC OCC

Sustainability Commitment

Transportation Inclusion

In order to provide a friendly and inclusive accessible ride environment for all passengers while actively responding to the Sustainable Development Goals simultaneously, SDG 9 of "building affordable, safe, eco-friendly, resilient, and sustainable transportation", THSRC has installed reminder signs at multiple locations in the stations to guide the elderly, wheelchair-bound, physically challenged passengers, and those with large luggage or strollers. Through sound and complete station/train services and facility planning, every passenger will be able to have a pleasant travel experience. Relevant services and facilities are as follows:

01



Stations

- In 2023, the station completed the adjustment of the location of barrier-free toilet facilities, and the addition of movable barrier-free slope slabs in taxi passenger areas to provide a friendly environment.
- Set up accessible ticket counters/ticket gates/toilets, elevators, and other service facilities are provided, and call bells are installed in the accessible restroom to assist to passengers at any time.
- For elderly passengers traveling alone, passengers in wheelchairs or those with limited mobility, THSRC has specially prepared bus guidance services to assist them in and out of the station. In 2023, 88,726 passengers with guidance needs were assisted to board the bus.
- Guide bricks from the temporary parking area to the service desk have been installed at Taipei Main Station in 2023 to assist the visually impaired in guiding them between boarding and service needs.

02



Trains

- Car 7 is designed as an accessible car, and four seats are reserved for physically challenged passengers' companions to take care of the physically challenged passengers. The seats and accessible restroom are equipped with call bells. The physically challenged passengers can use it to call the train crew for assistance when necessary, and there are also charging sockets for electric wheelchair charging.
- There is a secure and private breastfeeding room at the entrance of car 5 of the THSR train. The train crew will also introduce the breastfeeding room equipment as per the passengers' needs to provide a warm and safe travel environment for mother and baby passengers.
- Large luggage storage areas are added in cars 3, 5, 9, and 11 for storage of luggage as well as folding wheelchairs, mobility aids, and strollers.
- There is a "seat map information system" at the train master compartment with a built-in reminder function for boarding guidance, reminding passengers with disabilities of the boarding section and the passenger assistance items (such as borrowing a wheelchair at the station). The prompt sound and reminder screen in the system will be turned on before passengers get on/off the train, so that the train crew can provide more complete and considerate services quickly and accurately.



Set up elevator signs for the elderly, wheelchair-bound, physically challenged passengers, and those with large luggage or strollers.



There are four accessible seats in car 7



There is a breastfeeding room in car 5 for female passengers who need to pump breast milk and breastfeed



Add a ramp to the scheduled taxi boarding area



Add large luggage storage areas in cars 3, 5, 9, and 11



Install handrails in squatting toilets at railway stations

- Internally, THSRC also arranges train guidance service courses for new station staff and train crew members to learn guidance operations for wheelchair-bound and visually impaired and other disadvantaged groups of passengers. In addition to arranging external lecturers to explain service skills, practical experience trainings are also arranged for colleagues to enable them to better understand the practical operation precautions and meet the needs of passengers.



In-station guidance training



In-station ride guidance training

Innovation and Technology

Technology

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03 Innovation and Technology

Technology

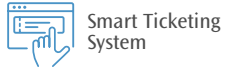
Chapter name	Major topics	Strategies	2023 Goals and Results	Targets (next three years)
 <p>Sincere Services and Intelligent Transportation</p>	Technological Innovation	<ul style="list-style-type: none"> Establish the "Origination Process of Business Process Computerization Regulation" and "Acquisition of IT System and System Development Regulation" to ensure that collaborative operations among all units can smoothly promote innovative services. Continue to apply new technologies in order to improve the convenience of ticketing services, the smoothness of ticket purchase channels, and the efficiency of train operations, while using digital innovation to meet customers' needs for ticket purchases on mobile devices and strengthening communication immediacy. Strengthen the service delicacy and accuracy of Artificial Intelligent Customer Service, and continue to improve service quality and efficiency. Continuously collect opinions through customer satisfaction feedback, and strengthen the efficiency of customer service operations to improve customer experience and the quality of Artificial Intelligent Customer Service responses. Continuously apply technology to establish operational safety systems and facility protection operations to enhance transportation safety and efficiency. 	<ul style="list-style-type: none"> In 2023, conducting drone flight preparation operations, including equipment preparation, flight site survey, flight activity application, flight route planning and simulation, etc As of the end of December 2023, the cumulative number of the downloads of THSRC T Express APP had exceeded 14.99 million. The average accuracy of Artificial Intelligent Customer Service was 95.7%, with average of 97% satisfaction. Additional credit card payment function for on-train ticket purchase and also multiple electronic payment function and credit card payment function for on-board serving trolley in 2023. Optimization digital marketing through brand cooperation and established TSHRC membership core's business ecosystem by digital transformation. Complete the pre-operation plan for digital transformation of security management, and establish a Smart Cloud for Safety as an operational security data cloud platform and security management tool Promote the critical infrastructure (CIP) protection (plan) operation platform in 2023 Complete planning and evaluation of the functional requirement of EDTMS Continue to improve the e-security management (SATS) system 	<ul style="list-style-type: none"> Intelligent drone assisted bridge inspection operation will be implemented in 2024 to reduce the operator safety risk and improve operation efficiency. Planning introduce E-Coupon as part of ticketing channel and fully digital fixed/coupon ticket. Universal software and hardware design to create an age-friendly environment Continuously develop and optimize the business platform to promote the economy of membership points Establish HSR T-MaaS to digitize passengers' riding environment Continue to promote the development of Smart Cloud for Safety project systems Planning for the development and launching of CIP operating platforms Optimized user-friendly interface of the website/app Optimization, trajectory collection and application related to digital platform diversion construction EDTMS plans to build and test the tabletop performance system in 2024 and conduct education and training, and introduce speech recognition tools in 2025 The electronic security management (SATS) system will be verified and launched in 2024
	Privacy & Information Security Management	<ul style="list-style-type: none"> The head of each office and department establishes an information security committee, which holds an information security management review meeting every six months to supervise the development direction and implementation results of information security, so that the information security management system continue to operate steadily. Perform audit of the relevant units involved in personal information security management operations as per the "Management System Internal Audit Regulation" so as to keep abreast of the status of each unit's implementation of security maintenance measures related to personal information protection. Develop a procedure for "The Plan Of Security Measures For The Personal Information File" , and hold meetings regularly for overall exam-ination to ensure that personal information is fully protected. To provide passengers with safe, convenient and reliable information services, including the collection, processing or use of passengers' personal information Continue to supervise colleagues and vendors to implement information security protection work through the verification of ISO 27001 information security management system and the promotion of "information security management system". Integrate existing safety/response information system to enhance the response efficiency 	<ul style="list-style-type: none"> Perform audit by a third party once a year to maintain the effectiveness of the ISO 27001 information security management system. Perform the internal information security audit twice a year to review the implementation of information security of the user units and management units. Hold Information security and personal information awareness educational training regularly every year. Introduced a real-time membership checking mechanism into the various ticketing systems, and TGo has reached 2.418 million registered members by the end of 2023. Performed the third-party information security audit in October 2023; conducted the internal audit of information security in April and September 2023, respectively. Conducted a total of three hours per person of information security education and training every year. Strengthened the awareness of information security and personal information protection of employees through education and training. In 2023, 100% of the employees completed the educational training. Management operational data digitally in 2023, builded an operational security incident reference system, and provide statistical analysis for decision-making Integrated Safety Mall and Mobile Information/Security incident response information System as a reference for the emergency response center and on-site units in 2023. 	<ul style="list-style-type: none"> Established and ensure that personal information security policies are continuously updated Plan personal information (privacy) and information security education program Identify personal information (privacy) and information security risks, and establish information security incident response plans Continuously ensure that risk is at an acceptable level
 <p>Convenience, Attentiveness, and Maintaining Relationships</p>	Quality of Service and Customer Relationship Management	<ul style="list-style-type: none"> Adopt multiple channels to actively respond to customer feedback and maintain high-level service quality Establish "Feedback Collection Channels and Customer Service Operations System" and "Current Customer Complaint Resolution Mechanism" to keep abreast of and respond to customers' needs accurately. Maintain the safety and quality of travel and transportation through external quality inspection and internal pattern identification. Strengthen the service quality of attendants, optimize facilities and services of stations and trains, and sell wider variety of products. 	<ul style="list-style-type: none"> Analyze customer opinions received from Contact Us by e-mail, Artificial Intelligent Customer Service, and customer service center to collect passenger feedback and continue to optimize services. Add a tracking mechanism to the Customer Response Handling System (CRH) to remind the responsible units to report on the progress of improvement, and implement the improvement to ensure service quality. Manage the execution progress of each marketing project through regular meetings and closing reports, and track the achievement of targets In 2023, the result of the online survey showed the overall service satisfaction was 93%. The average of service satisfaction on four major service orientations(ticket services/station facilities and services/car facilities and services/extended transportation service) was 94% and the customers had paid 96% to 97% importance, and 91% to 96% high satisfaction rating. No personal information leakage in 2023 	<ul style="list-style-type: none"> Continuously optimize customer service Continuously track the progress of improvements Maintain overall customer satisfaction

Sincere Services and Intelligent Transportation

Through digital transformation, THSRC continues to optimize the "THSRC ITS Smart Railway Services System" to provide passengers with a pleasant riding experience. Improve overall service quality and operational performance through Smart Ticketing Services, Smart Passenger Services, Integrated i-Traveling Information, Smart Train Operation, and Smart Safety & Emergency Management. For specific actions, please refer to the following table:

THSRC ITS Smart Railway Services System

01



Smart Ticketing System

- Complete the software optimization of the ticket counter equipment in the stations and the upgrade of the network equipment.
- Create the booking chatbot feature on the T Express App, and also develop the T Express App for smartwatches to provide a more accessible and better user experience.
- Non-reserved seat Ticket purchase through Bluetooth connection with T Express App in THSRC station has added to enhance the convenience of passengers
- Complete the THSRC App fixed/coupon repurchase service.

02



Smart Passenger Service

- Artificial Intelligent Customer Service provide passengers with 24/7 access to to frequently asked questions and customized inquiry services.
- Ticket window information display system.
- Train and seat details information display on the passenger information display system to assist passenger boarding.
- Multiple payment methods provided for the trains services payment including train fare adjustment, on-board serving trolleys, and station bento counters.

03



Integrated i-Traveling Information

- The T Holiday provides diverse travel information and offset of travel expenses via membership points.
- The online redemption and seat reservation function of THSR's One-Way Tickets is optimized to make it easier for overseas tourists to buy tickets. From September 21, 2022, it has been adjusted to issue magnetic tickets, and passengers can swipe the new format of the ticket to pass through the gates to enter and exit the station.
- Multiple tickets collection channels are provided to improve the passenger's convenience during peak-season and replacing paper tickets.

04



Smart Train Operation

- Adopt the "Train Operation Management Information System (TOMIS)" to consolidate train number, running position, train schedule, and other travel information to assist train crew members with proper transportation management
- Introduce graphical data and cross-query functions into various systems to strengthen the efficiency of train operation management
- The "Intelligent Train Crew Duty Report System (IDRS)" provides crew members with online maintenance and duty roster query to improve the efficiency of transportation management.
- The "OCC Mimic Panel Display Intelligence Integrated System" is planned to analyze the real-time turnout position mapping with schedule route setting, so as to strengthen the safety and efficiency of train operation management.

05



Smart Safety & Emergency Management

- Manage the THSRC's historical operational data digitally, set up an Operating Activity Safety Incident System, and provide statistical analysis for decision-making reference.
- Continue to develop a self-owned earthquake early warning system, review and improve the earthquake inspection operations, provide suggestions for the best response decisions, and reduce the risk of earthquake disasters
- Integrate existing safety/emergency information systems (Safety Mall, Mobile Information, etc.) for emergency operations centers and field units to support emergency reference and improve emergency performance.
- Cooperate with the Institute of Industry and Research to develop an unmanned aerial vehicle bridge inspection and maintenance system, carry out 27 tests in 2023, and is expected to be handed over to the user unit in October 2024 which is applied on facility inspection and maintenance and disaster relief surveys, and establish a database of inspection targets to improve detection performance and quality.

Passenger Services

Strengthening Customer Relationships with Optimized Experience

THSRC launched the individual membership mechanism "TGo membership program" in October 2017, enabling customers to purchase tickets as THSRC members and accumulate points through consumption to redeem THSR tickets or enjoy discounts. To deepen customer loyalty and engagement, THSRC established the "TGo 365" point redemption platform in July 2020, which combines external enterprises and shops in THSR stations. Nearly 300 merchandises allow consumers to redeem with credits, deepen the value of high-speed railway TGo members through cross-industry alliance benefits, and enhance the business opportunities of cooperative merchants. By the end of 2023, the "TGo Membership Program" has accumulated more than 2.418 million members, which is an 19.9% increase over the previous year, and the "TGo 365" point redemption platform has created nearly 500,000 merchandises redeemed in 2023, which is beloved by members.



Promotional Visual for the TGo Membership Program



In addition to continuously optimizing the membership mechanism, THSRC has also improved the convenience of ticketing services through multiple ticketing channels. The TGo Member ID real-time verification mechanism, which was launched in 2020, improves the accuracy of members' ticket purchases in each booking system — including ticketing windows, ticket vending machines, websites, convenience stores, smartphones, and other channels. From August 2022, TGo members can directly select the "credit discounted fare" service when purchasing tickets offsite channels. By the end of 2023, in addition to the existing ID card number or membership card number, a new verified mobile phone number will be added to the relevant channels to enhance the convenience of ticketing services. Furthermore, we have optimized the T Express App mobile ticketing application to continuously improve the utilization rate of mobile channels and the quality of mobile ticketing services. In addition to the TGo members who can enjoy preferential discounts for TGo members to buy tickets, we have added the "T Express Booking Chatbot" service and credit card binding and other functions, hoping to fit to the operation habits and needs of passengers. At present, T Express App has become one of the main channels for passengers to buy THSR tickets. In 2023, more than 21.07 million mobile tickets were issued.

Innovative Digital, and Real-time Communication

THSRC is committed to developing a multi-faceted information platform to broadcast public information related to transportation and promotional videos instantly, and assists passengers in accessing real-time information related to train schedule. To interact with customers and get real-time feedback and suggestions, THSRC provides information regarding the latest product and service through its Facebook fan page. The THSRC's Facebook Fan Page garnered 440,000 fans cumulatively in 2023, and the posts on THSRC's Facebook Page reached more than 6.39 million throughout the year. Advertising activities were also effective in raising brand awareness, for example, the 2023 Travel Revitalization Project reached more than 26 million people, the Spring Travel Promotion Project reached more than 14.5 million people, and the Online Travel Exhibition Project reached more than 9.23 million people.

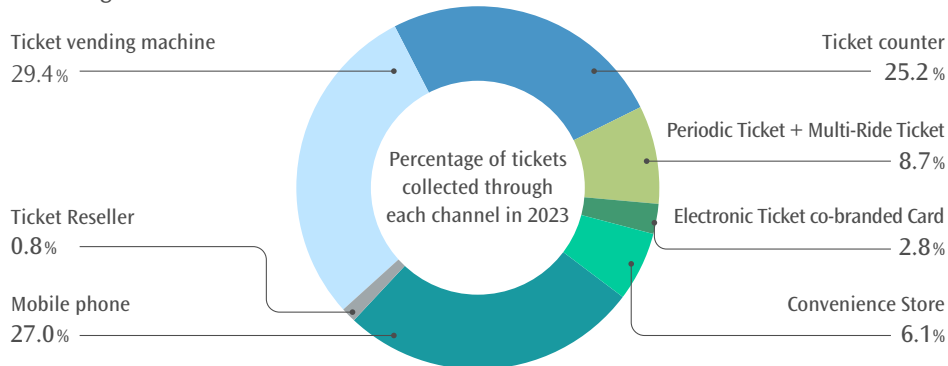
In addition to implementing the personalized mobile ticketing service "T Express App", THSRC is also creating a smarter travel service by emphasizing the multi-functional travel service "THSR App". "THSR App" creates a real-time communication system for consumers to provide customers with more comprehensive digital services member information, itineraries and offers to customers in real time. By 2023, the "T Express App" has accumulated more than 14.99 million downloads and the mobile payment rate has reached 44.4%, both of which have increased significantly compared to 2022 increasing 1.95 million downloads, demonstrating the digitalization results of the high-speed railway; in addition, the "THSR App" has accumulated more than 1.51 million downloads.



THSRC Multiple Ticketing Channels

Ticketing access	Ticketing mechanism	Main Updates in 2023
Stations	Ticket counter Ticket vending machines	<ul style="list-style-type: none"> • Ticket vending machines: In response to the aging society, the interface of the ticket vending machines at each station has been fully optimized, and the font display on the information page has been enlarged to provide age-friendly ticketing services. • Ticket vending machine: Passengers who have booked barrier-free seats through the customer service center will be provided with self-service ticket collection service for passengers who have completed the registration of their ID number.
Website	Online reservation system	<ul style="list-style-type: none"> • Provide the "Early Bird Discount" registered ticketing service to protect passengers' rights and interests in purchasing the "Early Bird Discount" and maintain the fairness of the discount. • TGo members use the verified mobile phone number to accumulating/burning points function.
Convenience Store	Convenience Store Ticketing Service (7-ELEVEN, FamilyMart, Hi-Life, and OKmart)	<ul style="list-style-type: none"> • Provide the "Early Bird Discount" registered ticketing service to protect passengers' rights and interests in purchasing the "Early Bird Discount" and maintain the fairness of the discount. • TGo members use the verified mobile phone number to re/ignite the function. • More than 13,000 stores nationwide (7-ELEVEN, FamilyMart, Hi-Life, and OKmart) provide passengers with convenient ticket purchase/collection services 24-hour. By December 2023, more than 5.04 million high-speed rail tickets have been issued by convenience stores
Smart phone	T Express APP (Including T Express Booking Chatbot)	<ul style="list-style-type: none"> • Through the new application of technology, the smartwatch barcodes sensing feature have been added for passing the gate, non-reserved seat Ticket purchase through Bluetooth connection with T Express App in THSRC station has also been applied to increase the convenience of passengers and reduce the use of ticket paper. • Reservation accessible seats through customer service line or "Live Chat" channel and ticket collection service are available now for passenger who have registered the ID number in THSR stations completely. • Added carbon emission information for ticketed itineraries, showing the carbon footprint emissions of each passenger taking inter-regional transportation, highlighting passengers' awareness of sustainable environmental protection and "green consumption" when taking HSR. • Provide the "Early Bird Discount" registered ticketing service to protect passengers' rights and interests in purchasing the "Early Bird Discount" and maintain the fairness of the discount. • As of December 2023, 26.42 million of tickets were paid via the T Express App, and more than 21.07 million mobile tickets were issued, making it the most commonly used ticketing channel for people to purchase THSR tickets for reserved seats .
Gate (Mobile Payment)	EasyCard Co-branded Credit Card iPass Co-branded Credit Card	<ul style="list-style-type: none"> • Using EasyCard Co-branded Credit Card/iPass Co-branded Credit Card to purchase tickets for non-reserved seats enables passengers to board THSR trains without having to top-up and purchase tickets in advance. As of December 2023, nearly 2.01 million passengers purchased electronic tickets for non-reserved seats using cobranded cards.
other	Customer service center Reservation for group tickets (including ticket counters at THSRC stations, fax, and online booking) THSR Airline / Hotel Combo Ticket Online travel platform	<ul style="list-style-type: none"> • Passengers can continue to easily purchase THSR TourPlus Package through online travel platforms such as Klook, KKday, ezTravel, ibon ticketing system, and Lion Travel. THSR coupon ticket allows tourists to enjoy a variety of products such as Various popular experiences, attraction tickets, transportation connections, sports events, special tours, etc. are available for travelers to freely match according to their personal preferences. In addition, you can enjoy further discounts when purchasing high-speed rail tickets.

Percentage of tickets collected channel in 2023



Easy Access to the Internet

The THSRC provides high-quality Wi-Fi services, completed the installation of network equipment for all 34 full-vehicle trains in 2018, effectively improving the quality of passengers' mobile communications, and installed Wi-Fi wireless network hotspots in public areas of 12 stations along the line, providing Wi-Fi network services for station passengers, and implementing the THSRC's commitment of "high-speed travel with uninterrupted on-board connection"; As the number of users continues to increase, we will increase the bandwidth of Wi-Fi services, and establish remote monitoring of the Wi-Fi system status of all stations and trains, real-time remote automatic troubleshooting of equipment, and improve the stability of the system. In the event of ineffective remanufacturing, personnel can be quickly dispatched for maintenance to achieve orbital intelligent maintenance services.

Convenience, Attentiveness, and Maintaining Relationships

Safety and Quality Service

THSRC regularly reviews the effectiveness of quality management through a rigorous quality management system, various quantitative quality performance indicators, and quality improvement proposals, and promotes quality policies from top to bottom, so that the spirit of quality becomes the High-speed rail culture, to protect each passenger who trusts THSRC.

Quality Management System (QMS)

The THSRC introduced the ISO 9001 quality management system since 2005, and annual quality management review meetings are held since 2007, chaired by the General Manager and attended by various company's various supervisors. Since 2010, THSRC has been verified by external third-party certification companies annually in accordance with the ISO 9001 international standard for quality management system certification, certification covers the "high-speed rail operation, maintenance and passenger service" the overall core business, as of 2023 have been successfully passed.

External Quality Inspection Items

Quality Audit and Supervision Unit	Items	2021	2022	2023
Third-party Certification Company	Certification of ISO 9001	ISO 9001 Regular audit and verification	ISO 9001 Three-year renewal verification	ISO 9001 Conduct regular checks and verifications
Railway Bureau, MOTC	Annual regular operational inspection and temporary inspection	one regular inspection one temporary inspection	one regular inspection zero temporary inspection	one regular inspection two temporary inspection

In order to thoroughly implement quality management, the THSRC regularly checks the latest status of internal operating facilities, equipment and related systems, software and hardware, and ensures that the THSR's quality management system keeps pace with the times through strict control and inspection of internal operating quality, and continuously strengthens the operation and maintenance quality.

Examination of Internal Configuration

Items	Content
Main Categories	Core, trackside equipment, track, closed-circuit television, facility, station, maintenance depot, and depot equipment
Total Monitored Items	33,965
Percentage of Configuration Monitored Items	80.36%
Verification Method / Frequency	Internal verification by the Quality Assurance Office/once every quarter

Quality Management Performance Review

THSRC has established various internal performance indicators for quantification of quality, and reviewed and improved those tasks by following up on the results quarterly, so as to provide customers with high-quality travel services in line with four major aspects of "safety", "reliability", "efficiency", and "customer satisfaction". The number of serious injuries and deaths caused by traffic accidents on the THSRC in 2023 is 0; while the number of minor injuries to passengers is 2, which is 1 fewer than that in 2022. The passenger injury rate (minor injuries) of the "safety" performance indicator for the current year is 0.027 per million trips, which meets the set goals/estimates, which demonstrates that we focus on continuing to improve quality management and provide passengers with safe and high-quality travel services.

Quality Performance Indicators

Target	Items	Formula	2021		2022		2023	
			Target / Estimated Value	Achieved value	Target / Estimated Value	Achieved value	Target / Estimated Value	Achieved value
Safety	Passenger Injury Rate (severe injury and death)	Passenger injury (severe injury and death) per million trips	0	0	0	0	0	0
	Passenger Injury Rate (Minor injury)	Passenger injury (minor injury) per million trips	<0.06	0.14	<0.06	0.055	<0.06	0.027
Reliability	5 minutes punctuality rate (excluding natural disasters)	Number of train runs with delays within five minutes of scheduled time / Total number of train services	> 99.6%	99.77%	> 99.6%	99.64%	> 99.6%	99.66%
Efficiency	Customer comments & suggestions achievement rate	Number of cases replied within 7 working days / Total number of cases	≥ 99.0%	100%	≥ 99.0%	100%	≥ 99.0%	100%
Customer satisfaction	Overall service satisfaction	Number of respondents giving 5 points and 4 points in the customer satisfaction / Total number of respondents	≥ 95%	Affected by the epidemic, the satisfaction on survey was cancelled	≥ 95%	94%	≥ 96%	93% ^(Note)

Note: According to statistical theory, there is no significant difference between the 2023 target and the 2023 outcome at the 95% confidence level, which means that high-speed rail continues to perform very well. In the future, we will continue to refine and improve the quality of our software and hardware

Since 2011, THSRC has launched an employee suggestion improvement system and introduced quality control circle activities every year, encouraging colleagues to use innovative thinking and technology as the basis for developing practical suggestions to optimize quality control and operational performance, continuously improve various problems, and effectively reduce operation and maintenance costs. Since the implementation of the proposed improvement system in 2011, the savings have exceeded NT\$ 80 million. Since 2009, the QCC Quality Control Circle has been promoted, which has saved the company more than NT\$270 million and 47,591 man-hours by 2023, greatly improving production efficiency, driving the company's common investment, improving the quality, safety and efficiency of travel, and further improving Taiwan's high-speed rail travel services; and showing the positive image of THSRC, which attaches importance to safety and quality. In 2023, the QCC of "Bao-Bi Circle" and "O-Ya Circle" have both been awarded the TCIA (Taiwan Continuous Improvement Awards) highest-level Zhishan Group Silver Tower Award which represent the effort of THSRC on quality improvement has been highly recognized by public.



Quality Month Closing Event Chairman Chiang, Yao-Chung personally presented the flag to the members of the "Bogie Circle"

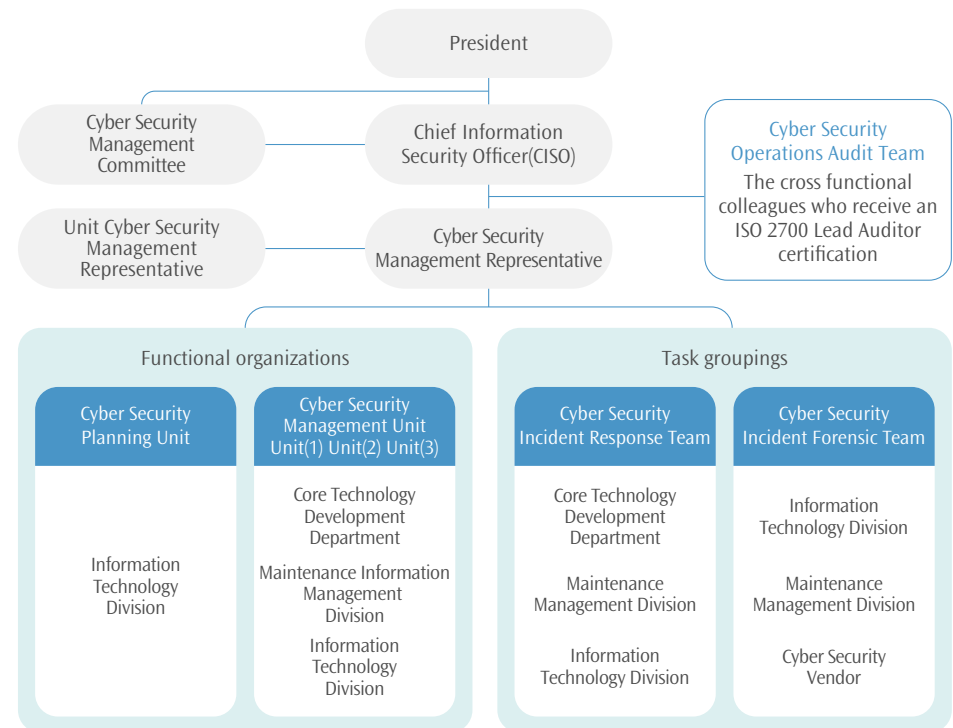


The "Bogie Circle" was awarded the Silver Tower Award in the Zhishan Group of the Taiwan Continuous Improvement Competition

Information Security Management

Affected by geopolitical turmoil and volatile digital crimes in recent years, THSRC has actively implemented information security, established the "Information Security Management Committee" in 2017, and appointed information security officers from the company's interdepartmental office to hold information security management review meetings every six months and convene information security officer meetings every quarter. Review the development direction, strategy and related implementation results of information security, so that the information security management system continues to operate steadily. A total of two information security management review meetings and four information security representative meetings were held in 2023. The information security governance report and results have been recorded in the report of the 2nd Board of Directors of the tenth session in 2023. For more information about the policies and management plans related to information security, please refer to [THSRC Enterprise Website](#).

THSRC Information Security Management Framework



Digital and diverse services has fostered the importance of privacy and information security issues. In order to implement the protection of personal privacy and information security, THSRC not only collects, process, or utilize personal information in compliance with laws and regulations, but has also formulated the "Personal Information Protection Policy" and "Rights and Interests Regarding Customer Information Protection" , and reviews the personal information protection mechanism through regular meetings. Every year, we regularly hold information security and personal information cognitive training for all employees, for a total of 3 hours, to strengthen the information security awareness of each colleague; as of December 31th, 2023, the education and training completion rate reached 100% (excluding newcomers and long-term injury and sick employees), and for the personal information representatives of each unit, we scheduled the professional courses of "BSI 10012 Personal Information Management System Training", and a total of 20 colleagues completed the training in 2023.

In 2023, THSRC received no customer complaints regarding infringement of customer privacy or loss of customer information. In the future, we will continue to supervise employees and service providers to implement information security protection through external audit and internal control mechanisms. In October 2023, all of the THSRC core information technology systems passed ISO 27001 certification and continued to maintain the validity of their licenses, continuously improving in the field of information technology security, and completing the expansion of introduction and certification in 2023. THSRC in accordance with the "The Plan Of Security Measures For The Personal Information File" procedure, personal information security maintenance measures implementation situation is detailed as follows:

Implementation of personal information Security Maintenance Measures

Safety Maintenance Measures for Personal Information Protection Management	Personal Information Management Measures and Implementation Results in 2023
Establish a management organization and allocate considerable resources	Segment representatives formed the "Personal Information Protection Implementation Group." As of 2023, there were 19 personal information representatives and a personal information representative meeting is held every quarter, and a total of four meetings were held in 2023.
Risk assessment and management mechanism for personal information	A three-level management model is adopted as per the security level of personal information files, and risk identification and assessment of personal information files were conducted every year, and personal information files inventory audits were performed twice every year, to maintain the correctness of the "Personal Information File Inventory"
Information security management and accident prevention, notification, and response mechanisms	Information is divided into three types: written forms, electronic files, and system files, and relevant regulations on personal information security incident response, a complete notification mechanism, and a review and improvement policy have been formulated. As of 2023, no personal information security incident occurred.
Awareness promotion, education and training	One hour of education and training for new employees and one hour of annual training for all employees.
Equipment safety management	Terminal equipment (including personal computers, notebook computers, and mobile devices) and various types of servers are all handled in accordance with THSRC's relevant information security management regulations.
Overall continuous improvement of personal information security maintenance	The annual audit results are regularly reviewed at the personal information representative meeting and reported to the review meeting of the Information Security Management Committee.

THSRC continue to strengthen security operations in 2023, such as the use of the Virtual Private Network (VPN) and the employee remote work emergency measures and security are listed below to improve the high-speed rail information communication security environment:

✕ Availability and Stability

- Ensure employee portal availability: Increase equipment capacity to ensure sufficient employee connections, and adjust the system to a high-availability architecture.
- Increase network bandwidth: Increase network bandwidth and circuit redundancy to increase the number of employee connections with improve network connection stability.
- Cooperate with the national information and communication security operation: restrict the use of products that threatens the national information and communication security, inventory the company's internal information and communications equipment, conduct replacement operations; while we cannot require suppliers to replace the restricted Chinese branded equipment immediately, we have reached an agreement for suppliers to replace them at the end of the products' lives, and strengthen the management of information security.

✕ Security

- Strengthen the security authentication of the portal website system: Two-factor authentication is adopted for employees who log in to the Company's intranet from the external network. The employee account number, password and One Time Password (OTP) are required for authentication, and the time limit of OTP is shortened while the length of OTP is increased.
- Improve VPN to high-availability architecture : In case of any abnormality, the VPN device will complete the switch within one second. After the switch is completed, the password and One Time Password need to be re-authenticated.

✕ Monitoring Mechanism

- Strengthen VPN connection monitoring: VPN uses two-factor authentication to monitor the connection source IP. In case of any abnormality such as the connection source IP is detected from a place outside Taiwan and intensively requests for login in a short period of time, the firewall will control and block the connection IP.
- Integrate information security monitoring mechanism: integrates the main systems, endpoints, networks, and security and reconnaissance threat monitoring information of information technology (IT) and operation technology (OT), analyzes the status of threats in real time, introduces information security solutions such as abnormal alarms and defense disposal, and monitors and reports full-time through the information center computer room.
- Track the usage of highly privileged accounts and endpoint devices, detect abnormal operations and potentially malicious activities, improve threat sensitivity, detect and contain the spread of attacks early, ensure system security, and reduce the damage caused by insider threats.

In response to the "Accelerating Digital Optimization and Moving Towards Digital Transformation" aspect of the six strategic directions of THSRC in the medium and long term, while accelerating digital innovation and transformation, we have formulated four development strategies for high-speed rail information technology, including management information digital optimization, maintenance management digital optimization, operation management digital optimization, and marketing digital optimization. The projects and goals we planned to introduce are as follows:

◆ Management Information Digital Optimization

Build off-site backup mechanisms to improve service availability and introduce IT asset and configuration management platforms to ensure consistency of service data, as a way of increasing automation and saving manpower, while building and promoting a low-code integration platform and automation equipment to improve efficiency, expand production capacity and reduce labor costs.

◆ Maintenance management digital optimization

Establish high-speed railway geographic map to quickly obtain the corresponding mileage assets and maintenance records information, and continue to collect track, tramway and power system detection and maintenance data, and analyze the data to establish the basis for predictive maintenance operations and provide a coordinating mechanism for track maintenance area scheduling to further improve maintenance efficiency.

◆ Digital Enhancement of Operations Management

Establish a new generation ticket booking service system to meet market demand, import cloud computing into station equipment, and improve service timeliness.

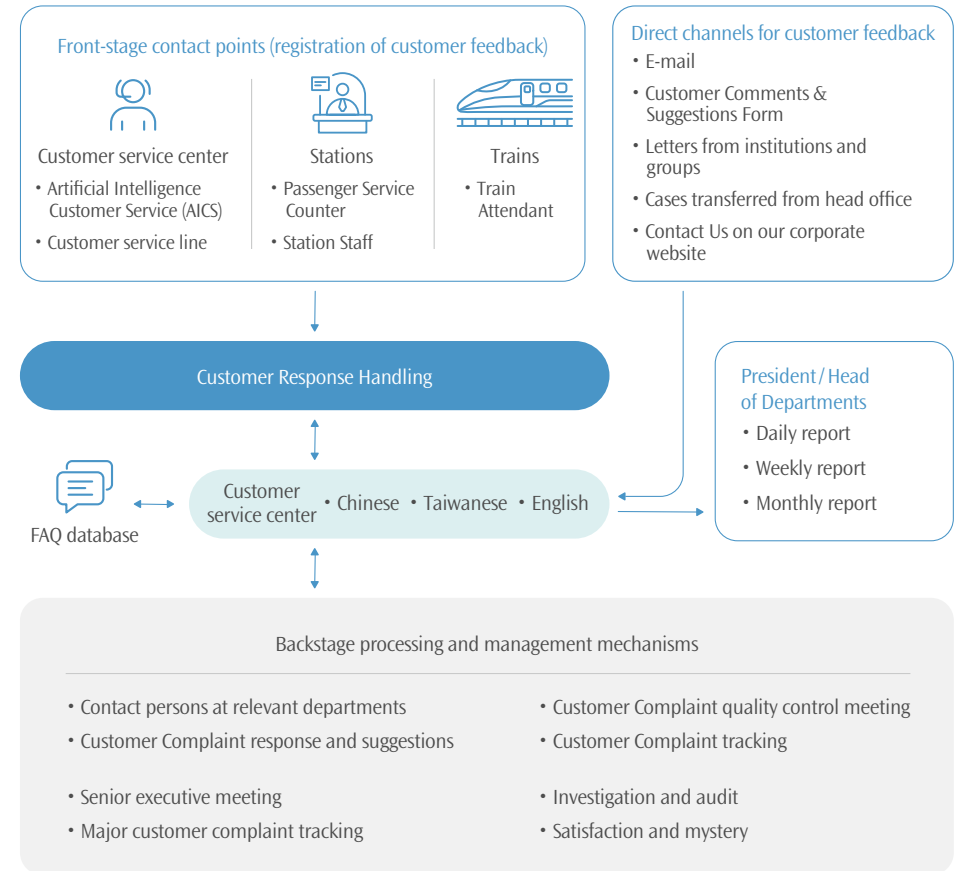
◆ Digital Marketing Optimization

Enhance the company's revenue through accurate marketing and the establishment of a new business model platform, while developing the T Express sales model to provide diversified ticketing services and enhance market competitiveness.

Customer Relationship Connections

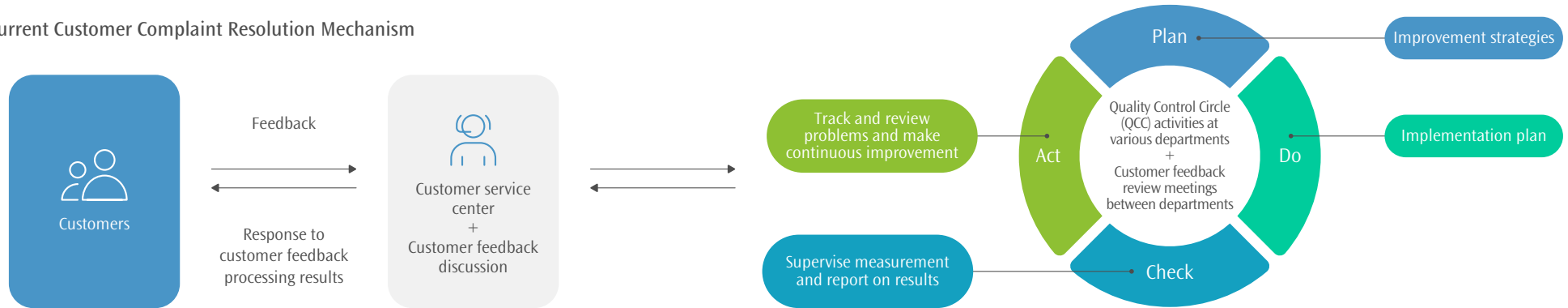
Continuously innovating service content and types to create thoughtful services that exceed customer expectations is the driving force for THSRC's continuous improvement. We have prepared a dedicated management department to open up multiple communication channels to respond to passengers' needs in real time, deepen customer relationships, provide online consultation by Artificial Intelligent Customer Service, corporate website e-mail message and other functions, and configure the customer service line service with Mandarin/ Taiwanese / English responses. The current Feedback Collection Channels and Customer Service Operations System are detailed in the figure below.

Current Feedback Collection Channels and Customer Service Operations System



THSRC has set up a Current Customer Complaint Resolution Mechanism to not only provide immediate consolation and attention but also submit customer feedback to the quality management authority and responsible unit of each department and the cross-departmental customer opinion review meeting, so as to truly incorporate customer feedback into management and implement improvements. In 2023, the inbound passenger service center and the use of Artificial Intelligent Customer Service inquiries were about 750,000 cases, and the main consultation items were about ticketing, lost items and high-speed rail promotions. Part of that, Artificial Intelligent Customer Services received 250,000 (accounted for 34%) inquiries or applies for timetables, ticketing problems, guide for travel, properties lost and found services.

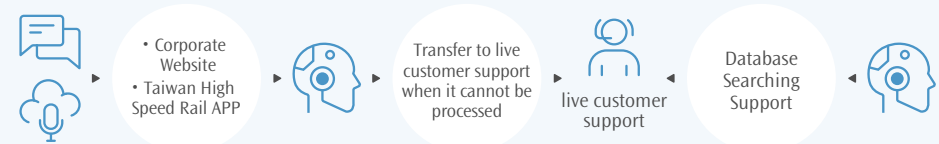
Current Customer Complaint Resolution Mechanism



Highlight story: THSRC's Artificial Intelligent Customer Service

THSRC's Artificial Intelligence Customer Service System was conceived in 2019, leading to the formation of a dedicated professional team focused on its implementation. The goal was to enhance service efficiency and quality while providing passengers with an innovative technological experience. The system was officially launched at the end of 2020, incorporating technologies such as data analysis and sorting, natural language processing, and machine learning. These advancements enable the system to offer passengers 24/7 access to frequently asked questions and personalized inquiry services.

The Artificial Intelligence Customer Service System offers customers the opportunity to experience advanced technological services in their daily lives. This includes online interactive consultations with digital assistants available around the clock, as well as services such as online lost and found reporting, and travel guides, ensuring customers receive high-quality service with exceptional satisfaction. If a customer's inquiry falls outside the scope of what the AI system can handle, it seamlessly transitions into a knowledge support role, assisting live text-based customer service representatives. This approach shortens the waiting time for passengers, minimizes the need for them to repeat their questions, and provides a more convenient and considerate service experience. In 2023, approximately 250,000 people used the Artificial Intelligence Customer Service, reflecting a 21% increase compared to 2022.



To align with THSRC's 4T enterprise development vision, we have assigned dedicated personnel to continuously review and enhance the content of the Artificial Intelligence Customer Service system. This effort aims to enrich the system's database and develop more personalized self-service functions, thereby improving the accuracy of the system's responses to customer inquiries(Note). In 2023, we launched the Timetable and Fare Search function, enabling passengers to stay informed about THSRC's ticket pre-sale dates, plan their journeys in advance, reduce the risk of missing ticket purchases, and enjoy a smoother travel experience. Additionally, we introduced a small card featuring a QR code and instructions for online lost item reporting. This allows passengers who accidentally lose their belongings on THSRC to file a report online and monitor the progress through the system. Looking ahead, we plan to gradually establish the Artificial Intelligence Customer Service System as the primary communication channel and develop more digital services to enhance service capacity, driving a stable and innovative digital transformation.

Note: After the Artificial Intelligence Customer Service understands a traveler's questions using natural language processing, it searches the stored information for answers or initiates personalized service processes. The "accuracy" is defined as the cumulative percentage of correctly addressed responses out of the total number of inquiries.



Customers Affirmation

Customers' affirmation and feedback are important indicators for THSRC to review its own quality management performance. In 2023, in line with the government's epidemic prevention downgrade, THSRC has adjusted unwound the relevant epidemic prevention policies. In 2023, the overall service satisfaction is 93% through the online survey, and the customers of the THSRC have paid 96% to 97% importance of the four major service orientations on train schedule planning/ticket service/station facilities and services/train facilities and services while 91% to 96% of customers have given high-satisfaction ratings. In addition to implementing operating procedures and specifications, THSRC personnel also often receive recognition and praise from passengers for their attentive and sincere services. For example, in March 2023, the trains conductor has received a thanks letter from one elderly with mild Alzheimer's disease family member for his assistance on finding, comforting, and also escorted the elderly to transfer smoothly. Taiwan is now an aged society, THSRC employees realize that in addition to providing professional services, they also uphold an extra layer of meticulous care and consideration so that every passenger can reach their destination safely.

04


Enhancing Local Connection Taiwan

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Local Supply



04 Enhancing Local Connection

Taiwan

Subchapter title	Major topics	Strategy	2023 Goals and Results	Targets (next three years)
 <p>Partner Relationship Management and Local Supply</p>	Sustainable Supply Chain Management	<ul style="list-style-type: none"> Establish supplier management mechanism (such as signing commitment letter, supplier evaluation, etc.), strengthen supplier partnerships, and jointly promote a sustainable value chain. Strengthen partnerships with government agencies and local enterprises, build local supply chains, and promote the overall economic resilience of the industrial chain. 	<ul style="list-style-type: none"> In Q3 2023, THSRC has introduced sustainable supply chain management, and optimize the sustainable supply chain policy, code of conduct and management mechanism. THSRC has set up a self-assessment and complaint channel for suppliers, and corresponding person in charge will provide assistance if the manufacturer has any doubts. In 2023, a total of 1,185 procurement announcement cases were filed by Suppliers in compliance with the THSRC's anti-corruption regulations; A total of 284 CSR commitment letter and 150 commitment self-assessment forms were collected. Evaluate performance based on the amount of local procurement, alternative sourcing, and the development of applicable equipment and systems. In 2023, THSRC has visited local suppliers 230 times and completed 114 alternative material development projects. From 2011 to 2023, there were a total of 135 alternative developers, saving about 3.65 billion. Track the yield of THSRC tourism products by analyzing tourist visits, business volume, traffic volume, and sales figures. 	<ul style="list-style-type: none"> Establish a complete supply chain management structure, risk assessment mechanism and supplier classification system: In 2024, we will establish a detailed risk assessment scope and implement risk assessment operations. In 2025, we will revise and expand the risk assessment mechanism, complete the on-site audit mechanism and strengthen supply chain management. In 2026, we will internalize the risk assessment mechanism and on-site audit mechanism to assist in communicating with suppliers with lagging performance and putting forward suggestions for future improvements.

Glide through Taiwan and Stretch Global Wide

Enjoy a Local Travel

In line with the recovery of domestic tourism industry after the pandemic, the "Be There, NOW," a brand promotion activities which encourage tourist to take the THSR, regain the touch of real contact, launched in June 2023 including "Cool Summer Fun in Taipei and Kaohsiung," "The Refreshing Summer Delight," "Discovered the Sun Moon Lake," and other projects, and continue to cooperate with the hotel and tourism industry to launch many value-added tourism projects, including "THSRC with Free Hotel," "THSRC with Free Admission Tickets," "THSRC with Free Car Rental." In collaboration with the Tourism Administration, Ministry of Transportation And Communications, the Ministry of Transport has launched the "Overseas Visitors Ride High-Speed Rail in Taiwan: Buy One, Get One Free!" to promote and activate the tourism benefits of cities along the central and southern high-speed rail routes. Therefore, THSRC has recorded an annual tourist number of 4.025 million in 2023. Compared to 2022, the growth rate is as high as 38%.

In addition, THSRC has led tourists to respond to the sustainable policy through sustainable tourism projects, stimulating and driving tourism business opportunities on the island. In January 2023, the THSRC "High-Speed Rail and Hotel Combo Ticket" launched the "Environmental Sustainability and Carbon Reduction Promotion" project, encouraging passengers to take THSR, a low-carbon and environmentally friendly green transportation, to reduce the use of disposable amenities for accommodation, and to provide discounts for additional THSR's tickets, so as to contribute to the earth.

In future, THSRC will continue to launch diverse projects to meet the tourism needs, and work together with the tourism industry to meet the diverse needs of tourists, and hope that the number of tourists will reach new achievements in 2024.



THSRC "Be There, NOW" publicity photo



THSRC's "Environmental Sustainability and Carbon Reduction Promotion" publicity photo

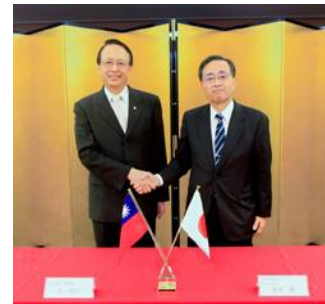
THSRC will participate in the Taipei International Travel Expo in 2023 to promote the "Journey with THSR, Discover Taiwan" series of travel itineraries, using colorful flower imagery to continue the theme of "Flower viewing" on the themed train, and the small animals of Kanahra will be transformed into various Q versions of THSR staffs to accompany the public to take photos and check in. In response to the company's corporate philosophy of "sustainable transportation," the materials used in this booth adopt a universal design that can be reused in different exhibitions, so that the panels can be reused in the next exhibition after dismantling, so as to achieve the purpose of recycling, and this time it also won the "Best Pavilion Award" by the organizer again.



THSRC won the "Best Pavilion Award" at the 2023 Taipei International Travel Expo

Industry Exchanges

THSRC actively responds to international industry trends through technical visits, international observations and local Industry-academia cooperation, and continues to improve rail industry technology. In 2023, THSRC participated in 22 public associations as a member (please refer to Table 1 in the Appendix), maintained close cooperation relationship with domestic and foreign transportation rail industries, and jointly promoted the development of Taiwan's rail industry. In November of the same year, it signed a memorandum of cooperation with Central Japan Railway Company (JR Tokai) to continue to deepen the professional knowledge and capabilities of personnel in the transportation control center, station service/train service, and vehicles through technical cooperation and experience exchange, so as to bring better and innovative travel services to passengers.



THSRC and JR Tokai signed a memorandum of cooperation

Since joining the International Union of Railways (UIC) in 2009, THSRC has been co-organizing seminars to exchange experience with railway systems or operators around the world, and in 2014, it joined the International High-Speed Association as a member Rail Association (IHRA), which actively responds to the events and initiatives organized by the International League and associations. In October 2023, the Chairman of the Board of Directors led a delegation to Japan to participate in the annual forum of the International High Speed Rail Association, where more than 180 high-speed rail operators, experts, scholars and government representatives from 13 countries gathered together to share operational experience and exchange expertise. In view of the deep impression of THSR recovery after the epidemic, the president of IHRA specially invited THSRC to co-organize the annual forum in Taiwan in 2024 to share THSRC sustainability with the global railway transportation industry, to deepen cooperation and exchanges with the international railway industry, and enhances the international visibility and influence of Taiwan's transportation strength.

Local Industry-Academia Cooperation

THSRC has actively signed memorandums of industry-academia cooperation to deepen technology and strengthen the technical strength of the local rail industry through project cooperation and seminars. Among them, the joint development Power SCADA smart simulation training system with the National Taipei University of Technology is the first in the domestic rail industry, and it has won the 2023 ITS Industry Innovation Award of the Intelligent Transportation Society of Taiwan. In addition, in 2015, it jointly established a railway equipment laboratory with Kaohsiung University of Science and Technology (TAF certification qualification in 2021), and has developed 35 systems and 4 proprietary instruments so far.

THSRC has cooperated with a number of colleges and universities to accelerate the localization of equipment parts, at the same time, a number of production measures will be promoted to create opportunities for young students to explore the railway transportation industry.

In 2023, THSRC cooperated with 15 colleges and universities to promote internship programs, providing 114 students with internship opportunities in maintenance and transportation jobs.



THSRC won the ITS Industry Innovation Award

Partner Relationship Management and Local Supply

Supply Chain Management

To enhance the overall value chain sustainability performance, THSRC has formulated a supply chain management structure with reference to international standards. In 2023, we optimized the "supply chain policy" and "code of conduct", and announced to all suppliers in January 2024. We expect to strengthen domestic suppliers' sustainability through management mechanism.

To align with global trends, we incorporated human rights and labor practice, safety and health, and environmental protection into the "supply chain policy" and "code of conduct", especially improving suppliers' working conditions, gender equality, grievance mechanisms and labor practice issues.. In the future, we will strive to build a more sustainable supply chain via communicating and educating with suppliers.

In 2023, THSRC conducted 8 on-site audits and the major audit agenda include: ethics, human rights and labor practice, safety and health, and environmental protection. No suppliers have major deficiencies. THSRC has taken further steps to promote the growth of localize rail suppliers through increasing procurement of domestic suppliers, and collaboration with government research projects with universities and colleges.

Supplier Engagement

THSRC continues to communicate and negotiate with suppliers through diversified channels, strengthen partnerships with suppliers, and jointly promote a sustainable value chain. In 2023, THSRC build relationships with 742 suppliers, 512 of whom provide materials, mainly equipment parts and vehicle products, and 230 of whom provide labor. To achieve our sustainability goals, we have developed "Procurement Regulations". Sustainability is comprehensively evaluated through the management manual and precautions taken before signing off on instructions. Any supplier who violates these regulations and refuses to rectify the situation within the specified period will have face termination of cooperation. At present, 100% of the newly contracted suppliers comply with the procurement operation method. In 2023, there was no termination of cooperation due to supplier's poor ESG performance.

Additionally, since 2019, bidders have been required to commit to cooperating with THSRC's CSR regulations and sign a CSR commitment. Regular project group meetings are held to review the self-assessment forms of contractors. In 2023, we collected a total of 284 CSR commitments and 150 CSR commitment supplier self-assessment forms. Furthermore, a total of 1,185 procurement announcement cases complied with THSRC's anti-corruption regulations. For the Company's supplier policy specifications and requirements, please refer to our [Supplier management](#).

Localized Supply Chain

Local Development

In its efforts to promote the growth of local rail technologies and capabilities, THSRC has made multiple visits to suppliers seeking alternative regional materials. In 2023, we successfully completed 114 alternative sourcing cases, after visiting a total of 230 local suppliers. Through joint work with 135 alternative materials-developing suppliers from 2011 to 2023, we were able to save approximately NT\$3.6 billion. In addition to expanding our recruitment of manufacturers, THSRC has also broadened our cooperation with industry, government, academia, and research to jointly developed high-speed railway equipment and system innovation technology. Through these efforts, we have contributed to the localization of railway transportation and achieved our goal of "Localization of Domestic Vehicles." Relevant cooperation projects include:

- ◆ Since September 2018, we have collaborated with China Steel Corporation on the "Overhead Catenary System (OCS) Maintenance Vehicle Localization" project. Our efforts included integrating equipment component specifications, and pooling supplier resources. As a result of equipment localization, we have effectively reduced maintenance and inventory costs while improving maintenance quality. Reducing maintenance and inventory costs and improving maintenance quality after stable localization of equipment, and improving localization development capabilities and local equipment/material supply ratio. By December 2023, we had delivered twelve OCS maintenance vehicles in order to achieve the goal of phasing out all the old OCS maintenance vehicles.
- ◆ In 2021, THSRC R&D team successfully developed the "Turnout Control Cabinet", and has now put into use equipment in 17 locations at Changhua Station, Yunlin Station and Chiayi Station, continuously optimizing circuit design and improving equipment efficiency, and gradually replacing the original German-made Turnout Switch Control chassis. By optimizing the circuit configuration and box design, it not only effectively prolongs the service life of the equipment, but also improves the reliability of the system. In the future, it will be replaced in batches in five years, and it is expected that the replacement of the existing chassis of the whole line will be completed in 2026. The "Turnout Control Cabinet" is 100% independently developed. It is the first example in the world of introducing programmable logic control technology into a turnout control chassis, which greatly reduces the probability of relay damage and improves maintenance efficiency. In addition, in order to properly protect the results of independent research and development, the new model patent has been obtained in June 2023 and approved by the Intellectual Property Office of Invention Patents in May 2024.
- ◆ In 2021, THSRC independently developed a new generation of local "turnout monitoring system", through the digital transformation project, THSRC redesigned the intelligent turnout monitoring system, in addition to the original monitoring function, and added big data analysis and prediction reports, early warnings, display real-time, and historical analysis reports. Before a turnout fails, maintenance and adjustment can be performed in advance to prevent it before it happens, and can greatly improve system reliability and rapid repair. In April 2024, the new patent for the turnout monitoring system has been approved by the Intellectual Property Office.

THSRC has launched a new 5-year medium and long-term plan from 2023 to create a "Safety ride" environment for passengers, encourage people continuously support public transportation after the pandemic, and work with domestic manufacturers to develop new passenger information display systems, and replace the original LED screen form with a 4K high-quality full-color LCD screen, continue to increase the localization of maintenance materials.



Highlight story: Application of intelligent drone for HSR bridge inspection maintenance system in THSRC

About 70% of the tracks of THSRC railway line are located on the bridges and viaducts. In order to improve the efficiency and safety of inspections, and ensure the safety of inspectors, THSRC and ITRI have cooperated to develop an "intelligent drone for HSR bridge inspection maintenance system" to assist personnel in completing inspections in difficult areas. Twenty-seven tests has been carried out in 2023 and are expected to be handed over to the user in October 2024.

It took about 5 months to complete with traditional manual inspection for the whole line, but after the assistance from the intelligent drone, it was reduced to 3 months, which was 40% incrementation. THSRC drone maintenance team currently has 4 drones, 9 people have obtained the licenses and are organized into three teams to carry out the work. As an auxiliary function, drones not only increase inspection efficiency, but also have a wider range of inspection than traditional, especially in places that people are difficult to reach. In emergency case, it can be used as an on-site inspection tool to provide real-time scene as to keep multiple groups (emergency response center, operation control center, on-site management and operation personnel) posted, and to help the maintenance team to grasp the current situation, accelerate judgment, decision-making, and follow-up maintenance in time and accuracy.

In addition, through the Three-dimensional information of the bridge and digital management, a large number of photos are quickly screened and analyzed, and compared with historical photos in detail. All abnormal detection (such as power poles, pot bearings, piles, and steel bridges) are automatically annotated and inspection reports are generated, so as to provide maintenance personnel with early detection of potential abnormalities and strengthen the control of transportation safety in advance.

New intelligent drone and real-time inspection visual analysis management platform



Sustainable Procurement

In addition to actively localizing technology and equipment, THSRC has implemented a localized procurement strategy on the premise of ensuring the safety and quality of equipment. This strategy not only decreases reliance on foreign suppliers, but also reduces equipment replacement costs and lead times. Local suppliers of rail transportation industry can take this opportunity to obtain certification of the international railway industry standard quality system, greatly enhancing the image and popularity of the domestic rail transportation industry.

In 2023, the total amount of material purchases conducted by THSRC was approximately NT\$3.297 billion, where the amount of procurement from local suppliers accounted for 60.17% of the total amount. Meanwhile, the amount of labor service procurement in 2023 exceeded NT\$9.766 billion, of which 98.9% came from local service procurement. In addition, in March 2023, THSRC completed the train procurement of 12 sets of new-generation trains with 124.091 billion yen, but it is not included in the calculation due to its project nature.

Year	2021	2022	2023
Labor services	98.76%	90.94%	98.90%
Materials	85.77%	73.98%	60.17%

In order to achieve sustainable procurement's goal, we have followed the "Green Procurement Declaration for Private Enterprises and Groups" announced by the Environmental Protection Administration of the Executive Yuan, and include the purchase of products and services with environmental protection labels, green label products, carbon footprint label products and carbon reduction labels into the green procurement program, which reaching 380 million in 2023, accounting for 3% of the total procurement amount. The major procurement items include administrative supplies, office supplies, water dispensers, refrigerators, green building materials (such as environmental protection and energy-saving label equipment, products with carbon footprint certification) etc., In addition, THSRC has obtained the carbon label certificate, we will include the expenses of employees traveling on HSR in green procurement and actively promote energy conservation and carbon reduction in every operation link and value chain. THSRC not only mandates suppliers to provide products that comply with green procurement but also integrates the supplier's sustainability-oriented performance into the supplier selection criteria, while continuously verifying whether suppliers adhere to environmental regulations.

Green Procurement amount in recent years (2021-2023)

Year	2021	2022	2023
Administrative Affairs	1,332	3,572	1,898
Cost of employees business travel via THSR	20,909	24,737	26,920
Special Project	1,472	NA	9,209
Total (10,000 NTD)	23,713	28,309	38,027

Local Business

To promote the growth of local industries and capitalize on local business opportunities, THSRC has established high-speed rail markets and local production halls throughout its operations in Taiwan. These facilities support the production of local raw materials and creating local employment opportunities through concrete actions such as low rental fee for local business.

- Taiwan Hakka Creative Souvenired Guaranteed Liability Yun-Lin County Qiong Pu Cooperative Farm were commissioned to operate the product hall at a lower rent in Miaoli and Yunlin stations, and the goods in the pavilion and market are all produced by local small farmers or merchants, which can reduce the relevant management and marketing costs, and sell directly to passengers at an appropriate price.
- There are high-speed rail market counters at all stations, mainly for local business stationing, such as Taoyuan (Rren nougat), Hsinchu (Chunsun pudding cake) and others. We continue to assist local business in creating employment opportunities.



Local Business stationing in THSRC high-speed rail market

Security Management Strategy and Training

THSRC has established "Human Rights Policy" and expanded the scope of application of the policy to its partners, not only emphasizing the diversity of employees' identities, cultures, experiences, and professional skills, but also strictly complying with labor laws and regulations to prevent infringement and violations of human rights. To promote a safety culture that is "people-oriented", THSRC has implemented a "Safety and health policy" and continues to pay attention to contractors' occupational safety and health performance. In January 2020, we introduced "occupational safety and health management system for contractors" which integrated several procedure included "management regulations signing, pre-construction safety and health education, personnel and equipment checking and inspection, construction work management, high-risk operation control, factory evaluation and non-compliance management" into digital management system to reduce the contractor worker operation's risk. In 2023, there were no death and severe injuries case occurred in THSRC's contractors.

THSRC has engaged professional security company to conduct security trainings for our security personnel to ensure the safety of passengers and THSRC personnel. Additionally, we have developed a security management plan that outlines the duties of our security personnel, which include maintaining order at stations and on trains, ensuring passenger safety train operations. In 2023, 100% of security personnel was received the professional security training. To further enhance passenger safety, we have introduced "Train-Elite Security Guard" program by hiring security personnel with military and police-related experience or qualified martial arts licenses since 2020. We also maintain communication with the security company regularly, and hold bi-monthly meetings to ensure compliance with our security management regulations and to promote customer-first service attitude. Please refer to the following for details on security personnel training.

Security Personnel Training Content

- ◆ Training Courses Provided by THSRC
 - Customer service etiquette training
 - Security equipment/system operation and emergency notification training
 - Pre-service training, security service review training, and safety lectures
 - Railway safety regulations (high-speed railway operation specification training) and disaster prevention training
 - Auxiliary skills training for Security response
- ◆ Training Courses Provided by Security Companies
 - Traffic control and command, patrol skills, comprehensive application of boxing skills, and self-defense training
 - Legal training related to personal security and arrest of offenders, to avoid infringement on human rights of passengers or third parties



Comprehensive application of boxing skills and self-defense training



Auxiliary skills training for Security response



Professional Security Training



Professional Security Training

Sustainable Care


Touch



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05 Sustainable Care

Touch

Subchapter Title	Material Topics	Strategies	2023 Goals and Results	Targets (next three years)
 Low-carbon Train Operation and Environmental Sustainability	Climate change mitigation and adaptation	<ul style="list-style-type: none"> Established operation safety and environmental risks relevant units (e.g., Environmental Management Committee) to strengthen the management and supervision mechanism and effectively implement implementation measures Established Greenhouse Gas Inventory Audit List, conduct total inventory and verification, and study and formulate reduction measures and priorities Launched the Task Force on Climate-related Financial Disclosure, TCFD project, identified climate risks, and inventory of the resilience of high-speed rail in response to climate risks Continue to promote the equipment optimization, personnel education and training, to improve energy conservation and carbon reduction 	<ul style="list-style-type: none"> In 2023, we expanded our greenhouse gas inventory from 12 stations to the whole company, and obtained ISO 14064-1 certificates The overall carbon emissions in 2023 were 317,679.09 tons, an increase of 34.94% over last year (2022), but the carbon emissions per person-kilometer were 25.284 grams of CO₂e and 25.51% less than 33.941 grams last year (2022). Through Equipment elimination and optimization and Energy Saving Driving Programme, Electricity consumption in 2023 was reduced by 2.77% compared to the base year (2010). 	<ul style="list-style-type: none"> Develop carbon reduction target and policy by referring to the United Nations IPCC climate change mitigation plan Continue to conduct company-wide greenhouse gas inventory and external verification every year Continue to promote Energy-saving Train Operation plan. "Carbon emissions per person-kilometer" aims to reduce by more than 1.5% per year
	Resource usage and management	<ul style="list-style-type: none"> Establish Resources usage and management policies (including electricity, water and waste disposal), regularly review targets and enhance green action measures (e.g. renewable energy, resources recycling) Established resource usage and management relevant team (e.g. Energy Conservation Project Team) to improve the management mechanism and implementation measures effectiveness Organize environmental training program to strengthen employees and environmental management representatives of each unit familiarity with environmental laws and regulations and environmental protection awareness, and deepen environmental sustainability development concept. Improve environmental management and pass external verification by monitoring, performance evaluation and audit. 	<ul style="list-style-type: none"> Pass the ISO 14001:2015 environmental management system re-examination in 2023 (valid until September 2026). The electricity consumption (kWh) of stations (maintenance depots and stations) decreased by 0.03% in 2023 compared with 2022; The average electricity consumption per passenger was 1.250 kWh, saving 25.92% compared to 1.69 kWh last year (2022). The water consumption of stations (maintenance depots and stations) increased by 9.28% in 2023 compared with 2022; The average water consumption per passenger was 0.0097 kWh, compared with 0.0120 kWh last year (2022), saving 19.01% of water. The recycling rate of natural waste is 29.9%, and there are no oil, fuel, chemical substances, or waste leakage. 	<ul style="list-style-type: none"> Continue to implement the environmental management system, and apply for environmental quality management certifications (such as ISO 14001, 50001, etc.). Continue to implement energy-conservation measures (such as equipment replacement, water conservation and drought control measures) and energy management system monitoring to track resource consumption status. The average electricity consumption per passenger at the station was collaborated with reduced by 0.86% The average water consumption per passenger at the station was reduced by 3.42%. Continue to organize environmental awareness training, improve recycling and promote waste reduction as to achieve the recycling rate to 40%.
	Ecological and Community Impact	<ul style="list-style-type: none"> Established Environmental protection specification and operation standard (including the natural environment and communities), noise and vibration management, strengthen environmental management mechanisms and implementation measures effectiveness. Organize internal and external environmental quality management audits regularly, and continue to improve the management mechanism and implementation measures effectiveness. 	<ul style="list-style-type: none"> In 2023, 30 internal audits were conducted, and follow-up improvement were reported to the Environmental Management Committee regularly; externally, the audit was conducted by the environmental protection unit. In 2023, there was no penalty imposed due to the pollution of the environment.16 complaints related to noise and vibration management has been received, and communication channels will be provided for further communication purpose with the communities. 1 case of noise standard violation cases notified by the local Environmental Protection Bureau for improvement, and no penalty was occurred. Maintain the annual 1.143 million sponsorship for the Pheasant-Tailed Jacana Ecological Education Park, with a cumulative amount of more than 69.89 million. 	<ul style="list-style-type: none"> Maintaining low ecological, and social impact through conducting environmental quality management, sound and vibration management and other related mechanism. Continue to sponsor the Pheasant-Tailed Jacana Ecological Education Park

Subchapter Title	Material Topics	Strategies	2023 Goals and Results	Targets (next three years)
 Nurturing Talent and Value Cultivation	Talent retention and development	<ul style="list-style-type: none"> Established relevant manpower management and training regulation and procedures (such as recruitment, cultivation, career planning and so on) to improve talent competencies development. Review talent retention and result from the development target and strategies periodically to improve management system. 	<ul style="list-style-type: none"> 2023 Annual training plan (including Training on employees' core competencies, management competencies and professional competencies), has completed with 74.6 hours of the average number of training hours per capita, an increase of 14.1 hours compared with 2022, mainly due to the resumption of normal training after the COVID-19 pandemic and the promotion of various talent development training projects. 	<ul style="list-style-type: none"> Enhance the competitiveness of employees through systematic and strategic education and training and succession planning Professional experience inheritance program from senior employees Routine review and adjust for the development plan for key functions, the high-potential management talent pool, and the professional experience inheritance program from senior employees Employees aging duties and manpower planning adjustment plan (Self-trained and certified positions).
 Protection of Rights and Considerate Care	Employee care and labor security	<ul style="list-style-type: none"> Established employee care and labor security related committees (such as the Occupational Safety and Health Committee) to strengthen the management and supervision mechanism and effectiveness of the implementation measures Formulate policies and regulation for employee care and labor security (including workplace safety, physical and mental health, human rights protection, etc.), and improve management mechanisms and implementation measures (including various training, two-way communication channels, and preventive and remedial measures) Regularly review the results of employee care and labor security goals and strategies, and continuously improve. 	<ul style="list-style-type: none"> A total of 607 employees participated in the employee mental health lectures and training courses, and a total of 71 employee care sessions were organized. A total of 4,763 employees participated in the sexual harassment prevention courses and online training for all staff. There were 7 occupational accidents in the workplace, with the frequency-severity indicator of 0.03, and 13 traffic accidents outside of the workplace, with the frequency-severity indicator of 0.11, and no occupational disease occurred. 	<ul style="list-style-type: none"> Annual Review Occupational Health and Safety programs implementation result and re-evaluate next year management plan and target. Organized and conduct Health and Safety monitoring and verification routinely, continuously improve and promote Occupational Health and Safety activities. Continue to provide training, advocacy, reminder and other method to build colleagues the correct occupational safety and health habits.

Low-Carbon Train Operation and Environmental Sustainability

Environmental Sustainability Policy and Management

In order to implement environmental protection measures, the Company has set up an Environmental Management Committee with THSRC's Chairman as the convener, and composed of the executives of each department or division, to supervise the development and implementation of internal environmental policies and targets. In 2023, the Environmental Management Committee conducted 30 audits on environmental quality management to assess the actual performance of each depot and HSR station in promoting environmental sustainability. Additionally, the Environmental Management Committee held an "environmental management working conference" every quarter to monitor the progress and performance of each department in promoting environmental projects, ensuring the smooth operation of our environmental management systems. We also promote measures to mitigate environmental impact in compliance with environmental regulations. In 2020, THSRC became the first company in the rail service industry in Taiwan to pass the ISO 14001 environmental management system certification, demonstrating our commitment to environmental protection. In 2023, we passed the ISO 14001 environmental management system re-examination to ensure the effectiveness of our environmental sustainability management implementation, the validity period is from September 24, 2023 to September 24, 2026 .

In response to the global and domestic Net Zero and carbon reduction trend, we have completed the company-wide greenhouse gas emissions (Scope 1, Scope 2 and Scope 3) inventory, which covering 12 stations, 5 maintenance depots, the headquarters office, Taoyuan Operation Management Center and the main line (trains and roadside equipment) and obtained the ISO14064-1:2018 external verification certificate in September 2023. THSRC is committed to environment protection, raising employees and supplier's environmental awareness, introducing an environmental management system, reducing greenhouse gas emissions and waste, and increasing environmental protection expenditure year by year, with a total investment of NT\$103.618 million in 2023, 10.52% increment compared to 2022. We will continue to promote environmental sustainability, including continuous promotion of greenhouse gas inventory and reduction, water conservation and waste recycling and reduction management measures in the future.

Environmental Protection Expenditure in 2023

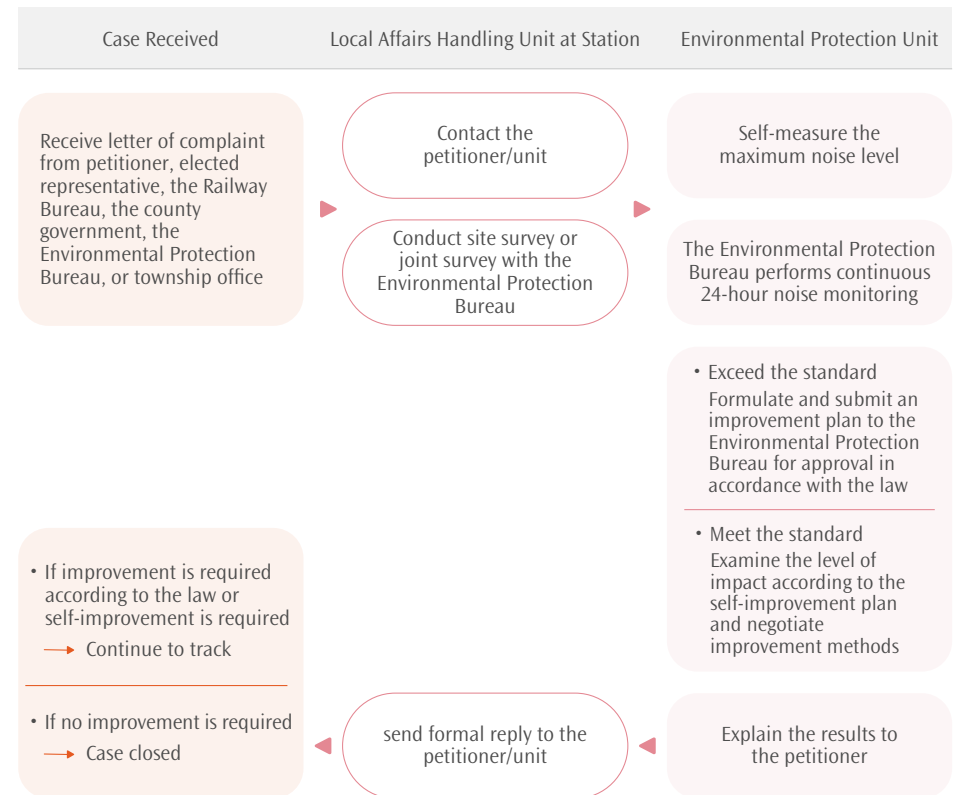
Unit: NT\$ thousands

Environmental Protection Measure	2021	2022	2023
Environmental impact assessment and monitoring (including Miaoli Station, Changhua Station, and Yunlin Station)	1,880	2,004	1,499
Environmental protection research (including Pheasant-Tailed Jacana Preservation, greenhouse gas inventory check, and noise research and improvement plan)	4,529	5,132	7,932
Environmental pollution prevention (wastewater and waste treatment operation and maintenance at stations and maintenance depots)	87,836	86,615	94,187
Total	94,245	93,751	103,618
Environmental expenditure comparison with previous year (YOY, %)	33.3%	-0.5%	10.52%

Noise and Vibration Management

THSRC is committed to environmental protection and working to comply with relevant laws and regulations through its environmental management systems. THSRC has formulated the "High Speed Rail Noise Improvement Plan" and the "Noise & Vibration Petition Treatment for HSR During Operation," and established the "High Speed Rail Noise Case Handling Process" to implement the most complete noise handling and prevention procedures. Executives at each station participate in activities and communicate with local opinion leaders and residents to achieve a win-win situation through communication. In 2023, THSRC deal with 16 high-speed railway noise issues along the line, and did not receive notification from the environmental protection regulator for violating noise standards. Except one case occurred in ZhongLi District, Taoyuan City, has exceeded the requirements of the "Land Transportation System Noise Control Standards." THSRC has properly handled the issue with noise improvement plan, other issues were related on night-time operation noise affected to neighbourhood. THSRC will improve communication with neighbourhood to notify them 1-2 weeks in advance, and also we will reduce the broadcast volume during night-time operation. In 2023, 1 violation of noise issue was notified by the local Environment Protection Burea that requires improvement. Please refer to the table below for relevant handling conditions.

THSRC Noise Petition Handling Process



Note: The level of impact is determined in accordance with the technical specifications for environmental impact assessment set by the Environmental Protection Agency (EPA).

Number of Noise Petitions and Related Handling Statuses in the 3 Most Recent Years (2021~2023)

Year	Number of Items	Need to be Improved	Remark
2023	16	1	One public petition case has been received, residents complained about the noise from high speed rail, so the Department of Environmental Protection, Taoyuan conducted 24 -hour high speed rail traffic noise monitoring in October, 2023. The results showed that the average maximum volume of the high speed rail in this section exceeded the requirements of the "Land Transportation System Noise Control Standards", and it was required to formulate a noise improvement plan within 180 days upon receipt of the notification from the competent authority. There was no any panalty by the authority.
2022	19	1	One public petition case in Waipu District, Taichung City has been received. In this case, residents complained about the noise from high speed rail, so the Department of Environmental Protection, TaiChung conducted 24-hour high speed rail traffic noise monitoring in October, 2022.The results showed that the average maximum volume of the high speed rail in this section exceeded the requirements of the "Land Transportation System Noise Control Standards", and it was required to formulate a noise improvement plan within 180 days upon receipt of the notification from the competent authority. THSRC has properly handled the issue and submitted the noise improvement plan for review on November 15 , 2023. Environmental Protection Bureau has confirmed and replied on February 21, 2024.
2021	18	1	The case that needs to be improved in 2021 was the noise improvement case of Section 2, Dacheng Road, Dayuan District, Taoyuan City. In this case, residents complained about the noise from high speed rail, so the Department of Environmental Protection, Taoyuan conducted 24-hour high speed rail traffic noise monitoring. The results showed that the average maximum volume of the high speed rail in this section exceeded the requirements of the "Land Transportation System Noise Control Standards", and it was required to formulate a noise improvement plan within 180 days upon receipt of the notification from the competent authority. THSRC's project team has properly handled the issue and submitted the noise improvement plan for review on February 14 , 2022 and the Environmental Protection Bureau issued a letter on May 16 agreeing to review.
Total	53	3	-

Climate Change Mitigation and Adaptation

In light of the increasing global concern regarding climate change, the government's commitment to achieving net zero emissions by 2050, and the rail transportation industry's response to the threat of climate change, THSRC acknowledges the potential impact and difficulties that climate change may pose to sustainable operations. As a result, THSRC has proactively implemented a range of measures to mitigate and adapt to climate change.

In 2023, THSRC implemented a mechanism to evaluate climate-related risks and opportunities based on the Task Force on Climate-Related Financial Disclosures (TCFD) framework's four major recommendations and eleven recommended Disclosure. The objective is to assess the impact of climate change on the Company, implement systematic adaptation measures to mitigate its effects , and improve operational resilience. The TCFD requirements encompass the following four recommendations:

Governance

The Corporate Governance and Nomination Committee of the Taiwan High Speed Rail Board of Directors has established a Corporate Governance Promotion Committee. This committee is supervised by the Board of Directors and the Chairman and comprises the President and senior executives of the management department. The Corporate Governance Promotion Committee oversees the corporate governance planning team, sustainable development team, and ethical management team, which remain committed to addressing sustainable development management issues within the Company. Additionally, the Corporate Governance Promotion Committee will report to the members of the Corporate Governance and Nominating Committee and the Board of Directors on the progress and effectiveness of the implementation annually. In 2024, THSRC will adjust the name of " Corporate Governance & Nomination Committee" regarding to its role and responsibility.

The Company has established a "[Risk Management Policy](#)" , overseen by the Audit Committee of the Board of Directors, to manage risks across all areas of its operations. This includes an Environmental Management Committee, chaired by the General Manager and comprised of top executives from various divisions, to oversee the implementation and regular review of environmental risks and objectives, and to communicate environmental management practices. To facilitate cross departmental communication and enhance overall operations, a working group spanning multiple departments or divisions has been established under the Environmental Management Committee to manage environmental management-related business.

As per the risk management framework, the team responsible for promoting and implementing risk management will report annually to the board. The report will review the response and effectiveness of risks related to climate change. For additional information regarding climate governance, please refer to the "[Corporate Governance Structure](#)"and [THSRC's annual reports](#) , [Corporate website](#) and the [Market Observation Post System \(MOPS\)](#).

Strategy

In 2023, THSRC conducted a comprehensive assessment of climate change risks and opportunities referring to the TCFD disclosure framework. The latest climate risk assessment was completed by the Company at the end of the 2022. Taking into account the unique characteristics of the railway transport industry and prioritizing internal natural disaster management practices, the assessment identified six major risks from 22 climate-related risks, including two transition risks and four physical risks. The potential impacts of these risks were also evaluated based on their timeline. Please refer to the table below for the results of this evaluation.

Climate Risk Factor	Climate Risk Events	Timeline	Impact on Operations	Potential Impact on Financials
Transition Risk	Regulations and policies: increasing costs of greenhouse gas emissions	Medium-Term	In light of the 2050 net-zero emissions target and the enactment of the Climate Change Response Act, corporations will be obligated to remit carbon fees in stages based on their industrial characteristics, leading to enhanced expenses for greenhouse gas emissions. 1. As per the Climate Change Response Act, the existing carbon pricing mechanism follows a phased approach. It is anticipated that a carbon fee will be implemented in 2024, which could potentially result in a surge in the expenses associated with greenhouse gas emissions. 2. Due to the implementation of the carbon fees on construction projects, the contractor may pass on the resulting costs to the Company.	<ul style="list-style-type: none"> The increase in cost and expenses will result in a decrease in operating income. In accordance with the 2050 net-zero carbon emission transition mechanism and the imperative for energy conservation and carbon reduction, we will replace our equipment by procuring products with low-carbon emissions or equipment that boasts high energy efficiency. Evaluate the possibility of purchasing renewable energy certificates or carbon credits.
	Technology: Transitioning to low-carbon technology	Medium-Term	THSR might be unable to completely replace its equipment with alternatives that have lower carbon emissions and are energy-efficient.	
Physical Risk	Acute physical risk: increased extreme weather events - typhoon-induced damage ^(Note 1)	Short-Term	May cause operational disruptions and damage to infrastructure and assets: 1. The strong winds and heavy rainfall brought by a severe typhoon may cause slope collapse and scouring of river bridge foundations, and subsequent slope and bridge repair work will be required to maintain or restore their performance. 2. A severe typhoon with strong winds and heavy rainfall may cause disaster damage to ongoing project, resulting in extended construction periods and affecting normal operations.	<ul style="list-style-type: none"> Decrease in operating income. Additional labor cost and maintenance and operation costs required for equipment/ infrastructure damage repair.
	Acute physical risk: increased extreme weather events - heavy rainfall ^(Note 2)	Short-Term	Operational disruptions due to waterlogged stations, track failures and sliding slopes along the track, etc.: 1. Short periods of heavy rainfall may cause disasters such as slope collapse and flooding of engine rooms along the route, and subsequent repair work will be required to maintain or restore their performance. 2. Short periods of heavy rainfall may cause damage to the ongoing engineering projects, resulting in extended construction periods and affecting normal operations. 3. After a short period of heavy rainfall, the project site will need to be inspected by staff, and there is a risk of unanticipated accidents that could endanger lives.	<ul style="list-style-type: none"> Decrease in operating income. Impairment of asset value. Increases the resilience of infrastructure, requiring additional labor costs and maintenance and operation costs.
	Acute physical risk: increased extreme weather events - extreme heat ^(Note 3)	Short-Term	1. THSR has not been able to replace its equipment with alternatives that have lower carbon emissions and save energy. 2. Failure to meet the targets set out in the net-zero emissions roadmap may also result in damage to the reputation of the Company.	<ul style="list-style-type: none"> Disruption of operations, resulting in a decrease in operating income. Impairment of asset value.
	Chronic physical risk: increase in average temperature	Long-Term	Climate change will affect travelers' needs and preferences, for example, consumers may choose more environmentally sustainable modes of transportation.	<ul style="list-style-type: none"> To increase the resilience of infrastructure, requiring additional labor costs and maintenance and operation costs.

Note: 1. "Typhoon-induced" refers to weather events caused by strong winds (gust velocity >30m/s) and heavy rainfall from severe typhoons
 2. "Heavy rainfall" refers to short duration heavy rainfall weather events with hourly rainfall >50mm/h and 24-hour rainfall >250mm/24h
 3. "Extreme high temperature" refers to weather events where the maximum temperature for the day exceeds 37.6 degrees

Based on the results of the climate risk assessment mentioned before, THSRC has chosen climate risk events that will have a "short-term impact" and has taken an assessment of response measures. Currently, THSRC has established an early warning mechanism for climate disasters and will further enhance the disaster tolerance of track-related infrastructure and the climate resilience of operating system. This will ensure the provision of safe and secure services, allowing passengers to travel safely.

Climate Risk Factor	Climate Risk Events	THSRC's Response Measures
Physical Risk	Extreme physical risk: increased extreme weather events - typhoon-induced winds	<p>The Company has formulated guidelines for adverse weather operations and provided contingency measures for different typhoon intensities to enhance the prevention and response to such extreme weather events:</p> <ol style="list-style-type: none"> 1. Suspension of operations: From the time the typhoon warning is issued, THSRC will have an Emergency Operations Center (EOC) set up to closely monitor the typhoon situation and consider the forecast of strong winds and rainfall in each region before making a decision to suspend operations 2. Resumption of operation: Normal operations will be resumed gradually after regular line inspections have been arranged, taking into account wind speed, rainfall, and route conditions. In the future, technology will continue to be introduced to strengthen disaster tolerance and early warning capabilities (such as cooperation with the Industrial Technology Research Institute (ITRI) to develop a drone track patrol system) and strengthen the THSRC internal disaster prevention and response mechanism.
	Extreme physical risk: increased extreme weather events - heavy rainfall	<p>The Company has severe weather disaster mitigation measures and corresponding contingency measures in place. Despite the relatively short forecast period for rainstorm disasters, the following measures were taken to respond timely with appropriately:</p> <ol style="list-style-type: none"> 1. Ensuring safety: Rainfall forecasts are obtainable from both the Central Weather Bureau and private weather forecasting companies. The Company <ol style="list-style-type: none"> (1) implements train deceleration contingency measures based on actual rainfall and location; (2) installs monitors on bridges across rivers and implement operational contingency measures for train deceleration or shutdown, depending on the flood level; (3) assesses the potential impact of disasters and take contingency measures to move vehicles from underground sections or Wuri base. 2. Maintaining operations: The high-speed rail transportation sector has implemented a natural disaster warning system (DWS) along its route. In the event of heavy rainfall causing rockfalls or landslides, THSR can promptly halt train operations. Depending on the situation, the trains can operate in either a "one-way, two-way" or "two-zone operation" mode. 3. The high-speed railway's slopes are characterized by poor geology, resulting in high and steep slope designs. In recent years, extreme weather conditions have caused continuous deterioration of the slopes' internal and external environmental conditions. This has led to changes in stress conditions and other issues that require enhanced slope management and monitoring. In 2023, the Company completed a total of 389 slope inspections and improvements, classified as A, B, C, and D based on their impact on operational safety (A being the highest risk and D being the lowest). In the future, we will strengthen the slope monitoring and protection mechanism by introducing digital technology to update and upgrade the slope automated monitoring system. (The system has been completed and put into operation in September 2023)
	Extreme physical risk: increased extreme weather events - extreme heat	<p>The Company has severe weather disaster mitigation measures and corresponding contingency measures in place. Detectors are installed on the main turnouts to monitor and record the rail temperature to avoid compromising operational safety.</p> <ol style="list-style-type: none"> 1. For high rail temperatures, THSR sets safety levels from 51°C (inclusive) and above to ensure safety; below 61°C (inclusive), monitoring is stepped up but there are no restrictions on train operation; above 61°C (inclusive), operation will be at a reduced speed; and above 65°C (inclusive), operation will be halted. 2. Due to the high temperature tolerance of THSR rails, internal evaluation of extreme high-temperature events has a limited impact on train operations
	Long-term physical risk: increase in average temperature	

One of the six primary axes of THSRC's sustainability strategy, THSRC's medium to long-term strategic blueprint for the next five years, is to address the impact of extreme climate and mitigate disaster risks. To achieve this, THSRC will actively collaborate with government agencies, academic institutions, and relevant industries to enhance climate adaptability, minimize operational disruptions, and reduce financial losses.

Strategy : Adapting to extreme climate and reducing disaster risk



01

Strategic Planning
Introducing technology to enhance disaster tolerance and early warning capabilities

Focus Areas

- Strengthening toughness/weather resistance of existing facility structures.
- Introducing artificial intelligence and Internet of Things (AI+IOT) technology and strengthens the effectiveness of disaster warning and facility monitoring.
- Introducing telemetry and unmanned drive to improve observation efficiency.



02

Strategic Planning
Reviewing disaster preparedness in response to extreme climate threats

Focus Areas

- Building operational emergency support and decision support system.
- Developing mobile response information platform.
- Implementing slope safety management and disaster warning and response system.
- Reviewing and implementing the security operations of the basic SOP.

Climate change presents both risks and opportunities for businesses. THSRC is capitalizing on the advantages of low-carbon transportation and plans to enhance its energy efficiency by investing in renewable energy installations at stations and maintenance depots. The Company's goal is to establish a zero-carbon transport value chain. In addition to addressing climate risks, THSRC aims to offer consumers environmentally friendly, fast, and convenient services, thereby promoting sustainability throughout Taiwan. The following table outlines the climate-related opportunities identified in this review:



Technology

Climate Opportunity
improving energy efficiency

Potential Impact on THSRC
Reducing cost for energy use

Details of Opportunity
Improve the energy efficiency of maintenance depots and stations, introduce high-performance trains and equipment, and inventory opportunities for greenhouse gas reduction



Markets

Climate Opportunity
Changes in consumer demand for green products and services

Potential Impact on THSRC

- Increase brand value, higher corporate evaluation ratings, and increase investor and shareholder confidence.
- As passengers choose more sustainable transportation methods, the demand for passenger capacity increases resulting in revenue growth.

Details of Opportunity
Increased environmental awareness may lead consumer to prioritize more environmentally sustainable low-carbon travel products to increase revenue

Risk Management

Process for Identifying and Assessing Climate-Related Risks

THSRC has completed the identification of climate-related risks and opportunities by following the TCFD recommendation and utilizing international railway transport industry practices. This was achieved through cross-departmental interviews and discussions, as well as reviewing and incorporating existing internal natural disaster management and response mechanisms. Qualitative assessment was used to determine the impact of climate change on the Company's operations and financial performance. The results will serve as a foundation for future risk review and decision making, with the aim of enhancing THSRC's climate risk management measures and strengthening its ability to respond to climate change.

Identify, Assess, and Manage Climate-Related Risk Process and Integration of Management Systems

THSRC reviewed and identified the potential risks that could impact its operations and financial performance based on business and operational activities. Key factors considered include the business environment, operations, finance, and hazardous events. Evaluations are conducted to ensure the integrity of corporate risk management and the effectiveness of risk control, as well as to assess major issues related to the internal and external environment, society, and corporate governance. Therefore, set up an operational framework and identify primary risk categories, such as environmental risks (including those related to climate change), information security risks, operational security risks, and financial risks.

THSRC has developed a "Risk Management Policy" that unites multiple committees at various levels to recognize and evaluate potential climate change risks within a risk management framework that encompasses all aspects of the Company's operations. The risk management promotion and implementation team report to the board of directors and audit committee annually. The team proactively and cost-effectively creates pertinent risk management practices, response methods, and conducts effectiveness reviews to assess, revise, and enhance THSRC's resilience to climate risks through medium and long term risk strategies, objectives, and project promotions.

Indicators and Targets

THSRC has committed to echoing global and domestic carbon reduction and net-zero goals, with the aim of formulating performance reduction and quantitative targets for greenhouse gases, water resource management, and energy management. The achievement rate of each indicator is regularly monitored and reviewed, and internal management policies are adjusted on a rolling basis, based on the results of the annual review, to mitigate the impact of climate change through target management. For information on the relevant target achievements and other environmental-related performance in 2023, please refer to the "[Low-carbon Train Operation and Environmental Sustainability](#)" subsection in this section.

	Profile Disclosure / Target	Performance Item	2021	2022	2023
Energy Management <small>(Note 1)</small>	Annual average electricity saving rate per passenger served <small>(Note 2)</small> >0.86%	Total electricity consumption (tons MWh)	9,089.537	9,141.130	9,138.384
		Average electricity consumption per passenger served (kWh)	2.091	1.688	1.250
		Electricity savings (MJ)	18,977.791	-1,857.3228	98.8607
		Electricity saving rate (%)	12.380%	19.273%	25.916%
Water Resource Management <small>(Note 1)</small>	Profile Disclosure <small>(Note 3)</small> >3.42%	Total water consumption (cubic meter)	590,363	648,901	709,144
		Average water consumption per passenger served (cubic meter)	0.014	0.012	0.0097
		Water saving rate (%)	17.170%	11.764%	19.014%
Greenhouse Gas Management <small>(Note 1)</small>	The average annual rate of carbon reduction per person-kilometer <small>(Note 4)</small> >1.50%	Total emissions (metric tons of CO ₂ e) <small>(Note 5 - 6 - 7 - 8)</small>	285,609.55	316,942.85	317,679.09
		Average grams of CO ₂ e per passenger-kilometer (gram of CO ₂ e/passenger-kilometer)	37.735	33.941	25.284
		Carbon reduction rate (%)	19.406%	10.055%	25.507%

- Note: 1. The electricity saving rate, water saving rate, and carbon reduction rate calculations for 2023 were based on the previous year's values. In 2021, the performance was compared to the adjusted base values of 2.387 kWh of electricity per passenger served for electricity savings, 0.0164 cubic meters of water consumption per passenger served for water savings, and 46.18g of CO₂e per passenger-kilometer for carbon reduction. A "positive" value for the reflected electricity saving rate, water saving rate, and carbon reduction rate represents a decrease, while a "negative" value represents an increase.
2. The scope of setting indicators and targets encompasses the electricity consumption of HSR stations, including the Taoyuan Operation OMC Building, but excluding commercial areas, parking lots, and public areas shared with the Taiwan Railways Administration (TRA) at Nangang, Taipei, and Banqiao stations, as well as depots. For performance evaluations related to THSR trains and THSRC's headquarters office, please refer to the subchapters titled "[Building Low-carbon Trains](#)" and "[Optimization of Sustainable Operations](#)".
3. The indicator and target setting scope pertains to water consumption at HSR stations, encompassing the Taoyuan OMC Building but excluding commercial areas, parking lots, and water consumption in public areas shared with TRA at Nangang, Taipei, and Banqiao stations, as well as maintenance depots.
4. The indicator and target setting scope encompasses the electricity and gasoline/diesel fuel consumption of THSR trains, as well as that of HSR stations. This includes the electricity consumption in public areas shared with TRA (at Nangang, Taipei, and Banqiao stations) and Taoyuan OMC Building, but excludes commercial areas and parking lots, depots, and THSRC's headquarters office.
5. The emission factor of electricity is referred to the latest announcement from the Ministry of Economic Affairs.
6. The data in this table are self-examined by THSRC, and do not include refrigerant, welding rods, CO₂ fire extinguisher and Scope III emissions.
7. Emission factors for gasoline and diesel fuel were corresponding factors from Version 6.0.4 (June 2019) of the Greenhouse Gas Emission Factor Management Table published by the Ministry of Environment,
8. GHG Emission = the amount of Electricity Consumption / Diesel procurement x the emission factor Global warming potential (GWP) : Global Warming Potential (GWP) used in the Greenhouse Gas Inventory is from Intergovernmental Panel on Climate Change (IPCC)'s sixth version assessment report in 2021

Energy Management

THSRC has implemented energy-saving projects at five maintenance depots and 12 stations, and has established a comprehensive energy efficiency improvement plan to develop zero-carbon emission green stations with the continued implementation of four major energy-saving schemes "autonomous energy conservation management, reduce electricity consumption, transfer peak electricity usage, and use electricity reasonably". HSR stations are designed with a sustainable environment concept that includes "ecology, energy conservation, waste reduction, and health." Several energy-saving measures are implemented to suit the geographical environment of each station, reducing the load on building materials and air conditioning. The maintenance depots prioritize energy reduction planning and several improvement measures for existing equipment to reduce the average energy consumption of passengers served at the stations and maintenance depots.

Energy Conservation Measures at Maintenance Depots and Stations in 2023

Energy-saving label product procurement and replacement of energy-consuming equipment

- ◆ Each Maintenance Depots continues to substitute LED energy-saving light
- ◆ Replacement of split-type air conditioners at Zuoying depot
- ◆ Install independent air-conditioning systems with small chiller units
- ◆ Nangang Station, Taoyuan Station, Hsinchu Station, Taichung Station, Chiayi Station and Zuoying Station Air Conditioning Replacement and Additional projects
- ◆ The 12-seat station has successively replaced its lighting with LED lighting, and all of them have been replaced by the end of 2023

performance adjustment of the power supply system equipment for energy conservation

- ◆ In line with Taipower's promotion of the "New Peak Off-Peak Time Zone" rate scheme, the original peak-to-peak electrical equipment will be moved to off-peak under assurance of the safety and quality of transportation services
- ◆ Change from two-stage time-of-use tariff to three-stage
- ◆ Reduce the original contracted electricity capacity during the summer months ^(Note 1)
- ◆ Hsinchu Station has reduced its frequent contract capacity from 1,250KW to 1,200KW; Changhua Station has reduced the frequent contract capacity from 620KW to 590KW

Optimize the efficiency of water supply system equipment

- ◆ The water supply system at Yanchao Main Workshop Administration Building to be changed from irrigation pumps to gravity-fed Change the operation mode of blowers at wastewater treatment plants
- ◆ Increase the temperature of outflowing water from cooled chillers
- ◆ Improve the monitoring function of the small energy-efficient chillers

Note: This is a "planned electricity consumption reduction measure" during the summer months (June to September), which means that Taipower provides tariff incentives, and the Company evaluates its own operating nature and applies for a contract for measures to reduce electricity consumption. During periods of high load on the power system or power supply difficulties, Taipower can guide users to reduce or suspend part of the electricity consumption to improve the system load.

In response to the global trend of sustainable energy transition and in line with the renewable energy policy promoted by the government, THSRC has built solar power generation facilities at maintenance depots and stations. In 2023, the annual solar power generation reached 9,673.471 MWh. The total power generation of the four maintenance depots was 7,186.51 MWh, and the power generated was all sold to Taipower; the total power generation of the six HSR stations was 2,486.96 MWh, of which 186.23 MWh was used by the HSR station, and the rest was sold to Taipower.

Solar Power Generation at Four THSR Maintenance Depots

Maintenance Depots	Installed Capacity (W)	Annual Power Generation (MWh)		
		2021	2022	2023
Wuri Maintenance Depot ^(Note 1)	1,436.25	1,864.20	1,703.12	1,512.94
Yanchao Main Workshop	3,856.59	4,512.94	4,930.32	4,243.62
Zuoying Maintenance Depot ^(Note 2)	1,410.17	2,175.03	962.16	841.71
Liujia Maintenance Depots	499.72	605.35	576.48	588.24
Total amount at all four maintenance depots	7,202.73	9,157.52	8,172.08	7,186.51

Solar Power Generation at Six HSR Stations

Stations	Installed Capacity (W)	Annual Power Generation (MWh)		
		2021	2022	2023
Miaoli Station	72	39.812	28.537	20.061
Changhua Station	99.38	77.29	46.044	68.732
Yunlin Station	93.18	100.80	91.446	97.436
Tainan Station	499.72	622.87	670.515	664.599
Chiayi Station	968.44	1,027.41	1,005.50	1,046.06
Taoyuan Station	499.84	631.32	529.12	590.077
Total amount at all six stations	2,232.57	2,499.50	2,371.16	2,486.96

Total Energy Consumption ^(Note 1 - Note 3)

Unit: GJ

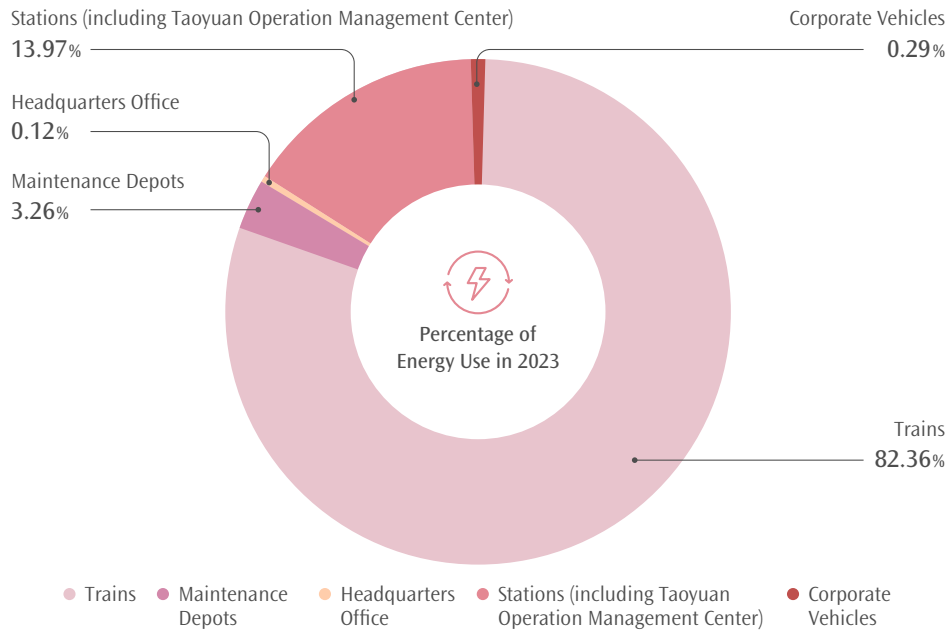
Year	Trains	Stations						Headquarters Office		Corporate Vehicles		Total Amount				
		Maintenance Depots			Stations (Including Taoyuan Operation Management Center and the Public Area of the Shared Station with Taiwan Railway)			Electric power	Renewable energy ^(Note 2)	Gasoline	Diesel fuel	Gasoline	Diesel fuel	Electric power	Renewable energy	Total energy
2021	1,625,775.28	66,910.38	0	6,736.96	315,763.71	784.45	175.18	3,857.01	0	2,658.01	5,027.75	2,658.01	11,939.89	2,012,306.38	784.45	2,027,688.73
2022	1,844,543.43	66,633.02	0	7,625.20	318,996.18	597.70	197.43	3,907.56	0	2,555.57	3,807.31	2,555.57	11,629.94	2,234,080.18	597.70	2,248,863.39
2023	1,909,693.44	65,724.83	0	9,804.97	322,996.76	670.42	167.06	2,751.22	0	2,310.99	4,538.18	2,310.99	14,510.20	2,301,166.25	670.42	2,318,657.87

Note: 1. THSRC used the Energy Product Unit Heating Value Table as specified in the 2016 Energy Statistics Handbook published by the Bureau of Energy, the heating value of 1 liter of diesel fuel for motor vehicles is 7,800 Kcal/L, and the heating value of diesel fuel is 8,400 Kcal/L, which is 4.187KJ per Kcal; 1 kWh= 0.0036GJ.

2. Solar power generation facilities at four maintenance depots of Wuri, Yanchao, Zuoying, and Liujia were installed on the rooftop area of these maintenance depots rented by operators in the electric power industry. Electric power generated by such equipment was sold to Taiwan Power Company, so there was no data of green power consumption. As there is no renewable energy equipment installed at the headquarters office, there was no data of green power consumption, either.

3. The scope of energy consumption in each year are constant as whole THSRC, included all trains, maintenance depots, stations, Taoyuan Operation Management Center, headquarters and corporate vehicles.

Percentage of Energy Use in 2023



Percentage of Energy Use

Year	2021	2022	2023
Trains	80.18%	82.02%	82.36%
Maintenance Depots	3.63%	3.30%	3.26%
Stations (including Taoyuan Operation Management Center)	15.62%	14.22%	13.97%
Headquarters Office	0.19%	0.17%	0.12%
Corporate Vehicles	0.38%	0.28%	0.29%

THSRC not only actively implements low-carbon measures related to transportation services but also promotes energy saving measures in its operations. The Company aims to achieve the medium and long term goal of energy conservation and environmental protection through various measures, such as improve building energy consumption efficiency, increase electronic devices energy efficiency and also introduced green material project to achieve environmental sustainability goal. The headquarters office and Taoyuan Operations Management Center aim to save energy and reduce carbon emissions by 10% before 2027. As a result, THSRC headquarters office and Taoyuan Operations Management Center achieved significant energy savings in 2023 as below.

✘ Headquarters office

- The complete substitution of LED lighting in August 2019 and installation of heat-resistance window film in the headquarters office until December 2023 has result in a total electricity savings of 179,043 kWh and a reduction in emissions of roughly 117 metric tons of CO₂e.
- In 2023, approximately 49,620 electronic documents were utilized, resulting in the conservation of approximately 595,440 sheets of paper, 71 trees, and a reduction of 852 kilograms of carbon emissions ^(Note).

✘ Taoyuan Operation Management Center

- Taoyuan Operation Management Center total energy consumption in 2023 was 4,670,000 (kWh), compared with 2022 total energy consumption 4,850,000 (kWh), decrease 180,000 (kWh), which equal to reduction of 118 tons CO₂e.
- Plan to substitute 400 LED lighting annually which approximately saving 40,000 kWh energy consumption yearly, which roughly reduce about 26 tons CO₂e.
- From January 2020 to December 2023, a total of 320,000 kWh of electricity has been saved, equivalent to a reduction of 163 metric tons of CO₂e emissions. The insulation material of the ice water pipeline has been replaced with a new insulation material that meets the UL-94 HF Class 1 fire protection certification year by year, and a total of 19 areas on the 2nd floor, 3rd floor and 1st basement floor of the Taoyuan Operation Management Center have been completed by 2023.

Note: Based on a reduction of 12 sheets of paper per electronic document and 5 grams of A4 paper per sheet, the switch to electronic documents will save about 2.97 metric tons of paper in 2023; according to the information provided by the Environmental Quality Protection Foundation (http://www.eqpf.org/wood2/consurion_3.html) one metric tons of paper requires cutting down 24 trees of 12 meters in height and 15 to 20 centimeters in diameter; one tree absorbs about 12 kg of CO₂e per year (<http://www.eqpf.org/sf/3-1.html>)

With the increasing consumer awareness of sustainability, THSRC is also offering a low-carbon and convenient riding experience to its customers through a range of ticketing services. The relevant performances for 2023 are outlined below:



Overall, THSRC has successfully reduced the cumulative number of magnetic/paper tickets used by passengers by 57.69 million pieces. In 2023, the number of magnetic/paper tickets used by passengers decreased by 6.25 million pieces, demonstrating the effectiveness of THSRC's efforts to promote the use of periodic/multi-ride tickets.



Due to the implementation of mobile tickets, the total number of magnetic and paper tickets used by passengers has decreased by over 91.90 million. In 2023, there was a reduction of 19.85 million magnetic and paper tickets used by passengers.



The cumulative number of passengers utilizing co-branded credit cards for non-reserved seat service has surpassed 15.13 million individuals. In 2023, the total number of magnetic/paper tickets used by passengers decreased by 2.01 million.

Greenhouse Gas Management

Greenhouse Gas Emissions

In 2023, THSRC completed 2022 greenhouse gas inventory and verification operations of the whole company (Scope 1 and 2) and supply chain (Scope 3), with an inventory coverage rate of 100%, including 12 stations, 5 Maintenance Depots, Headquarters office, Taoyuan Operation Management Center and main line (trains and roadside equipment). In September 2023, we obtained the ISO 14064-1:2018 verification statement. We are committed to continuing to promote environmental sustainability in the future, including continuing to conduct greenhouse gas inventory and verification, and promoting energy conservation and carbon reduction measures to reduce carbon emissions per person-kilometer, as shown in the following table :

Unit: metric tons CO₂e

Greenhouse gas emissions		2021 ^(Note 2)	2022 ^(Note 3)	2023 ^(Note 4)
▶ Scope 1: Direct greenhouse gas emissions		503.91	6,310.52	1,268.73
▶ Scope 2: Greenhouse gas emissions from input energy (electricity).		43,397.69	309,005.65	316,410.36
▶ Scope 3: Indirect greenhouse gas emissions	Greenhouse gas emissions from transportation (carbon emissions from upstream transportation and distribution of goods, employee commuting, business travel).	NA	3,702.02	NA
	Greenhouse gas emissions from the organization's use products (emissions from purchased goods, emissions generated upstream of energy resources, emissions from capital goods, emissions from solid and liquid waste disposal).	8,865.40	90,337.37	NA
	Greenhouse gas emissions from the organization's products (downstream leased assets emit electricity/ tap water).	NA	8,144.82	NA
	Greenhouse gas emissions from other sources	NA	NA	NA

- Note: 1. The inventory of greenhouse gas emissions in this table adopts the operational control approach.
 2. Greenhouse gas emission inventory in 2022 included only 12 THSRC stations.
 3. Greenhouse gas emission inventory in 2022 included whole company, including 12 stations, 4 maintenance depots, Headquarters office, Taoyuan Operation Management Center and main line (trains and roadside equipment); and followed with ISO 14064-1:2018 standards which obtained in 2023, September. As the calculation of electric power emission in 2022 was updated in 2023, so the data was different from that in THSRC's 2022 and 2023 Sustainability Reports.
 4. THSRC green house gas emission self-inventory does not included refrigerant, welding rods, CO₂ fire extinguisher and others Scope III emission. 2023 green house gas emission expected to be completely inventoried and verified in 2024, December, the data will updated in 2024 Sustainability report and published in 2025.
 5. Emission factors for gasoline and diesel fuel were corresponding factors from Version 6.0.4 (June 2019) of the Greenhouse Gas Emission Factor Management Table published by Ministry of Environment.
 6. The Global Warming Potential (GWP) was taken from the fourth assessment report of the Intergovernmental Panel on Climate Change.
 7. The types of greenhouse gases emitted included sulfur dioxide, methane, nitrous oxide, fluorocarbon, perfluorocarbons, and sulfur hexafluoride.

Building Low-Carbon Trains

THSRC utilizes the industrial benefits of low-carbon transportation to offer passengers environmentally friendly, fast, and convenient transportation services while effectively mitigating the environmental impact of operations. The average electricity consumption per passenger served at THSR stations and bases has decreased from 2.25 kWh in 2008, with a yearly decrease of 0.73 kWh. However, in 2023, the electricity consumption per passenger at THSR stations and bases increased to 1.00 kWh and 0.25 kWh, respectively. Nevertheless, this still represents a significant reduction from 1.35 kWh at THSR stations and 0.34 kWh at the bases in 2022. When calculated in terms of the passenger-kilometer carried by THSRC in 2023, the Company was able to reduce CO₂e by 1,042,859 metric tons compared to smaller passenger cars. This reduction is equivalent to the carbon uptake of 2,681 Da-An Forest Parks.

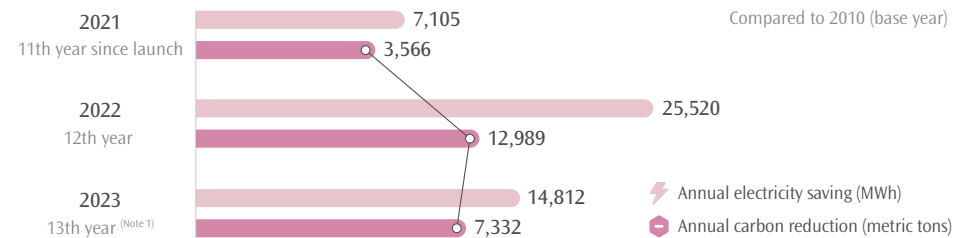
External Affirmation

- "Carbon Footprint label of High Speed Rail Transportation Services" and "Carbon Footprint of Passenger Transportation Between Stations" verification certificate and label.
- In 2020, we applied to the Ministry of Environment for an extension and were awarded a renewed carbon footprint label, which valid until December 16, 2025. As we have achieved our carbon reduction commitment of reduction by more than 3% within three years (by 4.92% in practice), we were awarded a "Carbon Reduction Label."



In order to continuously improve the energy use efficiency of trains, THSRC has introduced the LED device replacement plan and the energy-saving train operation plan. The former one has been promoted from November 2013 to the end of 2023, saving 14,847 MWh of electricity cumulatively and reducing CO₂e by 7,669 metric tons. The latter one continues to promote energy-saving plans through the "Train Energy Conservation Team," which has been promoted from 2010 to 2023, reducing approximately 332,986 MWh of electricity and CO₂e by 173,935 metric tons. The table below shows the amount of electricity saving and carbon reduction in the past three years

Energy-Saving Train Operation Performance



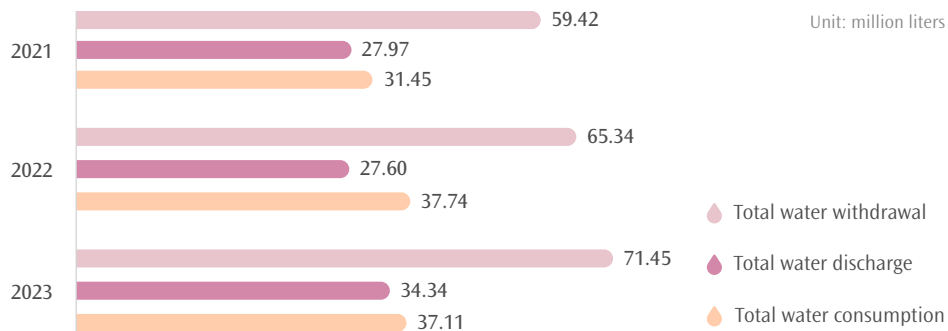
- Note: 1. THSRC used the 2010-2022 National Electric Power Emission Factor published by the Bureau of Energy and calculated emissions in 2023 using emission factors in 2022.
 2. Only electricity consumption in train operation was included. Electricity consumption for lighting and air-conditioners on trains was not included.
 3. The original annual carbon savings in 2022 as compared to those in 2010 were 12,990 metric tons, which was adjusted to 12,989 metric tons in the recalculation due to the adjustment of the 2022 emission factors.
 4. In 2023, due to the landslide incident restoration on the Miaoli section, the speed limit of trains was implemented, resulting in a decrease in the energy-saving benefits of train driving in that year.

Use of Water Resources and Wastewater Treatment

THSRC has implemented three major strategies, namely water conservation, use reduction, and recycle and reuse. Meanwhile, established an Energy Conservation Project Team to hold quarterly review meetings to examine the progress of implementation and actively practice water resource management. In 2023, the water conservation rate reached 19.01%, which is an improvement from 2022 and continues to meet the goal of reducing water consumption.

In 2023, THSRC used the water resources management tool of the World Resources Institute (WRI) for risk assessment. THSRC's water intake source is in the fifth range of 2.6-3.0 in a medium-to-low stress region. THSRC stations, maintenance depots, and THSRC's headquarters office use tap water as the source of water rather than groundwater.

Regarding waste water management, THSRC has set up waste water treatment plants at various maintenance depots and Taoyuan, Hsinchu, Miaoli, Taichung, Changhua, Yunlin, Chiayi, and Tainan Stations. Professionals with wastewater treatment licenses will classify and treat the sewage to meet the standards for effluents^(Note 1). The remaining stations directly discharge sewage into sewers with sewage treatment fees paid regularly. Moreover, environmental management audits performed, THSRC complies with the "Water Pollution Prevention and Control Measures Plan," and the requirements of environmental laws and regulations. The total water discharge in 2023 was 71.45 million liters, and a report was filed on the quality and quantity of effluents from the sewage treatment plants as scheduled.



Note: 1. The effluent standard complies with the effluent standard limit of the "specially polluted sewer system in other designated areas or places" specified under the Water Pollution Control Act, which includes water temperature < 35°C (October to April) < 38°C (May to September), pH value between 6.0 and 9.0, oil and fat <10 mg/L, suspended solids <30 mg/L, chemical oxygen demand <100 mg/L, biochemical oxygen demand <30 mg/L, ammonia and Escherichia coli).
 2. The raise of total water withdrawal was mainly due to the increase in traffic volume by 34.55% compared with last year (2022).

Waste Disposal

THSRC is committed to reducing the amount of waste and increasing the rate of waste recycling year by year. The recycling of THSRC's waste, including the resources generated from train maintenance operations and transportation services, as well as the recycling, clean-up, and disposal of and general industrial waste and waste at all HSR maintenance depots and stations are all processed by qualified licensed operators. Non-recyclable general industrial waste is ultimately disposed in incinerators. THSRC also manages the contractors through a contract mechanism to facilitate supervision of their compliance with relevant waste regulations. In 2023, the total amount of waste treated as per the reports filed was 7,322.23 metric tons, and 2,191.88 metric tons of waste was recycled, with a recycling rate of approximately 29.9%. The recyclables are classified into waste paper, waste plastic, scrap iron and others (including scrap copper, scrap aluminum, waste lighting sources, waste lead storage batteries, and waste glass containers, etc.), covered by 24.15%, 6.73%, 58.53% and 10.58%, respectively. In 2023, no breach of contract occurred, and no leakage of oil, fuel, chemical substances, or waste occurred. THSRC not only urges the implementation of internal waste management, but also actively encourages suppliers to take actions. In our contracts with contractors, we require them to properly clean and dispose of the waste generated. Furthermore, the awareness-increasing session in meetings on interface agreements and work meetings with contractors, we supervise each contractor's implementation of waste treatment measures through on-site audits.

In 2023, THSRC invested approximately NT\$67.015 million in waste water and waste treatment. The primary projects focused on enhancing the wastewater treatment plant management at Taichung Station. These projects included equipment maintenance and upgrades, equipment expansion and repairs, coagulants, precipitants, and disinfectants, water quality inspections, commissioning of sludge collection and disposal, and outsourcing of waste collection and disposal. Additionally, THSRC installed grease traps in Taoyuan, Hsinchu, Taichung, and Tainan to effectively separate oil and water from waste oil and sewage generated by station merchants during operations, thereby reducing the environmental impact.

Waste Disposal at HSR Stations and Maintenance Depots

Unit: metric tons

	Stations		Maintenance Depots		Stations and Maintenance Depots		
	Amount of Waste	Amount of Resources Recycled	Amount of Waste	Amount of Resources Recycled	Amount of Resources and Waste Recycled	Total amount of waste	Resource and Waste Recycling Rate (%)
2021	3,891.98	495.29	442.27	1,117.82	1,613.10	5,947.35	27.1%
2022	4,288.59	621.99	565.92	830.23	1,452.22	6,306.73	23.0%
2023	4,675.78	1,016.51	454.57	1,175.37	2,191.88	7,322.23	29.9%

Total Weight of Hazardous and Non-Hazardous Waste

Unit: metric tons

Environmental Indicators		2021	2022	2023
Total amount of general industrial waste ^(Note 1)		5,947.14	6,292.87	7,322.18
The total amount of general industrial waste recycled		1,613.10	1,452.22	2,191.88
Type and amount of waste recycled and disposed (qualified service providers were commissioned)	Waste paper	389.64	418.89	732.93
	Waste plastics	108.64	152.77	156.54
	Scrap metal	944.12	622.17	925.77
	Others (including scrap copper, scrap aluminum, waste lighting sources, waste lead storage batteries, and waste glass containers)	170.71	258.39	376.64
Total amount of general industrial waste incinerated		4,334.04	4,840.65	5,130.30
Type and amount of waste incinerated (qualified service providers were commissioned)	Domestic waste	3,104.97	3,380.79	3,755.58
	Liquid manure	1,012.10	1,210.95	1,213.26
	Waste wood	92.27	142.26	73.16
	Others (including waste lubricants, waste paint, and inorganic sludge)	124.71	106.65	88.30
Total amount of hazardous industrial waste ^(Note 2)		0.2	13.86	0.05
Total amount of hazardous business waste recycled and processed		0.2	13.86	0.05

Note: 1. The waste from the headquarters office is processed by the building management unit altogether, and the waste from trains is included in that from stations or maintenance depots for processing altogether, so the relevant data has been included in this table.

2. "Hazardous industrial waste" is nickel-cadmium batteries.

Air Pollution Management

THSR operates as a zero-emission carrier, emitting no air pollutants except for those generated during train maintenance at the Yanchao Main Workshop. In this regard, the automated spray painting factory of Workshop was constructed since May, 2021 and was expected to be completed by the end of 2024 with air pollution control equipment, including manual painting factory, adding a central control system, automatic painting robot arm, electric self-propelled trolley (replacing bogie), automatic car washing (sewage recycling) equipment, and grinding and lifting platform and pulse bag dust collectors, activated carbon adsorption equipment, as well as catalyst incineration towers and other equipment, which are used to treat dust and volatile organic compounds (VOCs) generated during the spray painting process of trains. THSRC also obtained a stationary pollution source installation permit, and a stationary pollution source operation permit. Additionally, a report is regularly filed every quarter in accordance with the Ministry of Environment's "Administrative Measures for the Reporting of Stationary Pollutant Emissions in Public and Private Places." THSRC not only continues to perform environmental monitoring and environmental protection work through the Company's environmental management system, but conducts audits on the treatment of wastewater, waste and air quality at the Company's stations and maintenance depots through external environmental protection teams as well. In 2023, there was no punishment or penalty imposed by the competent authority due to environmental pollution.

In 2023, the total air pollution emissions from THSRC was 8.33 metric tons. Please refer to the table below for the emissions of different types of gases:

Unit: metric tons

Gas Category	Emissions in 2023	Gas Category	Emissions in 2023
Nitrogen oxides (NOx)	0	Volatile Organic Compounds (VOC)	8.29 ^(Note 1)
Sulfur oxides (SOx)	0	Hazardous Air Pollutants (HAP)	0
Persistent Organic Pollutants (POPs)	0	Particulate Matter (PM)	0.04 ^(Note 2)

Note: 1. Volatile organic compounds (VOC) are measured in kilograms and are calculated according to the percentage (y%) of VOC substances (X), such as toluene, xylene, ethylbenzene, etc., in various spray paint materials (M), such as M1* (X1Y1+X2Y2+X3Y3+...)% + M2(X1Y1+X2Y2+X3Y3+...)% + M3(X1Y1+X2Y2+X3Y3+...)% +

2. The data of particulate matter (PM10) in 2022 was sourced from the declared amount of the Environmental Protection Administration's Stationary Pollution Source Air Pollution Fee and Emissions Declaration Integrated Management System, which was calculated as activity intensity x (1-control efficiency%) x emission factor.

The impact of the pandemic in recent years has led consumers to increasingly prioritize indoor air quality, HSR trains are equipped with a highly efficient "Circulation Ventilation System" that continuously draws fresh air from outside the train while in motion and at stops. On average, the system can replace the air in each car every 6 to 8 minutes. Fresh air is filtered through two stages in the air conditioning system before entering the cabin, while the air in the aisles and toilets is prioritized for removal. THSRC regularly cleans and replaces the filters to maintain air quality and promote passenger health, providing a fresh, clean, and comfortable travel environment. In compliance with the "Indoor Air Quality Management Law" of the Ministry of Environment, THSRC has commissioned an inspection and measurement agency to conduct indoor air quality monitoring at each station every two years, based on guidelines outlined in the "Indoor Air Quality Inspection and Measurement Management Regulations for Publicly Announced Establishments." Monitoring of indoor air quality is conducted at all stations, with parameters including carbon dioxide, carbon monoxide, formaldehyde, total volatile organic compounds, bacteria, fungi, PM10, PM2.5, and ozone. The monitoring results have consistently met the "Indoor Air Quality Standards". The 2023 testing data is presented below:

Stations	Continuous Monitoring of Carbon Dioxide for 8 hours ≤ 1000 ppm	Continuous Monitoring of Carbon Monoxide for 8 hours ≤ 9 ppm	Formaldehyde Continuous Monitoring 1 hour ≤ 0.08 ppm	PM10 Continuous Monitoring 24 hours ≤ 75 ug/m3	Carbon Dioxide Patrol Monitoring ≤ 1000 ppm	Monitoring Date
01 Nangang Station	473.00	0.90	0.0090	31.00	460~550	2023/11/28~29
02 Taipei Station	561.83	1.24	0.0087	25.59	513~619	2022/05/16~17
03 Banqiao Station	323.00	0.50	0.0087	46.00	460~596	2022/05/16~17
04 Taoyuan Station	451	0.5	ND(<0.0106)	19	436	2022/03/24~25
	479	0.5		13	464	
05 Hsinchu Station	462.00	0.60	ND(<0.0106)	26.00	418~553	2022/04/20~21
06 Miaoli Station	460.00	0.28	<0.02	18.68	460~545	2023/10/30~31
07 Taichung Station	522	0.2	0.01	13	496~575	2022/06/07~08
	420	0.2	0.01	16		
08 Changhua Station	467.00	1.60	<0.02	7.00	502.00	2023/12/01~02
09 Yunlin Station	510.83	1.09	<0.02	15.00	495~559	2023/11/22~23
10 Chiayi Station	422	0.5	0.02	9	460~662	2022/05/25~26
	417	0.3	0.0087	23		
11 Tainan Station	372	0.3	0.01	6	522~655	2022/05/11~12
	467	0.6	0.01	12		
12 Zuoying Station	455.92	0.61	0.01	12.25	456.00	2022/05/27~28

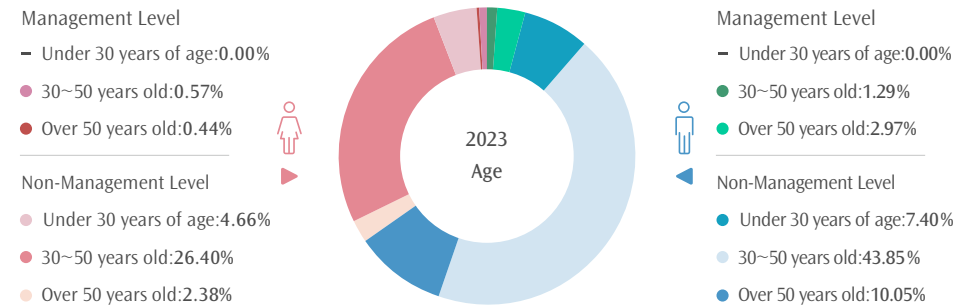
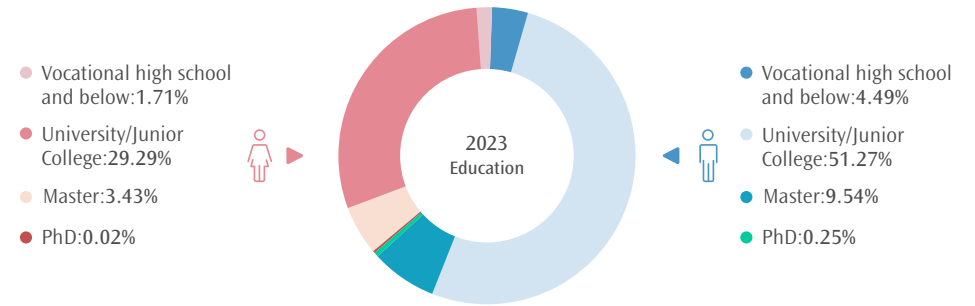
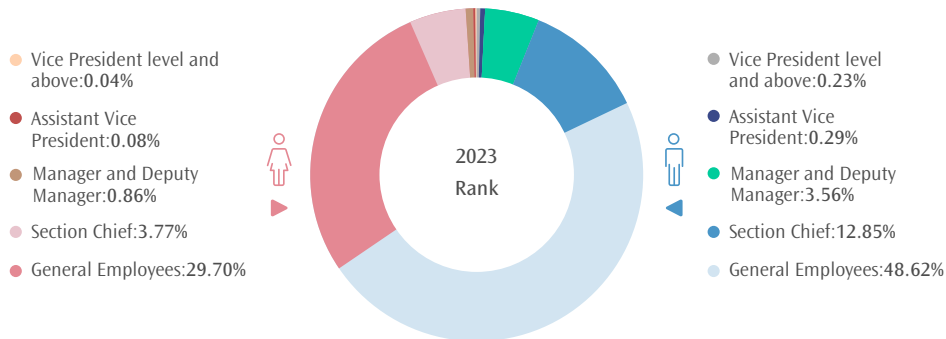
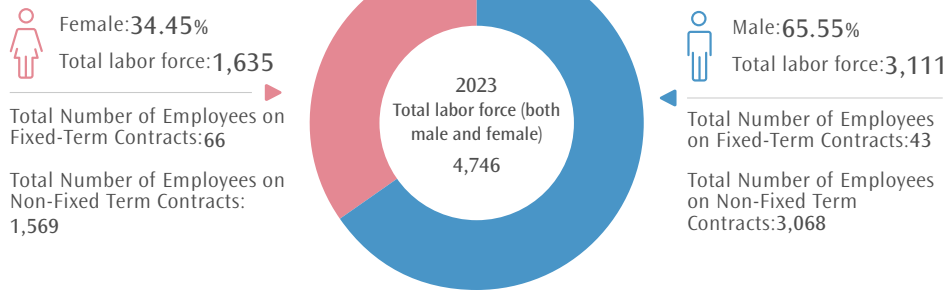
Nurturing Talent and Value Cultivation

Inclusive and Equal Employment

THSRC continues to attract a diverse range of professional talent, adhering to the principle of "the right person for the right job" as the core concept for recruitment, appointment, and remuneration design. The Company actively seeks to enhance workforce diversity and does not discriminate based on race, color, religion, gender, or nationality in talent selection. THSRC complies with relevant domestic laws, such as the Labor Standards Act, the Employment Service Act, and the Act of Gender Equality in Employment, when setting employee salaries, tenure, working conditions, and employment rights. This demonstrates THSRC's comprehensive and diverse employment system. The Company employs local talent, and 100% of senior management in its key operating locations in Taiwan are ROC nationals.

THSRC is committed to complying with regulations that support the employment and development of disadvantaged groups. Through various recruitment channels, we achieve the goal of diversifying our workforce. To this end, we have established a recruitment section on our website to hire staff with mental and physical disabilities based on job characteristics. In 2023, we employed 48 employees with disabilities, including 11 with severe disabilities, exceeding the legal requirement. Additionally, we recruited a total of 52 indigenous people.

Human Resources Structure



Type	Male	Female	Nothern Region	Central Region	Southern Region
Employees on Fixed-Term Contracts	43	66	46	32	31
Employees on Non-Fixed Term Contracts	3,068	1,569	2,168	852	1,617
Full-Time Workers	3,111	1,635	2,214	884	1,648
Total number of employees	3,111	1,635	2,214	884	1,648

Note: 1. Fixed-term contract employees are mostly front line interns (including station, service, and maintenance interns). Non-fixed term contract employees are full-time employees.
 2. The management level is defined as supervisors of section chief level and above.
 3. In 2023, no gig economy or part-time workers were employed.
 4. The calculation formula is the number of people in the particular group/Total labor force.
 5. The calculation of data on employees with disabilities did not include employees on unpaid leave. In 2023, THSRC employed a total of 48 employees with disabilities, including 11 with severe disabilities, which was higher than the 1% employment requirement as stipulated in the prevailing regulations. Human resources structure from 2021-2022, see Tables 3 in the Appendices.

Statistics of New Employees

		2023			
		Male		Female	
		Number	Percentage	Number	Percentage
Type	Train staff	23	5.69%	31	7.67%
	Station staff	58	14.36%	107	26.48%
	Operational control personnel	8	1.98%	5	1.24%
	Drivers	0	0.00%	0	0.00%
	Maintenance personnel	121	29.95%	6	1.49%
	Others	26	6.44%	19	4.70%
Age	Under 30 years old	149	36.88%	142	35.14%
	30-50 years old	85	21.04%	26	6.44%
	Over 50 years old	2	0.50%	0	0.00%
Total		236	58.42%	168	41.58%

Note: For the data on new employees from 2021-2022, see Table 4 in the Appendices.

Statistics of Resigned Employees

		2023			
		Male		Female	
		Number	Percentage	Number	Percentage
Type	Train staff	7	0.15%	13	0.27%
	Station staff	31	0.65%	30	0.63%
	Operational control personnel	8	0.17%	2	0.04%
	Train Driver	3	0.06%	0	0.00%
	Maintenance personnel	86	1.81%	1	0.02%
	Others	20	0.42%	15	0.32%
Age	Under 30 years old	68	1.43%	23	0.48%
	30-50 years old	71	1.50%	37	0.78%
	Over 50 years old	16	0.34%	1	0.02%
Total		155	3.27%	61	1.29%

Note: 1. Only in the calculation of the turnover rate while interns, dispatch manpower, and contract employees were not included.

2. For the data on resigned employees from 2021~2022, see Table 5 in the Appendices.

3. Above total number of 216, included 4 deaths (natural deaths) and 8 retirements.

Complete and Perfect Salary and Benefit System

THSRC implements human rights policies, values the rights and welfare of its employees and offers industry-competitive salaries and benefits, regularly reviews the remuneration policy with reference to the results of market remuneration surveys, evaluates the remuneration and related systems of directors and managers, and makes recommendations to the Remuneration Committee and the Board of Directors for approval. Taking into account the rights and interests of shareholders and employee compensation, salary adjustment is carried out to provide industry-competitive salary and benefits according to their work experience, educational experience, expertise and so on but without discrimination based on gender, race, religion, and political position. In 2023, THSRC was ranked as a constituent stock of the Taiwan Employment 99 Index, as one of the top 99 leading companies in terms of the scale of employees in Taiwan.

The starting salary of THSRC junior employees in each job category is higher than the basic salary in Taiwan and does not differ due to gender. As most of THSRC's technical professionals are males, and their salaries are higher than other positions due to the nature of the professional services, there is a difference in the salary ratio of females to males in the general positions, with the ratio of salaries for section chief and managerial staff being comparable; Due to the relatively small number of staff at the Assistant Vice President or Vice President level, and the fact that salaries are influenced by the length of service in that position which resulted in a relatively large difference in the ratio of female to male salaries, but no significant difference, demonstrating the equality of THSRC's remuneration policy. Besides, in order to protect seconded and contract employee rights, their salaries are determined and approved by THSRC, and THSRC will inspect manpower agencies' labor contracts and salary-related documents to protect such employees' labor rights.

In 2023, the turnover rate of all THSRC's employees was 4.55%, which was higher than 3.6% in FY2022, mainly due to the fierce competition in the external market of maintenance department. In order to enhance the competitiveness of THSRC talent recruitment and enhance stability of the operation, at the end of 2023, the THSRC Board of Directors have completed the deliberation of the "2024 Salary Adjustment Principles" proposal, and announced that starting from January 1, 2024, the starting salary of new employees in specific positions, such as maintenance, will be increased, and the "annual salary increase" will be implemented from April 1, 2024, with an average salary increase of approximately 4.9%, which has exceeded the previous salary adjustment since 2015, demonstrating the effort of THSRC on sustainability and talents management. THSRC committed to build a happy workplace continuously to attract more talents and inject diversity and vitality into the company.

Comparison with Basic Salaries in Taiwan

Item	Female	Male
Local Basic Salary (NT\$)	26,400	
Starting Salary for Junior Staff (NT\$)	33,800	33,800
Ratio of starting salary for junior staff to local basic salary	1.28	1.28





Ratio of Basic Salaries of Females to Males ^(Note)

Rank	Female	Male
Vice President level or above	1	1.07
Assistant Vice President	1	1.09
Manager and Deputy Manager	1	1.01
Section Chief	1	1.00
General Employees	1	1.07

Note: THSRC calculates the ratio of basic salary of females to males based on the fixed monthly salary paid to non-fixed term contract employees every month.

In 2023, there were 4,649 full-time non-supervisory employees in THSRC, a increase of 34 people over the previous year. The total salary was NT\$5,017,424 thousands, the average salary was NT\$1,079 thousands, and the median salary was NT\$991 thousands. Compared with the previous year, the total salary increased by NT\$640,119 thousands, the average salary increased by NT\$131 thousands, and the median salary increased by NT\$131 thousands.

Information on Salaries of Full-Time Non-supervisory Employees

Item	Unit	Annual variation
 Number of full-time non-supervisory employees	● Number	2022 ▶ 4,615
		2023 ▶ 4,649
 Total salary of full-time non-supervisory employees	● NT\$ thousands	2022 ▶ 4,377,305
		2023 ▶ 5,017,424
 Average salary of full-time non-supervisory employees	● NT\$ thousands	2022 ▶ 948
		2023 ▶ 1,079
 Median salary of full-time non-supervisory employees	● NT\$ thousands	2022 ▶ 860
		2023 ▶ 991

The 2023 annual total salary of THSRC is calculated based on the salary information of full-time employees without executive positions. However, to meet the statistical requirements of "the top individual" and "other employees," executive positions are also included in the calculation. The highest paid individual in the Company earned an annual total salary 7.24 times higher than the median annual salary of employees. Additionally, the annual increase in the salary of the highest paid individual was 0.15 times higher than the annual increase in the median annual salary of employees.

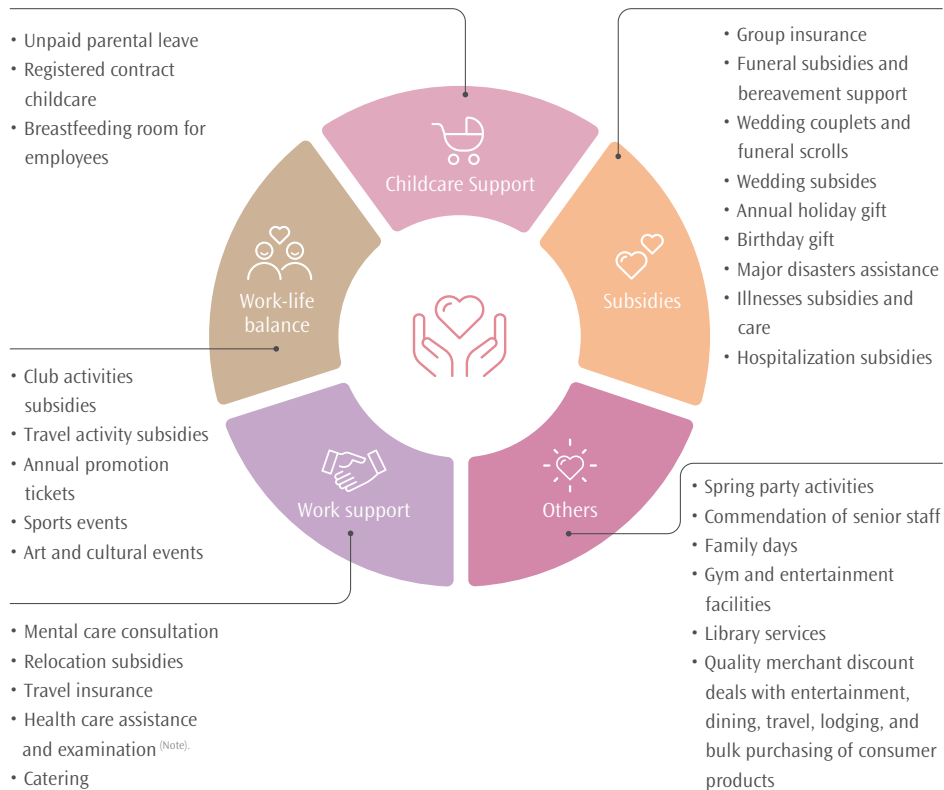
THSRC adheres to the concept of "happy employees create a joyful and touching riding experience for passengers", provides a transparent and fair compensation system, as well as multiple benefits such as childcare support, work-life balance, work assistance, and subsidies. To help employees balance work and life, THSRC provides a variety of benefits, including childcare support, work-life balance, work support, and subsidies. We have established an employee welfare committee in accordance with the law and regularly review our internal welfare policy through market surveys conducted by external consulting companies to ensure competitiveness. THSRC also explores ways to protect employees' wages and career development without restrictions, encourage employees "Worry-Free about Pregnancy, Childbirth, and Childcare". For employees who apply for statutory unpaid leave, including parental, injury, illness, and military service, regardless of gender, if the Company implements a salary adjustment during the unpaid leave, the annual salary adjustment system can still be applied after reinstatement to protect their working conditions.

Statistic of THSRC's Parental Leave

Item	2022			2023		
	Male	Female	Total	Male	Female	Total
Number of employee eligible for parental leave in the current year ^(Note)	213	153	366	207	142	349
Number of applicants for parental leave in the current year	27	129	156	26	156	182
Number of employee to be reinstated in the current year (a)	30	80	110	24	114	138
Number of employee reinstated in the current year (b)	30	73	103	24	99	123
Reinstatement rate in the current year (%) (b/a)	100	91.3	93.6	100	86.8	89.1
Number of employee reinstated last year (c)	11	72	83	30	73	103
Number of employee reinstated in the previous year but return to work for more than one year (d)	11	67	78	25	62	87
Retention rate of reinstatement last year (%) (d/c)	100	93	94	83	85	84.5

Note: The number of eligible applicants for maternity leave and paternity leave will be counted in accordance with the relevant laws and regulations.

THSRC Employee Benefits and Work Support Items

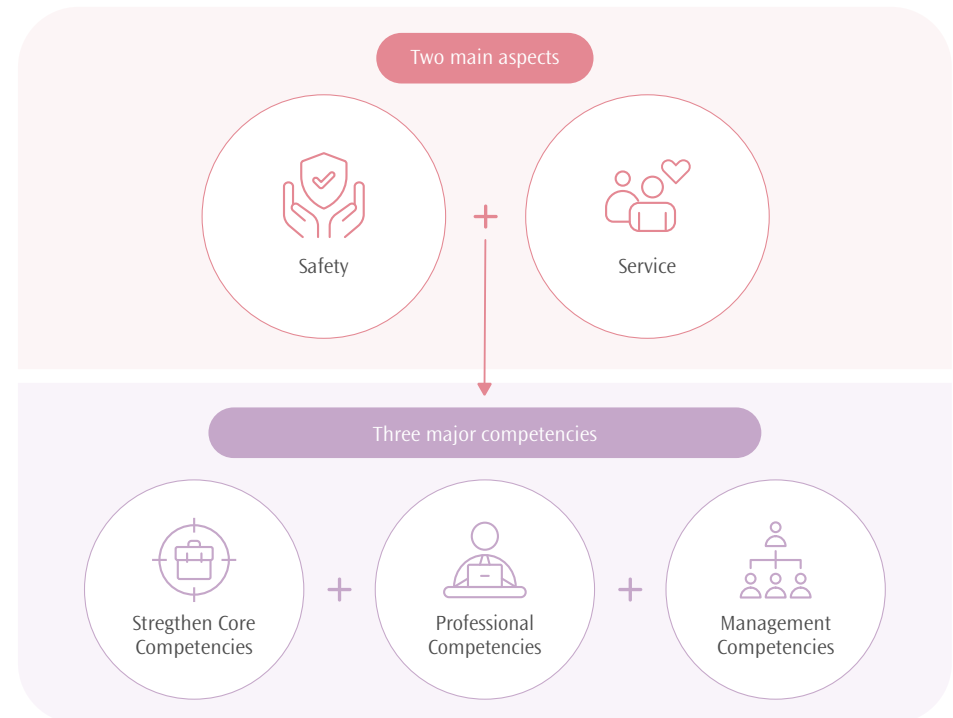


Note: THSRC's health examination measures are superior to those stipulated in the relevant laws and regulations, where general employees aged 45 years old and above undergo health examination once a year, and those aged under 45 years old undergo health examination once every two years, while train personnel undergo health examination once a year. The 2023 annual health examination for general and train personnel was completed from March to September, and 100% of train personnel completed the health examination.

Comprehensive Employee Training

Training Based on Three Major Competencies

THSRC places great emphasis on the development of employee competencies. To ensure the integration of training and practice, the Company plans employee education and training based on two main aspects: "safety" and "service". THSRC also strengthens the professional knowledge of the three major competencies, namely core competencies, professional competencies, and management competencies. To cultivate professional talents in the transportation industry and stimulate employee enthusiasm for learning, the Company combines multiple learning channels, including external training, online digital courses, and practical exercises. THSRC has established a "Training Management and E-Learning System" and a mobile learning app to effectively monitor the learning process and enhance learning efficiency. In 2023, as the pandemic has been on a downward trend of the year, the internal training situation within the Company gradually returned to pre-pandemic levels. Some 83,777 learning sessions were conducted during the year, with a monthly average of 6,981 sessions, representing a 8% increase compared to 2022. In order to synchronize employees career growth with the company growth, we set up complete functional development blueprint, and provide various training to improve their capability according to different career development stages, covering all colleagues from new comer to supervisors at all levels, with a total of 445 learning courses in 3 major competencies in 2023.



Type of Competencies	Core Competencies	Professional Competencies	Management Competencies
Key Content	Related training to shape employees' values, safety, quality, and services	Related training to enhance job knowledge and skills required by employees	Related training to advance management philosophy and thinking, strategic thinking, planning and organization, and leadership among supervisors
Applicable Personnel	All employees	All employees	Junior, middle, and senior supervisors
Progress	1. THSRC offers online courses, including train assistant, ethics and integrity education and training, confidential information protection operations, and information safety and management. These courses enable employees to acquaint themselves with THSRC's culture of integrity and respond prudently to information security incidents, thereby preventing unlawful activities.	1. THSRC's frontline technical and service personnel are required to pass certifications and participate in incident simulation drills to ensure a consistently high level of sensitivity to transportation safety. 2. THSR train drivers are required to complete over 1,000 hours of professional driving courses and pass THSRC's internal training test to obtain driving certification. Additionally, they must pass the high-speed rail train driving license test administered by the MOTC before they can commence their duties as a train driver.	1. To cultivate supervisors' competencies and strengthen management efficiency and quality, THSRC has formulated various strategic thinking and leadership training courses. 2. Planned a two-day, "Effective Communication and Cross Department Negotiation Workshop" "Break-through Thinking and Decision Making Work-shop", "Performance Enhancement and Subordinates Coaching Workshop", "Creative and Innovative thinking Development Workshop" and "Continuous improvement & Decision making quality enhancement Workshop" for individual managers. 3. All supervisors undergo scientific assessment to evaluate their managerial competence, and training is provided based on the gap between the assessment results and their current competencies. In 2023, the total number of evaluated supervisors to 274 by the end of the year. To enhance management performance, training courses such as "communication ability", "supervisory ability", "innovative" and "cognitive ability" will continue to be arranged, and "The Management Learning Passport" will remain in operation.
Implementation results in 2023	1. 100% of employees completed train helper training 2. 100% of employees completed ethics and integrity training. 3. 100% of employees completed training in confidential information protection operations and information security and management	1. 99% of railway maintenance personnel obtained professional certification 2. 100% of employees completed train personnel skill test training	1. 100% completion rate for the "Performance Enhancement and Mentoring Workshop" and "FrameworkBreaking Systems Thinking and Decision Making Workshop" 2. 100% of employees completed management ability evaluation training

THSRC has implemented the "Career Path" talent development plan, designed different retention and career development paths for outstanding talents in front-line units and colleagues in different positions, and planned relevant manpower allocation based on the annual manpower assessment to meet various business units manpower needs. Based on organizational needs and personal development, we provide annual promotion opportunities for outstanding talents to achieve the purpose of motivating and retaining talents. For those who are interested in In-charged of management positions and meet the requirements, they can also expand their career path and fully realize their potential through the Job Promotion" channel.

Starting from 2022, THSRC would plan a specific career development path for maintenance and operation employees, and expects maintenance professionals to learn diversified skills and enhance communication skill through different job experiences, expand future maintenance and operation supervisors, and improve the efficiency of company operations. In 2023, a total of 101 maintenance personnel have been trained, 61 have completed the training, and 40 are still in training. By 2023, we have cultivated a total of 18 station masters, 23 train supervisors, 21 chief controllers, 2 deputy station managers, 1 operation team leader, 2 controller supervisors, 20 station supervisors, and 21 station train controllers, 1 train driver and 1 train controller.

As the company grows, methods of nurture future successors, build a talent pool and talent echelon is one of the company's important strategies. In 2019, THSRC launched the management capability evaluation project, through scientific evaluation tools, inventory and confirms the gap between supervisor management ability and potential, improve all supervisor management skills and capabilities, and then select high-potential talents, establish personal development plans for cultivating future successors. In 2019~2023, a total of 276 managers at all levels have been evaluated for their management abilities and develop their learning passports. Several key talent training such as "communication skills", "cognitive skills", "supervisory skills" and "innovation" have been carried out based on their lacking competencies.



Effective Communication and Cross Department Negotiation Workshop



Breakthrough Thinking and Decision Making Workshop



Performance Enhancement and Subordinates Coaching Workshop



Creative and Innovative thinking Development Workshop



Continous Improvement & Decision Making Quality Enhancement Workshop

Internal Lecturer Cultivation

To enhance the professional knowledge and technical expertise of THSRC employees and to meet the growing demand for self-provision of professional courses, THSRC is committed to developing internal lecturers in areas such as safety, service, and technical services. These individuals are recommended or selected by senior colleagues or supervisors from relevant units and are qualified as internal lecturers after completing training courses and practical exercises. In 2023, THSRC successfully trained 71 qualified internal lecturers. The training primarily focuses on professional functions, with management functions as a supplementary component. In 2023, the total number of internal lecturer training hours was 43,144, with 957 internal lecturers participating in the courses, average of 45 hours for each internal lecturer.



Internal lecturer training courses

Results of Education and Training Programs

To ensure the effectiveness of internal education and training, THSRC has established a curriculum satisfaction survey mechanism and devised an improvement plan based on the scores. In 2023, the overall employee satisfaction, regardless of training category, was 4.6 points out of 5, demonstrating THSRC's commitment to talent development and its deep trust and recognition among employees. Going forward, THSRC will integrate internal and external resources to enhance the organization's learning ability and employees' self-growth, as well as cultivate their all-round competence.

Results of Education and Training Programs

The table below shows the number of training hours for different ranks and categories of THSRC employees in 2023. Due to the adjustment of annual training items, the number of training hours for new employees and employees in various positions has increased compared to 2022:

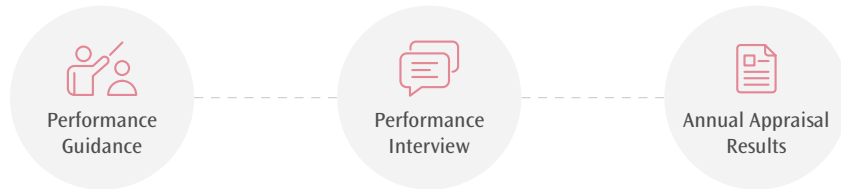
	2023		
	Female	Male	Total
All Employees at THSRC			
Number of Training Hours Per Capita (hours) ^(Note 1)	58.7	83.0	74.6
Average Number of Training Hours Per Training Session (hours) ^(Note 2)	2.8	3.2	3.0
Average Number of Class Hours Per Different Job Rankings ^(Note 4)			
Vice President and above	13.3	21.9	20.6
Assistant Vice President	30.6	30.1	30.2
Manager and Deputy Manager	50.2	65.1	62.2
Section Chief	51.6	77.6	71.7
General Employees	60.0	86.3	76.3
Average Number of Class Hours Per Different Categories ^(Note 6)			
Train staff	60.2	96.5	68.3
Station staff	70.0	61.5	66.8
Operational Control Personnel	120.8	118.7	119.1
Train Drivers	29.6	73.3	69.7
Maintenance Personnel	149.8	100.7	100.8
Others	43.4	60.2	53.6

- Note: : 1. Training hours per capita = Total training hours 354,084/Total number of trainees 4,746. The training hours per capita of males and females differ from each other mainly because of the ratio of males and females and different professional training attended due to job differences.
2. Average number of training hours per training session = Total training hours 354,084/Total number of training session 116,352. "Average number of training hours per training session" aims to present the number of training hours per training session for each person every year.
3. The calculation encompasses both fixed-term and non-term contract employees. Fixed-term contract employees primarily consist of front-line interns, including station, service, and maintenance interns. Non-term contract employees, on the other hand, are full-time employees.
4. In addition to course cancellations resulting from the pandemic, there was a increment in training hours for general staff in 2023 compared to 2022. The majority of this decrease was observed among maintenance staff, primarily because they were not required to undergo skills assessment this year, which is conducted once every two years.
5. Average number of class hours per different job rankings is calculated as: Total number of training hours for a job ranking/Number of employees trained at the particular job ranking throughout the year.
6. Average class hours for different categories is calculated as: Total number of training hours for a particular category/Number of employees trained for a particular category throughout the year.
7. For the training hours from 2021-2022, please refer to Table 6 in the Appendices

Talent Management and Motivation

THSRC conducts an annual performance appraisal for all employees and supervisors, which determines their ratings based on the appraisal results, assists employees to review their capabilities and performances. Performance interview session has been set up to ensure effective communication between supervisor and employees, to achieve the purpose of feedback, guiding and motivation, as an evidence for future career development. The ratings are classified into five levels, namely "Outstanding," "Significantly Exceeds Requirements," "Exceeds General Requirements," "Meets Requirements," and "Requires Improvement due to Inability to Perform Existing Work." Employees who receive the last rating are "required to undergo performance counseling to enhance their work", and unit supervisors provide necessary assistance and counseling to address the causes of poor performance. In 2023, the total number of full-time employees who underwent performance appraisal is 4,587, with only 10 employees who did not complete their appraisals due to their illness or departure during the appraisal period. The number of completed appraisals accounted for 99% of the total number of appraisals due.

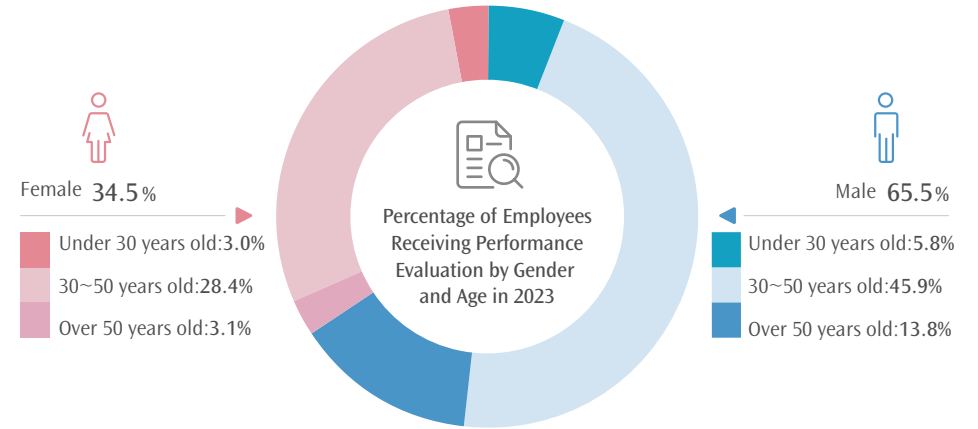
THSRC's Performance Appraisal Process



After Key Performance Indicators (KPIs) are set, supervisors manage appraisees' performance on a daily basis, routinely review the progress of target achievement, provide employees with the support required to complete their jobs and feedback regarding work results, attitude, and behavior. Supervisors also assist employees in achieving their KPIs through work guidance and assistance.

Employees and supervisors discuss about the achievement of work performance, and "competencies." Supervisors provide appropriate feedback, assist and counsel their subordinates to enhance/ improve their performance, discuss about employees' individual development plans, and plan specific approaches.

Appraisal results will be used as the basis of reference for training and development plans, job transfers, promotions, salary adjustments, bonus distribution, etc. for employees.



Protection of Rights and Considerate Care

Human Rights Policies and Employee Care

THSRC has complied with domestic labor and related laws and regulations. In 2018, we formulated a "Human Rights Policy" that was approved by the chairman and announced as the highest guiding principle of human rights governance for the Company. Our commitment to human rights extends beyond compliance with domestic laws and regulations. The Company also support and adhere to the principles and spirit of international human rights conventions such as the United Nations "Universal Declaration of Human Rights," the "Guiding Principles on Business and Human Rights," the "Global Compact," and the International Labour Organization's "Declaration of Fundamental Principles and Rights at Work." Furthermore, we have implemented a management approach to human rights issues that protects all employees who may be at potential risk and ensures that each employee is treated fairly and with respect. In future, the polices would extended to entire value-chain including our contractors, first-tier suppliers and passengers to avoid the violation of human rights (such as forced labor and child labor). As for the significant human rights incidents, the Company not only establishes appeal channels but formulates remediation measures based on the related regulations and operating standards.


Human Rights Risk Management

THSRC's primary risk concerns include freedom of association, care for vulnerable groups, the prohibition of child labor, the elimination of all forms of forced labor, and the eradication of discrimination in employment and career advancement. To address these human rights risks, we have implemented a comprehensive management mechanism and internal regulations to monitor, track, and assess the effectiveness of risk mitigation and remediation measures. Our goal is to eliminate any violations and abuses of human rights and ensure that all employees are treated with dignity. In 2023, anti-sexual harassment, anti-workplace violence issues had been added to respond to internation human right trends and exert corporate influence.

2023 Human Rights Concerns and Practices

Human Rights Concerns	Stakeholders	Implementation of Human Rights Risk Mitigation Measures
Freedom of association	Employees	<p>Human Rights Policy : To guarantee the freedom of employees to choose their purpose for association, to establish associations, and to decide whether or not to participate in the formation of associations and related affairs.</p> <ul style="list-style-type: none"> The freedom of association for employees is upheld, with over 100 distinct associations formed. To protect the right to solidarity among staff. Currently, the Company has two trade union organizations: the Corporate Trade Union and the Industrial Trade Union. We regularly convene meetings with these unions to foster harmony and enhance labor-employer relations.
Caring for the vulnerable	Employees Travelers	<ul style="list-style-type: none"> Employment of individuals with disabilities and indigenous peoples in compliance with the law and offer group insurance, bereavement care, inpatient medical care, and major disaster relief. To provide ride guidance services, accessible seats, elevators, parking spaces and accessible toilets. We are dedicated to providing a passenger-friendly, barrier-free environment and planning complete service packages.
Prohibition of child labor	Recruitment and employment in accordance with the law and no child labor is employed	<p>Human Rights Policy : Zero child labor under the age of 15</p> <ul style="list-style-type: none"> To protect children's right to education, the Company has excluded child labor under the age of 15 when selecting candidates, and no child labor is currently employed by the Company
Elimination of all forms of forced labor	Employees	<p>Human Rights Policy : Employees must not be compelled to work through violent means, coercion, detention, or any other unlawful methods.</p> <ul style="list-style-type: none"> Personal identification documents will not be withheld when registering, and no fees are required to be paid in advance. Unless otherwise stipulated by law (court deductions, employee deductibles, employee benefits, union dues, etc.), wages shall be paid in full. Employees provide labor on their own initiative.
Eliminating discrimination in employment	Employees Job Seekers	<p>Human Rights Policy : To avoid all forms of discrimination and differential treatment, to implement diversity in the workplace, and to promote equality at work</p>
Putting an end to human rights violations	Employees	<p>Human Rights Policy : To guarantee that employees have proper avenues for clarification and recourse in case their lawful rights and interests are violated, and are not subjected to any type of unfavorable treatment.</p> <ul style="list-style-type: none"> Establish measures for preventing and controlling sexual harassment, as well as regulations for addressing grievances, which should be made public in the workplace. Additionally, implement a two-tier complaint handling mechanism and a strong internal grievance system to ensure that all employee issues are handled appropriately. Individuals who violate or fail to comply with laws, regulations, and internal company policies will be subject to disciplinary action in accordance with relevant reward and punishment measures.
Anti-sexual harassment and anti-workplace violence	Employees	<p>Human Rights Policy : To ensure that individual employees can have appropriate channels for clarification and grievance when their legitimate rights and interests are infringed, and are not subject to any form of adverse treatment.</p> <ul style="list-style-type: none"> In 2023, THSRC has addressed and resolved 4 cases of sexual harassment. THSRC has established procedures for handling sexual harassment complaints, including deliberations and other measures. Immediate psychological counseling is provided to victims of such incidents, and all staff members are continuously educated on the prevention of sexual harassment and related legal issues. In addition, THSRC has established Workplace Misconduct Prevention Program, which identified unlawful infringement risks through caring visit and workplace hazards assessment to strengthen workplace safety and maintain employee's physical mental health.

Training in human rights

Course Content	Participants	Number of Participants	Number of Participants	Engagement Rate ^(Note)
 <ul style="list-style-type: none"> Workplace Misconduct Prevention and Interpersonal Boundaries Communication 	Anti-sexual harassment and anti-workplace violence		237	4.99%
<ul style="list-style-type: none"> Seminar on Gender Friendly Workplace - Prevention of Sexual Harassment in the Workplace 		All employees	4,763	97.5%


Note 1: Engagement Rate = total number of participants / total number of employees of THSRC in the current year

Labor Relations and Employee Care

THSRC highly values the opinions and rights of all employees and recognizes that effective two-way communication is a crucial component of sustainable business operations. On March 31, 2022, THSRC achieved a significant milestone by signing a collective agreement with the corporate trade union for the first time. This achievement comes after nearly six years of negotiations and demonstrates the commitment of THSRC and the corporate trade union to collaborate and enhance the rights and interests of employees. The collective agreement includes fundamental regulations on the agreement's status, validity, and scope of application, as well as 13 articles on business leave for trade union councils and supervisors, official leave for the four statutory meetings, provision of club house facilities, assistance in commuting to meetings, and assistance in labor education and training. This agreement applies to approximately 2,018 employees, which is 42.52% coverages. As the current collective agreement's content is based on the Company's existing labor conditions, the labor conditions and benefits of other employees not covered by this agreement, except for labor education activities, remain unaffected. THSRC acknowledges and upholds the right of its employees to freely associate and conducts regular meetings to engage with both unions (monthly meeting with corporate union and twice a month meeting with industrial trade union), as well as quarterly employee-management meeting with each business unit and 18 areas, ensuring that their voices are heard. In 2023, the main discussion topic covered the increment of subsidies on group meals and employee care, suggestions on talent retention strategies, adjustment of service allowances, improvement of work processes, and manpower allocation for service positions.

THSRC has implemented internal equipment and care measures in compliance with the "Act of Gender Equality in Employment" and "Labor Health Protection Regulations" to ensure employee well-being. Additionally, the Company has established the "Mental Health Protection Regulation" to cater to the diverse needs of its employees. THSRC continuously introduced an external "employee assistance program, EAP" to create a more employee-friendly work environment. This program aims to assist employees in addressing various issues, provide timely support and assistance, and maintain their physical and mental health. Further details are as follows:

Act of Gender Equality in Employment	<ul style="list-style-type: none"> ◆ THSRC has established baby care rooms and breastfeeding rooms for employees, encouraging and supporting breastfeeding policies, and establish Sexual harassment prevention measures and grievances procedures
Labor Health Protection Regulations	<ul style="list-style-type: none"> ◆ THSRC has established infirmaries at its headquarters office, Operation Management Center (OMC) building, and maintenance bases. Additionally, the Company has set up health rooms at HSR stations that exceed the standards required by relevant laws and regulations. These facilities are intended to provide employees with access to emergency medical assistance.
Mental Health Protection Regulations	<ul style="list-style-type: none"> ◆ In the event of an accident, team supervisors, accident investigation units, and human resources personnel will collaborate to ensure the mental health protection of employees. ◆ We collaborate with pertinent departments to offer health consultations, work allocation recommendations, and mental health consultations to employees who are facing mandatory retirement, major injuries or illnesses, or are adjusting to reinstatement to duty. In 2023, we provided assistance to a total of 71 employees. ◆ According to the relevant government policies to protect employees' physical and mental health and employees' needs, we have formulated employee mental health lectures.



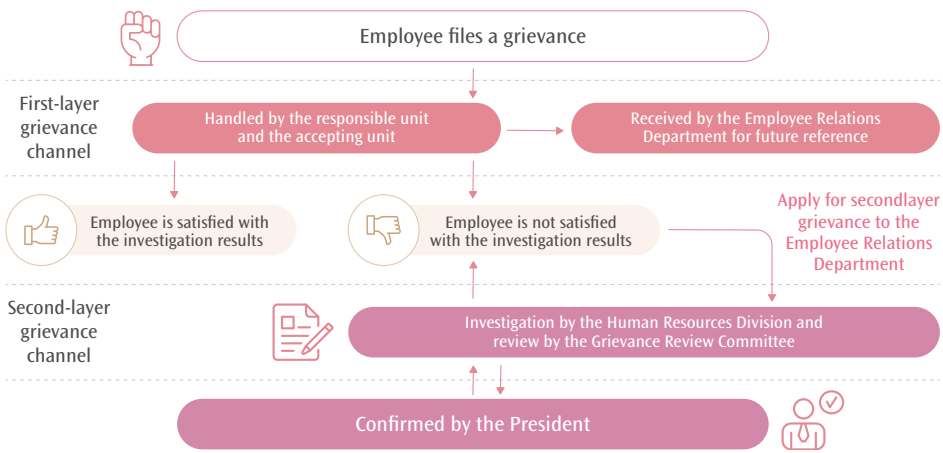
- ◆ Provide service cards, posters, electronic direct mailers, and publicity seminars to promote and introduce the employee support program
- ◆ Provide 24-hour telephone consultation, counseling, crisis intervention, and protection plans to assist employees in resolving organizational and personal issues that may affect work performance. A total of 68 employees were consulted in 2023.
- ◆ Provide a physical and mental health care platform which links relevant welfare and health information to allow employees to seek suitable assistance resources based on personal needs.
- ◆ Provide monthly physical and mental related publicity, self-assessment of emotional stress, and other new knowledge of mental health, and plan to conduct mental health lectures based on employees' mental health needs.

The chart below illustrates the procedure for addressing employee grievances at THSRC. In 2023, a total of 14 complaints were filed, primarily concerning interpersonal and management matters. All cases were resolved in accordance with the established employee complaint process, and all responses and cases were concluded. THSRC endeavors to enhance awareness of the process through trade union and labor-management conferences. The internal complaint mechanism has resulted in a substantial rise in the number of grievances. Going forward, THSRC will remain committed to proactively addressing employee complaints to foster harmonious labor-management relations and cultivate a transparent workplace environment.

THSRC is dedicated to eradicating sexual harassment and ensuring the physical and mental well-being of its employees in the THSR workplace. To achieve this, physical and online education and training will be provided to supervisors and colleagues. Units where sexual harassment occurs will receive specialized education and training, and psychological rehabilitation and counseling will be offered to victims. In 2023, 4,763 peers attended online e-learning courses, achieving a 97.5% participation rate.

In 2023, THSRC received a total of six sexual harassment complaints, total of four have been addressed and resolved, another 2 complaints were not addressed as they were categorized as non-attribute harassment. THSRC has established [Sexual Harassment Prevention and Handling Regulation](#). Immediate psychological counseling is provided to victims of such incidents, and all staff members are continuously educated on the prevention of sexual harassment and related legal issues. A Sexual Harassment Complaints Committee has been established, consisting of 13 members on a rotating basis, including internal members, external experts, and academics with legal backgrounds who serve as investigation and deliberation members. THSRC has developed a reference list of proposed sanctions and a scale of sanctions for sexual harassment cases to ensure open and fair criteria for scrutiny and to protect the physical and psychological safety of workers in the THSRC workplace.

Employee Grievances Process



Occupational Safety and Health

Occupational Safety Management Mechanism and Effectiveness

THSRC has implemented an occupational safety and health management system since its inception and continues to enhance its performance. In 2017, the Company achieved dual certification for the Taiwan Occupational Safety and Health Management System (TOSHMS) CNS 15506 and the International Certification of Occupational Safety and Health Management System OHSAS 18001, following a successful external accreditation. In 2020, THSRC passed an external review and obtained certification for (TOSHMS) CNS 45001 and ISO 45001, which have been routinely validated annually since. The Company's occupational safety and health management system encompasses stations, maintenance depots, facilities, and office spaces. At the end of 2023 the system covered 4,746 workers and 312,295 contractors.

In accordance with the provisions of the Occupational Safety and Health Act, THSRC has formulated the "Safety and Health Policy" and regularly convenes the "Occupational Safety and Health Committee". The committee comprises one chairman, one executive secretary, and 17 members, including seven labor representatives, accounting for one-third of all committee members. The Company also holds occupational safety and health management meetings to encourage all units and labor representatives to jointly review various occupational safety and health issues. The resolutions are announced through internal and external websites.

In order to cultivate and internalize the occupational safety and health culture, THSRC continuously implements various occupational safety and health training for new comer and in-service personnel by categorized employees into for supervisors, general employee and maintenance personnel. In addition, for colleagues engaged in high-risk operations, training including production machinery, mobile elevating work platforms, hoists, construction, hypoxia operations, electric welding, and chemical use and disposal were provided as to strengthen our employees' emergency response capabilities. In 2023, a total of 4,934 employees completed these training sessions, totaling 22,457 hours. Please refer to the following table for detailed training information:

Category of Occupational safety and health education training	Number of Employees Trained	Number of Training Hours
Supervisor	33	135
General Employees – three hours every three years	779	2,337
General Employee – one hour per year	1,728	1,728
Maintenance personnel – high risk	505	3,603
Laws and regulations	1,889	14,654
Total	4,934	22,457

THSRC has implemented the "Hazard Identification, Risk Assessment, and Risk Control Procedure" to address occupational hazards and reduce the likelihood and severity of occupational accident. This procedure involves identifying hazards, inspecting existing protective facilities, conducting risk assessments, and implementing control measures. THSRC has also adopted a hierarchical control system to eliminate hazards and minimize risks. Each unit has trained hazard assessment personnel who disclose hazard assessment information on the internal platform and recheck the effectiveness of hazard control measures annually to continuously mitigate and control the risk of each operation. In 2023, THSRC completed over 15,209 hazard identifications and risk assessments.

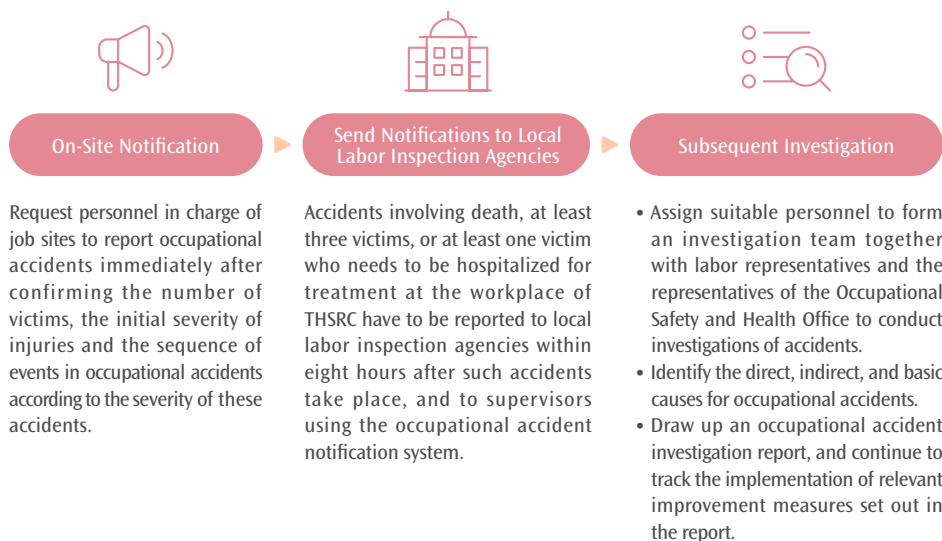
Hazard Identification, Risk Assessment and Risk Control Procedures



THSRC reminds all workers to actively report any situations that may cause occupational safety and health accidents by memorandum quarterly to reduce and avoid the risk. THSRC encouraged the reporting of Near Miss Report and integrates them into the "Voluntary Safety Reporting Platform". In 2023, there were 198 Near Miss Report in THSRC, and 107 Near Miss Report were being confirmed. In addition, we continuously remind our employees of safety-related precautions through the "Occupational Safety and Health Bulletin Board", "Safety Slogan", Consultative organization meeting, and also reminder email from the Occupational Safety and Health Office.

If a worker discovers that there is a risk of immediate harm when performing his/her duties, the "Occupational Safety and Health Act" shall prevail in priority, and the worker can stop the operation and retreat to a safe place. The immediate supervisor who is informed will initiate subsequent measures to eliminate hazardous situations to ensure the safety of workers. In case of a disaster, after the internal and local competent authorities are informed, THSRC will immediately initiate an investigation process as per the "Occupational Accident Notification and Investigation Process," with the aim of handling the incident effectively and alleviating the negative impact as quickly as possible. During the investigation, the immediate unit supervisor of said worker will lead the occupational accident investigation team to carry out the investigation jointly with labor representatives to ensure labor rights.

Occupational Accident Notification and Investigation Process



THSRC has established measurable and trackable indicators for evaluation, supported with periodic and non-periodic inspections and audits. The table below outlines the achievement of our occupational safety and health management goals for THSRC employees, contractors, and suppliers, as well as our occupational safety indicators for 2023.

Occupational Safety and Health Objectives and Effectiveness ^(Note 1)

2023		Target	Actual data		
			Male	Female	Total
THSRC Employees	Frequency-severity indicator for occupational accidents at the workplace ^(Note 2)	0.08	0.00	0.03	0.03
	Frequency-severity indicator for traffic related accidents outside the workplace ^(Note 3)	0.15	0.02	0.09	0.11
Contractors / Suppliers	Number of people in fatal accidents	0	0	0	0
	Number of people in accidents involving at least three victims	0	0	0	0

Note: 1. The settlement date for occupational safety and health management targets was December 31, 2023.

2. Frequency-severity indicator = $\sqrt{\frac{\text{Disabling Injury Frequency Rate} \times \text{Disabling Injury Severity Rate}}{1,000}}$

3. In 2023, THSRC employees experienced a total of 13 traffic accidents outside the workplace.

In 2023, THSRC reported no fatalities or serious injuries resulting from occupational accidents among its employees. The number of occupational accidents causing incapacity in the workplace was 7. Falls were the primary cause of occupational injuries, followed by improper actions by personnel. Workers who are not employees but whose work and/or workplace is controlled by the organization did not experience any occupational injuries resulting in "death" or "affecting more than three people". THSRC regularly publicizes the occupational accident cases and false alarms that happened to colleagues through multiple communication methods such as email, occupational safety and health bulletin board, agreement organization meeting, and toolbox meeting. As well as inviting occupational safety experts to give safety culture lectures to establish a safety culture. The management level strengthens on-site management and inspections, strives to instantly eliminate and improve unsafe conditions, and reminds colleagues to pay attention to work safety in real time. Under the principle of "non-hidden reporting", all occupational accidents on THSRC have been reported accurately in 2023, as well as no occupational disease-related incidents. In the future, we will continue to optimize occupational safety and health management measures to raise employees' awareness of safety protection.

Occupational Safety Index ^(Note 1)

2023	Employees	Contractors
Number of deaths resulting from occupational injuries	0	0
Ratio of deaths resulting from occupational injuries ^(Note 2)	0	0
Number of severe occupational injuries	0	0
Ratio of serious occupational injuries ^(Note 3)	0	0
Number of occupational injuries on record	7	0
Main categories of occupational injuries ^(Note 4)	0.15	0
Main categories of occupational injuries	Fall (2)	-

Note: 1. This table has been computed in compliance with the Occupational Safety and Health Act, the definition of occupational disasters, and the indicators released by the Global Reporting Initiative (GRI).

2. Ratio of deaths resulting from occupational injuries = (Number of fatal occupational injuries/Total working hours) x 200,000.

3. Ratio of severe occupational injuries = (Number of severe occupational injuries/Total working hours) x 200,000. Note: 0 employees for 0 day; 0 contractors for 0 days.

4. Ratio of occupational injuries on record = (Number of reported occupational accidents/Total working hours) x 200,000. Note: 7 employees for 19 days; 0 contractors for 0 days. Have been deducted from Notes 2 and 3.

5. Total working hours for employees were 9,365,416 hours. For contractors, the total working hours were calculated as: annual cumulative number of people entering and leaving the venue (312,295 people) * 8 hours per day = 2,498,360 hours

Employee Health Management Mechanism and Effectiveness

The main pillars of the THSRC employee health are: "health management", "health protection", "health promotion", "Legal Compliance Affairs" and so on., By the results of employees' physical examinations, questionnaire feedback, and the holding of various health promotion activities and lectures, we hope that our employees will strengthen their attention to their own health, and through the information provided by various activities, they can change their lifestyles and develop healthy habit.

THSRC has consecutively passed the "Healthy Workplace Certification - Health Promotion Label" certification of the National Health Administration for second times (certification every 3 years), and actively implements a smoke-free environment in the workplace; It has been awarded the sports enterprise certification mark of the Ministry of Education for three times, which shows that the company's investment in promoting employee health and sports has been affirmed. The health promotion activities carried out in 2023 are as follows:

Health Promotion Activities

2023	
Infectious disease prevention	<ul style="list-style-type: none"> A total of 513 people received publicly funded influenza vaccinations Health screenings provide free measles antibody screenings to enhance immunization boosting measures.
Occupational health services	<ul style="list-style-type: none"> In 2023, there will be a total of 144 On-site occupational health services by occupation physician.
Chronic disease prevention and health education promotion	<ul style="list-style-type: none"> Nineteenth educational articles on health were distributed through e-newsletters, High-Speed Vision, and occupational safety articles. These articles covered a variety of topics, such as tobacco harm prevention, infectious disease prevention, exercise protection, metabolic syndrome, new blood pressure standards, and weight management. Based on the previous year's staff health screening results for cardiovascular risk and workload assessment, we identified 37 patients for care. We then conducted occupational medicine interviews and follow-ups, achieving a 100% completion rate.
Health Promotion – The Activity of Weight Loss for Your Health	<ul style="list-style-type: none"> Considering obesity as the main cause of chronic diseases, the "Health Promotion – The Activity of Weight Loss for Your Health" was continuously organized, with a total of 857 people participating, with a total weight loss of 2,675 kg and a waist circumference reduction of 5,502 cm.
Health Promotion – The Activity to Take Your Blood Pressure Regularly	<ul style="list-style-type: none"> For the first time, 698 people signed up for the "Health Promotion – The Activity to Take Your Blood Pressure Regularly", and 457 people completed the two-stage participation. Encourage colleagues to develop the habit of independent continuous monitoring, early detection, early treatment, and improve the control rate of hypertension.
Maternal health protection	<ul style="list-style-type: none"> The "Pampering Pregnant Mothers" campaign aims to promote maternal protection by encouraging pregnant women to schedule appointments with specialist doctors for consultations. These consultations assist women in becoming aware of workplace risks, adapting to work, and addressing work placement issues. The campaign successfully completed 35 consultations, resulting in a consultation rate of 100%. This represents a 17% increase compared to the previous year.
Health seminars	<ul style="list-style-type: none"> Utilizing the "live + video" approach, we delivered 15 health lectures covering a range of topics including healthy diet, cardiovascular diseases, chronic diseases, mental health and weight management. The program attracted a total of 1,743 participants, reflecting a 62% increase in participation rate compared to the previous year.
Employee medical check-up	<ul style="list-style-type: none"> The medical check-up rate of pre-employment and in-service driving personnel is 100%. The participation rate of the active general staff in medical check-ups was 94%, with a total of 3,471 people ^(Note)

Note: Non-full-time employees are also entitled to health promotion activities (except for annual health examination)

"T-SPORT" Series of Activities for THSRC Personnel

In 2022, as the pandemic has been on a downward trend, THSRC devised a program called "T-SPORT" to promote healthy exercise habits and alleviate stress among its employees. The initiative aimed to foster team bonding and enhance staff cohesion through healthy cooperation and competition. The outcomes of the project are outlined below:

◆ Summer Marathon

Since the onset of the pandemic in 2020, the "Summer Marathon" online event was launched to encourage colleagues to upload their mileage records and share photos of their athletic achievements on the online platform via smart carriers. The objective was to promote a non-competitive, healthy sporting mentality among THSRC personnel, and to encourage departmental colleagues to engage in fitness activities, strengthen cohesion and identity, and maintain a robust physique. In 2023, The event garnered participation from 2,907 employees, with 2,382 individuals completing the race, resulting in a completion rate of 82%. The total mileage covered by participants was an impressive 389,620 kilometers.

◆ Ball games

The sports activities comprised "badminton", "billiards", and "slow-pitch softball" tournaments, with a total of 32 teams and approximately 500 employees participating with great enthusiasm in 2023. These events have provided an opportunity for colleagues to improve their physical health and communication skills in the post-pandemic era.



Motivating THSRC staff to participate in various sports events and be strong physically



Promoting the personal health of colleagues through active communication which will also enhance bonding between colleagues



Carrying for Society and Developing Local Area

THSRC has been operating for over a decade, providing convenient transportation services that promote intercity exchanges and activate local industry development. In addition to fulfilling our responsibilities in the travel industry, THSRC has also invested in the social welfare sector, aiming to contribute to society through our corporate influence and fulfill our responsibility as a social citizen. In 2023, we invested nearly NT\$15 million in sponsorships for various social welfare activities to promote co-prosperity in Taiwan.

THSRC has been a longstanding supporter of railway culture and has invested in the development of the arts. In 2023, we supported the "Arts project for Taiwan's high-speed rail", the "ROC's 110th Double Tenth National Day Celebration Sponsorship Case", the "ROC's 111th Double Tenth National Day Celebration Sponsorship Case" and the "ROC's 111th Double Tenth National Day Celebration Party Sponsorship Case". These projects won the "Gold Award" in the 16th Arts & Business Awards. Further details on THSRC's initiatives to promote arts and culture, social care, and ecological restoration will be provided in subsequent sections.

Enhancing Arts and Culture

"THSR ART Together Program"

Since 2015, THSRC has been promoting the "THSR ART Together Program" to provide a platform for domestic arts and cultural groups to perform and to increase opportunities for people to participate in and learn about the domestic arts and cultural industry. As of the end of 2023, the project has facilitated 658 performances with a total of 19,000 participants at various THSR operating bases. This initiative provides passengers with the opportunity to experience arts and cultural performances up close and promotes the beauty of Taiwan's arts and culture to the public.



The Spread Wings Choir performed at Zuoying station

Promotion of Railway Culture — Taiwan High Speed Rail Museum (THSR Museum) and Oiran Train Scenic Park

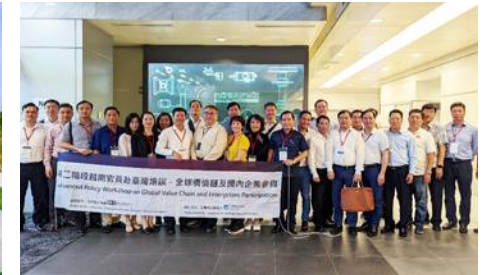
THSRC is committed to preserving railway culture and has been at the forefront of collecting railway cultural relics since the construction period. In 2003, the Company launched the "THSR Memorabilia Collection Project" and showcased the collection of cultural relics at the "Taiwan High Speed Rail Museum," which serves as a historical testament to Taiwan's high-speed rail from its inception. The museum was opened at the Taoyuan THSR Operation Management Center on January 5, 2017. To date, it has received over 223,007 visits and has become a vital platform for promoting high-speed railway culture and public services.

THSR core system contractor introduced the world's first commercial high-speed rail system - 0 series Shinkansen trains from Japan, and transformed it into a "Structure Gauging Car". The Structure Gauging Car arrived in Taiwan in August 2004 to carry out the measurement of the building limits of the entire high-speed rail line. Upon the completion of the task, it is stored in Liujia Maintenance Depots, and later it has been transferred to THSRC as collection. In 2018, Literary and Historical Research and Remediation Project was launched, it was relocated and officially displayed to the public at the Tainan Station Square after restoration on December 22, 2023. The renovated 0 series was nicknamed "Oiran Train" because of the detection probe surrounding the body, and the contractor engineer complimented it as the hairpin of the Oiran of the highest grade geisha in the Edo period of Japan, and nicknamed it " Oiran Train ", which also became the origin of the name of the " Oiran Train Scenic Park".

In order to expand the audiences of the Taiwan High Speed Rail Museum, the " Digital & Virtual Navigation for Taiwan High Speed Rail Museum " was launched at the same time as the opening of the "Oiran Train Scenic Park", providing a VR guided theme area, which can experience the fun of immersive and free exploration of high-speed rail stories and railway knowledge without geographical restrictions, and has accumulated 71,000 views since its launched.



Oiran Train Scenic Park



THSR Museum is a key destination for domestic and foreign guests

Promotion of social care

The High-Speed Educational Endowment Program

THSRC has always been committed to supporting disadvantaged groups and has actively collaborated with non-profit organizations. Since 2010, we have partnered with several foundations to implement the "High-Speed Education Endowment Program", which serves as a fund raising platform. All funds raised are then handed over to the annual collaboration unit for coordinated use. To date, THSRC has organized 14 consecutive sessions of activities, with a cumulative donation of over NT\$166 million. This has successfully aided more than 30,000 children in need. In 2023, THSRC and the Children Are Us Foundation raised over NT\$6.85 million to support children with intellectual disabilities in becoming self-sufficient and achieving a better future through study programs.

Annual THSRC Winter Outreach Blood Drive

Since 2012, THSRC has organized a "Annual THSRC Winter Outreach Blood Drive" at its headquarters office and stations at the end of each year. The event has garnered active participation from numerous enthusiastic employees, caring travelers, and the public, adding warmth to society. In 2023, a total of 2,328 people responded to the event, donating 3,503 units of blood. Cumulatively, the event has raised more than ten thousand units of blood, creating a warm atmosphere during the cold winter months when blood inventory levels were insufficient.



2023 High-Speed Educational Endowment Program Press Conference



THSRC employee enthusiastically participate in donate blood

THSRC Smiling Train Program

Since 2009, THSRC has implemented the "THSRC Smiling Train Program", collaborating with non-profit and social welfare organizations worldwide to offer free or discounted HSR train travel to disadvantaged individuals. This initiative has enabled them to experience the convenience and efficiency of HSR service while also providing opportunities to explore the unique customs and beauty of various counties and cities in Taiwan. As of 2023, the "THSRC Smiling Train Program" has aided 863 disadvantaged groups, with a total of 148,504 passengers benefiting from the program.



2023 "THSRC Smiling Train Charity Program" invited the rare disease patients and their family, along with those solitary elderly travel together.

HSR Camps for Talent Cultivation

Since 2008, THSRC has been organizing winter and summer "HSR Camp" activities for students. The camp activities are categorized into four groups based on school age: college, high school vocational, junior high school, and national. Each group conducts one tier during the winter holidays and two tiers during the summer holidays, totaling 12 tiers annually. In 2023, 299 students participated in the events, which were well-received.



Elementary School Students in the 2023 HSR Camp activities

Promotion of ecological restoration

Local Commitment to Pheasant-Tailed Jacana Preservation

To safeguard the habitat and survival of the Pheasant-Tailed Jacana, THSRC has collaborated with government and non-governmental organizations to establish the "Pheasant-Tailed Jacana Ecological Education Park". We not only actively collaborate with experts and scholars, but also seek the participation of volunteers. Over the past 22 years, THSRC has invested over NT\$69.89 million in Pheasant-Tailed Jacana preservation. According to statistics from the Wild Bird Society of Tainan, the number of Pheasant-Tailed Jacana groups in the park's habitat has significantly increased from 9 (including females, males, and fledglings) in a single year in 2000 to 87 in a single year in 2023. The expansion of the Pheasant-Tailed Jacana population's habitat area has resulted in a rise in the number of Pheasant-Tailed Jacanas in the Greater Tainan region from 275 in 2009 to 2,882 in 2023, demonstrating the effectiveness of our promotion of Pheasant-Tailed Jacana preservation. THSRC has not only constructed a "Pheasant-Tailed Jacana Preservation Park" but has also actively promoted ecological education, assisted in the creation of park instruction facilities, and designed display and interactive areas to showcase the effects of restoration efforts. Since its establishment, the "Pheasant-Tailed Jacana Ecological Education Park" has received nearly 285,000 visitors up until 2023. This park not only offers the public an opportunity to learn about the ecology of Pheasant-Tailed Jacanas but has also gained recognition from international ecological conservation organizations, making it a rare and successful example of "coexistence between development and conservation".

Co-planting Beauty – Low-Carbon Sustainable Activity

In response to the 2050 net-zero goal, THSRC has collaborated with the Council of Agriculture's Forest^(Note) Bureau to carry out the "Co-planting Beauty – Low-Carbon Sustainable Activity" since 2022, exerting social influence and demonstrating the power of one plus one is greater than two. On April 21, 2023, the eve of Earth Day, THSRC announced its collaboration with the Hsinchu Forest District Office, Tungshih Forest District Office, and Pingtung Forest District Office of the Forestry Bureau to promote station seedling gifting activities. The aim is to actively enhance people's awareness of green consumption and take advantage of green transportation. A total of 3,600 seedlings of Taiwan's native species, such as *Vaccinium wrightii* Gray, Taiwan camellia, and Chinese holly, were distributed simultaneously at THSR Taoyuan station, Taichung station, and Zuoying station. To reduce the possible waste of traditional plastic pots, seedlings made of environmentally friendly decomposable pulp were used.

In 2022, THSRC collaborated with the Forestry Bureau, Council of Agriculture, Executive Yuan^(Note) to implement a three-year plan aimed at reforesting 1.35 hectares of state-owned forest land in the Xiluo township, Puxin section of Yunlin county, and 5 hectares in Hengchun township, Pingtung county. In early May 2022, the chairman of the board of directors, accompanied by the president and 150 staff members, planted 3,807 saplings of Taiwan's native wind and sand-fixing species, including Taiwanese rain tree, priyangu, neem, *Heliotropium arboreum*, beach naupaka, and *Hibiscus tiliaceus*, at the reforestation site in Yunlin. This initiative was undertaken to demonstrate our unwavering commitment to environmental protection.



The THSRC distributed seedlings to kindergarten children

Note: Since August 1, 2023, it was renamed as "Forestry and Nature Conservation Agency (FANCA), Ministry of Agriculture (MOA)".

"Trash Collection" - Sustainable Beach Action

Since 2016, THSRC has been promoting "Trash Collection" public welfare beach activities, which have received more than 3,774 enthusiastic responses and resulted in the removal of 18,083 kg of marine garbage. Starting in mid-April 2023, THSRC has organized "2023 Environmental Sustainability Action" including public welfare tree planting and beach cleanup activities from Yan Chao Main Workshop, Tainan Guantian Jacana Ecological Education Park, Yangang Village, Taixi Township, Yunlin County, Fanyagou Estuary, Xianxi Township, Changhua County, to Luzhutan Fishing Harbor in Taoyuan City., Gathering all enthusiasm into ESG, THSRC achieved environmental protection concept and low-carbon life's visions. In 2024, a new two tiers "One-Day Farmer" campaign will be added to promote environmentally friendly consumption and enable human live in a sustainable manner.



Chairman of THSRC Yao-Chung Chiang has led the president, the employee welfare committee and more than 150 colleagues to cleanup the beaches and protect the earth for a better living environment

THSRC personnel come together to work for the sustainable future, to implement the concept of environmental protection, and to build enthusiasm for ESG commitment

Appendices

Table 1 THSRC Industry Associations Participation in 2023

Industry Association Participated	Description	Industry Association Participated	Description
International Union of Railways (UIC)	Exchange and collaboration with international railway operators	Taiwan Stock Affairs Association	Exchange in stock affairs-related expertise and regulatory advancement
International High Speed Rail Association	Exchange and collaboration with international high-speed rails	Taiwan Corporate Governance Association	Development and exchange in corporate governance
Chung-Hwa Railway Industry Development Association	Development and promotion of the railway industry	The Institute of Internal Auditors - Chinese Taiwan	Development and promotion of internal audit
Chinese Institute of Transportation	Development and promotion of the railway industry	Computer Audit Association	Development and exchange in corporate governance
Rail Engineering Society of Taiwan	Development and promotion of the railway industry	Association of Industrial Relations, R.O.C.	Development of labor relations and participation in regulatory courses
Supply Management Institute, Taiwan	Exchange in procurement-related expertise and participation in related courses	Accounting Research and Development Foundation	Exchange and promotion of accounting business
Taiwan Railway Economic Development Association	Development and promotion of railway industry	Taiwan Railways Tourism Association	Development of railway tourism and business promotion and exchange
Chinese Society for Quality	Exchange in quality management and participation in related courses	Chinese East Asia Economic Association	Tourism development and business promotion and exchange
Taiwan Visitors Association	Tourism development and business promotion exchanges	Chinese Society of Mechanical Engineers	Development and promotion of the railway industry
Intelligent Transportation Society of Taiwan	Development and promotion of the transportation industry	Center for Corporate Sustainability - Taiwan Institute for Sustainable Energy	Development and promotion of sustainability
Chinese Institute of Engineers	Exchange and promotion of civil engineering technology	Taiwan Contact Center Development Association	Passenger service quality improvement and communication

Table 2 Information on Members of the Board of Directors

Title	Names of Board Members	Basic conditions			Professional competency							Relevant academic experience in the transportation industry	Committee Member		
		Nationality	Gender	Term	Marketing technology	Operation management	Legal Practice	Financial Accounting	Leadership decision-making	Industrial knowledge and operation	Crisis management and international market view		Audit Committee	Remuneration Committee	Project Committee
Chairman	Yao-Chung Chiang	Republic of China	Male	2023/5/25 ~ present	V	V			V	V	V	V			
Independent Director	Kenneth Huang-Chuan Chiu	Republic of China	Male	2023/5/25 ~ present	V	V	V		V	V	V		V	V	
	Tui Tsai		Male	2023/5/25 ~ present	V	V			V	V	V		V	V	V
	Ming-Te Wang		Male	2023/5/25 ~ present	V	V	V		V	V	V		V	V	V
	Pai-Ta Shih		Male	2023/5/25 ~ present	V	V		V	V	V	V		V	V	
	Yung-Cheng (Rex) Lai		Male	2023/5/25 ~ present	V	V			V	V	V	V	V	V	V
Director	Huan-Tung Tseng	Republic of China	Male	2024/1/19 ~ present		V		V	V	V	V				
	Zhen-Jun Yang		Male	2023/5/25 ~ present		V			V	V	V	V			V
	Yu-fen Hong		Female	2023/5/25 ~ present	V	V			V	V	V				
	Wei-Cheng Hsieh		Male	2023/5/25 ~ present		V			V	V	V				V
	Chien-Chih Hwang		Male	2023/8/4 ~ present	V	V			V	V	V				
	Ming-Chou Yang		Male	2023/5/25 ~ present	V	V			V	V	V				
	Shien-Quey Kao		Female	2023/5/25 ~ present	V	V		V	V	V	V				V
	Mao-Hsiung Huang		Male	2023/5/25 ~ present	V	V			V	V	V				V
Yi-ling Wu	Female	2024/1/31 ~ present	V	V				V	V	V					

Table 3 Human Resource Structure (1)

		2021		2022	
		Male	Female	Male	Female
Fixed-Term Contract	Contract Employees	7	29	14	40
	Secondee Employees	0	0	0	0
	Outsourced Employees	0	0	0	0
Total Number of Employees on Fixed-Term Contract		7	29	14	40
Total Number of Employees on Non-Fixed Term Contract		3,067	1,565	3,064	1,560
Percentage of Male-to-Female		65.9%	34.1%	65.8%	34.2%
Total Number of Employees		3,074	1,594	3,078	1,600

Table 3 Human Resource Structure (2)

		2021		2022		
		Male	Female	Male	Female	
Rank	Vice President and above	0.24%	0.04%	0.21%	0.04%	
	Assistance Vice President	0.32%	0.09%	0.30%	0.09%	
	Manager and Deputy Manager	3.42%	0.86%	3.44%	0.88%	
	Section Chief	11.63%	3.13%	12.18%	3.31%	
	General Employees	50.24%	30.03%	49.66%	29.88%	
Education	General and vocational high school and below	3.81%	0.34%	3.72%	0.47%	
	University/Junior College	52.08%	30.31%	52.20%	30.23%	
	Masters	9.67%	3.47%	9.60%	3.48%	
	PhD	0.30%	0.02%	0.28%	0.02%	
Other Diversity Indicators	Indigenous Employees	0.86%	0.21%	0.81%	0.26%	
	Disabled Employees	0.73%	0.34%	0.77%	0.47%	
Age	Management Level	Under 30 Years Old	0.00%	0.00%	0.00%	0.00%
		30-50 Years Old	2.19%	0.75%	1.52%	0.62%
		Over 50 Years Old	2.03%	0.21%	2.63%	0.34%
	Non-Management Level	Under 30 Years Old	12.19%	9.47%	8.04%	5.28%
		30-50 Years Old	43.29%	22.39%	45.02%	25.89%
		Over 50 Years Old	6.15%	1.33%	8.59%	2.07%

Notes: 1. The management level is defined as supervisors of section chief level and above
 2. The calculation formula is the number of people in the particular group/total labor force
 3. Due to the rounding of the presented data, the sum of the data may not be exactly 100%.

Table 4 Statistics on New Employees

		2021				2022			
		Male		Female		Male		Female	
		Number	proportion	Number	proportion	Number	proportion	Number	proportion
Category	Train Staff	6	0.13%	3	0.06%	0	0.00%	0	0.00%
	Station Staff	34	0.73%	32	0.69%	33	14.86%	59	26.58%
	Operation Control Personnel	0	0.00%	0	0.00%	8	3.60%	0	0.00%
	Train Driver	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	Maintenance Personnel	48	1.03%	1	0.02%	76	34.24%	2	0.90%
	Others	21	0.45%	10	0.22%	21	9.46%	23	10.36%
Age	Under 30 Years Old	88	1.89%	37	0.79%	97	43.69%	64	28.83%
	30-50 Years Old	21	0.45%	8	0.17%	40	18.02%	19	8.56%
	Over 50 Years Old	0	0.00%	1	0.03%	1	0.45%	1	0.45%
Total		109	2.34%	46	0.99%	138	62.16%	84	37.84%

Table 5 Statistics on Employee Turnover

		2021				2022			
		Male		Female		Male		Female	
		Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Category	Train staff	0	0.00%	8	0.17%	2	0.04%	7	0.15%
	Station staff	6	0.13%	9	0.19%	13	0.28%	17	0.36%
	Operation Control Personnel	4	0.09%	0	0.00%	5	0.11%	1	0.02%
	Train Driver	1	0.02%	0	0.00%	3	0.06%	0	0.00%
	Maintenance Personnel	40	0.86%	0	0.00%	79	1.69%	2	0.04%
	Others	30	0.64%	14	0.30%	27	0.58%	12	0.26%
Age	Under 30 Years Old	26	0.56%	6	0.13%	50	1.07%	12	0.26%
	30-50 Years Old	36	0.77%	20	0.43%	64	1.37%	26	0.56%
	Over 50 Years Old	19	0.41%	5	0.11%	15	0.32%	1	0.02%
Total		81	1.74%	31	0.66%	129	2.76%	39	0.83%

Note: The turnover rate is calculated as: Annual turnover/Total number of employees at the end of the period.

Table 6 Training Hours

Years	2021			2022		
Gender	Male	Female	Total	Male	Female	Total
All Employees at THSRC						
Average Number of Training Hours Per Capita	173.1	44.2	119.0	72.0	38.4	60.5
Average Number of Training Hours Per Training Session	9.0	3.2	7.4	2.6	1.7	2.3
Average class Hours for Different Ranks						
Vice President and above	13.4	11.6	13.1	9.4	14.4	10.2
Assistance Vice President	34.3	44.1	36.3	32.7	18.2	29.4
Manager and Deputy Manager	42.8	33.3	40.9	39.0	27.7	36.7
Section Chief	90.8	26.9	77.2	53.6	35.9	49.9
General Employees	202.9	39.4	142.0	79.3	39.1	64.2
Average Number of class Hours for Different Categories						
Train Staff	93.4	45.8	55.5	19.3	22.9	22.1
Station Staff	77.5	49.5	59.7	59.9	60.2	60.1
Operation Control Personnel	150.8	215.6	164.4	145.9	90.2	134.5
Train Drivers	188.3	19.3	175.3	113.0	59.0	108.7
Maintenance Personnel	290.4	160.8	290.1	90.0	63.8	89.9
Others	42.6	25.4	35.9	33.0	24.3	29.6

GRI Standards

Disclosure	Corresponding to Chapter or Subchapter	Page No	Supplementary Information
GRI 2: General Disclosure 2021			
2-1 Organizational Details	• About this Report	02	
2-2 Entities included in organization's sustainability reporting			
2-3 Reporting period, frequency and contact point			
2-4 Restatements of information			
2-5 External Assurance	• About this Report \ Appendices	02 \ 79	
2-6 Activities, Value Chains and Other Business Relationships	• Operating Bases and Services • Ticket Purchase Channels • Inclusive and Equal Employment	15 40 65	
2-7 Employees	• Inclusive and Equal Employment	65	
2-8 Workers who are not employees			
2-9 Governance structure and composition	• Corporate Governance Structure and Committees	65	
2-10 Nomination and selection of the highest governance body			
2-11 Chair of the highest governance body			
2-12 The highest governance body in overseeing the management of impacts			
2-13 Head of impacts management			
2-14 The highest governance body in sustainability reporting			
2-15 Conflict of Interest	• Corporate Governance Structure and Committees	19	concerning "b.ii. cross-shareholding with suppliers or other stakeholders" \ "b.iii. the existence of controlling shareholders" \ "b.iv. Interested groups and their relationships, transactions and outstanding balances", please details " Annual report of the shareholders' meeting " and " Annual financial statements "
2-16 Communication of critical concerns	• Stakeholder Identification and Communication	06	
2-17 Collective knowledge of the highest governance body	• Corporate Governance Structure and Committees	19	
2-18 Evaluation of the performance of the highest governance body			
2-19 Remuneration Policies			

Disclosure	Corresponding to Chapter or Subchapter	Page No	Supplementary Information
2-20 Process to determine remuneration	• Corporate Governance Structure and Committees • Complete and Perfect Salary and Benefit System	19 66	
2-21 Annual Total Compensation Ratio	• Complete and Perfect Salary and Benefit System	66	
2-22 Statement on sustainable development strategy	• Message from the Chairman • Message from the President	03 04	
2-23 Policy commitments	• Ethical Management and Anti-Corruption	24	
2-24 Embedding policy commitments	• Human Rights Policy and Employee Care	72	
2-25 Procedures to remediate negative impacts	• Human Rights Policy and Employee Care	72	
2-26 Mechanisms for seeking advice and raising concerns	• Ethical Management and Anti-Corruption • Human Rights Policy and Employee Care	24 72	
2-27 Compliance with laws and regulations	• Legal Compliance	24	
2-28 Membership associations	• Industry Exchange • Appendices Table 1	48 76	
2-29 Approach to stakeholder engagement	• Stakeholder identification and communication	06	
2-30 Collective bargaining agreement	• Human Rights Policy and Employee Care	72	
GRI 3: Material Topics 2021			
3-1 Process to determine material topics	• Identification and Responses to Material Topics	08	A list of "d. Describe actions taken to manage material topics and associated shocks", "e. Report information on tracking the effectiveness of actions taken", "f. Describe how agreements with stakeholders affect actions taken, and how actions are effective", are provided in this section and indexed to the corresponding sections of each material theme
3-2 List of material topics			
3-3 Management of material topics			

Disclosure	Material Topics	Chapter	Page No	Remark
GRI 201: Economic Performance 2016				
201-1 Direct economic value generated and distributed	Enterprise Governance and Operational Performance	• Operational performance	25	
201-2 Financial implications and other risks and opportunities due to climate change		• Climate change mitigation and adaptation	55	
201-3 Defined benefit plan obligations and other retirement plans		• Inclusive and Equal Employment	65	
201-4 Financial assistance received from government		• Operational Performance • Stakeholder identification and communication	25 06	
GRI 202: Market Presence 2016				
202-1 Ratios of standard entry level wage by gender compared to local minimum wage	Talent recruitment and development	• Operating Bases and Services • Inclusive and equal employment • Complete and Perfect Salary and Benefit System	15 65 66	
202-2 Proportion of senior management hired from the local community		• Inclusive and Equal Employment	65	
GRI 204: Procurement Practices 2016				
204-1 Proportion of spending on local suppliers	Sustainable supply chain management	• Operating Bases and Services • Localized Supply Chain	15 49	
GRI 205: Anti-corruption 2016				
205-1 Operations assessed for risks related to corruption	Enterprise Governance and Operational Performance	• Ethical Management and Anti-Corruption	24	
205-2 Communication and training about anti-corruption policies and procedures				
205-3 Confirmed incidents of corruption and actions taken				
GRI 302: Energy 2016				
302-1 Energy consumption within the organization	Resource use and management	• Low-carbon Train Operation and Environmental Sustainability	54	
302-2 Energy Consumption Outside of the Organization				
302-3 Energy intensity				
302-4 Reduction of energy consumption				
302-5 Reductions in energy requirements of products and services				
GRI 303: Water and Effluents 2018				
303-1 Interactions with water as a shared resource	Resource use and management	• Low-carbon Train Operation and Environmental Sustainability	54	
303-2 Management of water discharge-related impacts				
303-3 Water withdrawal				
303-4 Water discharge				
303-5 Water consumption				

Disclosure	Material Topics	Chapter	Page No	Remark
GRI 305: Emissions 2016				
305-1 Direct (Scope 1) GHG emissions	Climate change mitigation and adaptation	• Low-carbon Train Operation and Environmental Sustainability	54	The carbon emissions for 2023 are expected to be completed by the end of 2024, and the relevant data will be updated in the 2024 Taiwan High Speed Rail Sustainability Report
305-2 Energy Indirect (Scope 2) GHG emissions				
305-3 Other indirect (Scope 3) GHG emissions				
305-4 GHG emissions intensity				
305-5 Reduction of GHG emissions	Ecological and Community Impact Management			N/A
305-6 Emissions of ozone-depleting substances (ODS)				
305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions				
GRI 306: Effluents and Waste 2016				
306-1 Volume of water discharged by water quality and discharge destination	Resource use and management	• Low-carbon Train Operation and Environmental Sustainability	54	
306-2 Waste by category and disposal method				
306-3 Severe Leakage				
306-4 Waste transportation				
306-5 Water bodies affected by drainage and/or surface runoff				
GRI 401: Employment 2016				
401-1 New employee hires and employee turnover	Employee care and labor protection	• Inclusive and Equal Employment	65	
401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	Talent recruitment and development	• Inclusive and Equal Employment	65	
		• Complete and Perfect Salary and Benefit System	66	
401-3 Parental leave		• Complete and Perfect Salary and Benefit System • Human rights policies and employee care	66 72	
GRI 402: Labor / Management Relations 2016				
402-1 Minimum notice periods regarding operational changes	Employee care and labor protection	• Human rights policies and employee care	72	
	Talent recruitment and development			
GRI 403: Occupational Health and Safety 2018				
403-1 Occupational Health and Safety Management System	Employee care and labor protection	• Human rights policies and employee care	72	
403-2 Hazard Identification, Risk Assessment and incident Investigation				
403-3 Occupational Health Services				
403-4 Worker Participation, Consultation and Communication on Occupational Health and Safety				
403-5 Worker Training on Occupational Health and Safety		• Occupational Safety and Health	74	
403-6 Promotion of worker health	Talent recruitment and development	• Human rights policies and employee care	72	
403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships				
403-8 Workers covered by an occupational health and safety management system				
403-9 Work-related injuries				
403-10 Work-related ill health				
		• Occupational Safety and Health	74	

Disclosure	Material Topics	Chapter	Page No	Remark
GRI 404: Training and Education 2016				
404-1 Average hours of training per year per employee	Talent recruitment and development	• Comprehensive Employee Training	68	
404-2 Programs for upgrading employee skills and transition assistance programs				
404-3 Percentage of employees receiving regular performance and career development reviews		• Talent Management and Motivation	71	
GRI 405: Diversity and Equal Opportunity 2016				
405-1 Diversity of governance bodies and employees	Enterprise Governance and Operational Performance Talent recruitment and development	• Corporate Governance Structure and Committees	19	
		• Complete and Perfect Salary and Benefit System	66	
405-2 Ratio of basic salary and remuneration of women to men		• Inclusive and Equal Employment	65	
		• Complete and Perfect Salary and Benefit System	66	
GRI 407: Freedom of Association and Collective Bargaining 2016				
407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Employee care and labor protection	• Human rights policies and employee care	72	
GRI 414: Supplier Social Assessment 2016				
414-1 New suppliers that were screened using social criteria	Sustainable supply chain management	• Supplier Negotiation	48	
414-2 Negative social impacts in the supply chain and actions taken		• Supplier management	48	
	• Supplier Negotiation			
GRI 416: Customer Health and Safety 2016				
416-1 Assessment of the health and safety impacts of product and service categories	Quality of Service and customer relationship management	• Safety and Quality service	41	
416-2 Incidents of non-compliance concerning the health and safety impacts of products and services		• Legal compliance	24	
GRI 418 : Customer Privacy 2016				
418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	Privacy and Information Security Management	• Information Security Management	42	
Customized material topic				
	Transportation safety management	• Transportation - Professional Transportation	27	
	Technological innovation	• Technology - Innovative technology	37	

Disclosure of Sustainability Accounting Standards Board (SASB)

Metrics	Unit Of Measure	Code	2023	Other Explanations
Activity Metrics				
Number of carloads transported	Number	TR-RA-000.A	73,086,668	Due to the nature of THSRC's business, transportation services are mainly measured by number of people. Therefore, the data provided here is the total number of passengers who took THSR trains in 2023.
Amount of postal services transported	Number	TR-RA-000.A	N/A	Due to the nature of THSRC's business, transportation services are mainly measured by number of people. The contract signed with the post office is calculated based on the number of passengers, so there are no data available on the volume of postal services.
Number of intermodal units transported	Number	TR-RA-000.B	N/A	Due to the nature of THSRC's business, transportation services are mainly measured by number of people, and there are no transportation services for goods, so this indicator is not applicable.
Track miles Track miles include the total length of the route available for the operation of the trains, and include multi-track routes for the calculation. For example, if there are two tracks for each mile of route, it should be counted as 2 track miles	Miles	TR-RA-000.C	The total length of track miles is 436.077 miles (701.766 kilometers in total for the northbound and southbound mainline of THSRC)	This data calculated here covers the mainline and the sub-line, and the calculation unit is Miles.
Revenue Ton Mile (RTM) Revenue per ton mile (RTM) is defined as the revenue earned from transporting one metric ton of cargo one kilometer. Revenue in metric ton mile (RTM) is calculated as the number of transport miles per stage * revenue per metric ton of cargo	Amount	TR-RA-000.D	NT\$6.15	Due to the nature of THSRC's business, transportation services are mainly measured by number of people, and there is no transportation of goods. Therefore, this indicator is presented as "revenue per passenger-mile" , which is calculated as follows: * NT\$48,074,881,000 in ticketing revenue in 2023 * 73,086,668 passengers in 2023 * The average travel distance per passenger in 2023 was 172 kilometers * Ticketing revenue per passenger = Ticketing revenue/ Number of passenger = NT\$657.78 * Revenue per passenger traveling 1 kilometer = Ticketing revenue per passenger/Average travel distance per passenger = NT\$3.82 * Revenue per passenger traveling 1 mile = Revenue per passenger traveling 1 kilometer/0.6214 = NT\$6.15
Number of employees	Number	TR-RA-000.E	4,746	THSRC employees calculated here cover contract employees, secondee employees, outsourced employees and employees on non-fixed term contracts.

Metrics	Unit Of Measure	Code	2023	Other Explanations
Greenhouse Gas Emissions				
Gross global Scope 1 emissions	metric tons CO ₂ e	TR-RA-110a.1	1,268.73 metric tons CO ₂ e	THSRC employees calculated here cover contract employees, secondee employees, outsourced employees and employees on non-fixed term contracts. In 2023, THSRC completed the 2022 greenhouse gas inventory and verification of the whole company (Scope 1 and 2) and supply chain (Scope 3), with an inventory coverage rate of 100%, including 12 stations, 5 depots, headquarters office (HQ), Taoyuan Operation Management Center Building (OMC) and main line (train and roadside equipment), and obtained ISO 14064-1:2018 verification statement in September 2023. The current calculation method for company-wide GHG emissions in 2023 is in line with ISO 14064-1, but it is only an internal estimation and does not cover the escape of refrigerant, welding rod, and CO ₂ fire extinguisher, and it is expected that the data will be confirmed and adjusted after obtaining ISO 14064-1:2018 verification in December 2024. For more information on greenhouse gas emissions, please refer to the subchapter entitled " Low-carbon Train Operation and Environmental Sustainability " of the report.
Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	-	TR-RA-110a.2	The electricity which is a Scope 2 emission, using to carry passengers is the major energy consumption by THSRC. The direct GHG emissions in scope 1 mainly come from the use of gasoline and diesel fuel and the escape of airconditioning refrigerants, which are used for engineering maintenance vehicles and emergency generators at the stations. The overall ratio is relatively low, accounting for only 1% of the total energy consumption, so there is no further emission reduction target for Scope 1 However, in accordance with the Greenhouse Gas Reduction and Management Act, the Company shall follow the "Periodic Regulatory Goals of the Greenhouse Gas Emissions" approved by the government and cooperate with the competent authorities in rail transportation and station operations in pursuing greenhouse gas reduction policies and setting reduction targets. The current target is to set the annual carbon reduction rate at greater than 1.5% by 2023, using the amount of carbon dioxide emissions per passenger-kilometer as an indicator.	For more information on greenhouse gas emissions, please refer to the subchapter entitled " Low-carbon Train Operation and Environmental Sustainability " of the report.
(1) Total fuel consumed (2) percentage renewable	Gigajoules (Gj) Percentage (%)	TR-RA-110a.3	(1) 2,318,657.87 Gj (2) 0.03 (%)	(1) The calculation of total energy use by THSRC covers the total energy used directly during the reporting period. The data is sourced from the energy product unit heating value table announced in the Energy Statistics Handbook 2016 of the Bureau of Energy (2) The proportion of renewable energy to total energy use by THSRC is calculated as (Renewable energy use/Total energy use), which is disclosed in percentage (%) as the unit For more information on energy use, please refer to the subchapter entitled " Low-carbon Train Operation and Environmental Sustainability " of the report.
Air quality				
(1) Total emissions of air pollutants (2) NOx (excluding N2O) (3) Particulate material (PM10)	Metric tons	TR-RA-120a.1	(1) 8.33 metric tons (2) 0.00 metric tons (3) 0.04 metric tons	(1) The air pollutants disclosed by THSRC cover the air pollutants directly emitted in the course of business operations, including stationary and mobile pollution sources, production plants, office buildings, and transportation fleets, which are calculated using the mass balance method (2) The emission of NOx is mainly caused by the high-temperature combustion of vehicles, thermal power plants and boilers, and THSRC uses externally purchased or acquired electricity during the entire operation of the trains, so there is no emission of nitrogen oxides (3) The data of particulate materials (PM10) in 2022 was sourced from the amount reported in the "Stationary Source Air Pollution Control Fees and Emissions Reporting Integrated Management System" of the Environmental Protection Administration. The calculation method is activity intensity x (1 - control efficiency %) x emission factor For more information on air quality, please refer to the subchapter entitled " Air Pollution Management " of the report.

Metrics	Unit Of Measure	Code	2023	Other Explanations
Employee Health and Safety				
(1) Total Recordable Incident Rate (TRIR) (2) Fatality rate (3) Near Miss Frequency Rate (NMFR)	NTD	TR-RA-320a.1	(1) 0.15 (2) 0 (3) 2.29	<p>The indicator calculated here covers THSRC's employees and contractors. The calculation formula of the indicator is as follows:</p> <p>* Total Recordable Incident Rate (TRIR) is calculated as: (Number of recordable incident/Total working hours) × 200,000The 2023 data is calculated as: (7/9,365,416)*200000=0.15</p> <p>* Fatality rate of work-related injuries is calculated as: (Number of recordable fatalities/Total working hours) × 200,000The data for 2023 is calculated as: (0/9,365,416)*200000=0</p> <p>* Near Miss Frequency Rate (NMFR) is calculated as: (Count of near miss incidents/Total man-hours) × 200,000 The data for 2023 is calculated as (107/9,365,416)*200,000=2.29</p>
Competitive Behavior				
Total amount of monetary losses as a result of legal proceedings associated with anticompetitive behavior regulations	NTD	TR-RA-520a.1	0	The Company has no legal proceedings related to the anti-competitive conduct provisions in 2023. High-speed rail transportation is a key infrastructure in Taiwan. THSRC plays a role as a service provider. For a long time, legal compliance has been regarded as a material topic of sustainable development. We not only formulate legal compliance promotion plans, but also track legal compliance risks through quarterly legal compliance representative meetings, and regularly report the tracking results to the Board of Directors to minimize regulatory risks. For more information on legal compliance, please refer to the subchapter titled " Sustainable Governance and Ethical Corporate Management " of the report.
Accident and Safety Management				
Number of Accidents and Incidents	Number	TR-RA-540a.1	In 2023, there was 1 general traffic accident of a maintenance engineering vehicle.	The statistical standards for the number of accidents and incidents refer to the definitions in Chapter 6 of the "Railway Rules" , and the scope of disclosure covers collisions, derailments, fires, railway crossings, casualties, equipment damage, operation interruptions, and other accidents. In 2023, there were no major accidents on THSRC, and there was a general traffic accident involving a maintenance engineering vehicles, with no injuries on site and no impact on the operation. After subsequent review, improvement measures were adopted that the operation of the maintenance engineering vehicle in the construction area should be assigned to qualified personnel to assist in the route confirmation. The vehicles movement plan should include the information on turnouts in the work area, strengthening effectiveness of inspection and monitoring through daily quality communication and reconfirmation immediately.Also, we conduct risk control through discussion and communication to strengthen safety and mutual aid culture. THSRC has always regarded operational safety as its highest responsibility since it began operations and has consistently regarded safety management as a material topic of sustainable development. We have not only built an operational safety management system with risk management as the backbone, but also review the implementation of safety management through the Safety Committee to ensure operational safety. For more information on operational safety and risk management, please refer to the subchapter entitled " Safety Services and Responsible Transportation " of the report.
(1) Number of accident releases (2) nonaccident releases (NARs)	Number	TR-RA-540a.2	(1) 0 (2) 0	THSRC mainly provides human-based transportation services. Hazardous substances are not handled and transported in its general operation and transportation process, so this indicator is not applicable.
Number of Federal Railroad Administration (FRA) Recommended Violation Defects	Number	TR-RA-540a.3	7	The proposed calculation of the number of violations and failures refers to the provisions of Article 47 of the "Implementation Measures for the Supervision of Local Private and Special Railways." The Railway Bureau of the Ministry of Transportation and Communications regularly inspects the violations and failures of high-speed railways, including the organizational status, operating status, financial status, engineering status, driving safety management status, locomotive and vehicle maintenance status, route construction and maintenance status, and other related matters. In 2023, the Railway Bureau conducted an annual periodic inspection (proposed four areas for improvements) and an interim inspection (proposed three areas for improvements). For more information on quality management, please refer to the subchapter entitled " Convenience, Attentiveness, and Maintaining Relationships " of the report.
Frequency of internal railway integrity inspections (Number of inspections per week × Inspected track miles / Total main track miles)	%	TR-RA-540a.4	50%	This indicator is calculated on the basis of (Number of inspections per week × Inspected track miles)/(Total main track miles). In 2023, a track length of 175.442 kilometers of THSRC were inspected twice a week (including northbound and southbound main-line tracks). The total main track length is 701.766 kilometers, so by introducing the calculation formula, the railway integrity frequency (Inspection twice a week × 175.442 kilometers) / (701.766 kilometers) = 50%. For more information on operational safety and risk management, please refer to the subchapter entitled " Safety Services and Responsible Transportation " of the report.

Comparison of the "Taiwan Stock Exchange Corporation Rules Governing the Preparation and Filing of Sustainability Reports by TWSE Listed Companies"

Item	Corresponding Chapter or Subchapter
The content of this report shall cover the risk assessment of the relevant environmental, social, and corporate governance, and set the relevant performance indicators to manage the material topics identified	<ul style="list-style-type: none"> • Sustainable Governance and Ethical Corporate Management
Corporate governance of climate-related risks and opportunities; actual and potential climate-related shocks; methods to identify, assess and manage climate-related risks; and indicators and targets for assessing and managing climate-related issues	<ul style="list-style-type: none"> • Low-carbon Train Operation and Environmental Sustainability
Information on salaries of full-time non-supervisory employees	<ul style="list-style-type: none"> • Nurturing Talent and Value Cultivation

Comparison of the "Corporate Sustainable Development Best Practice Principles for TWSE/GTSM Listed Companies"

Items	Corresponding Chapter or Subchapter
Chapter I General Principles	<ul style="list-style-type: none"> • Sustainability Strategies and Goals
Chapter II Implementing Corporate Governance	<ul style="list-style-type: none"> • Sustainable Governance and Ethical Management
Chapter III Fostering a Sustainable Environment	<ul style="list-style-type: none"> • Low-carbon Train Operation and Environmental Sustainability
Chapter IV Preserving Public Welfare	<ul style="list-style-type: none"> • Partner Relationship Management and Local Supply • Nurturing Talent and Value Cultivation • Carrying for Society and Developing Local Area
Chapter V Enhancing corporate sustainability information disclosure	<ul style="list-style-type: none"> • About this Report
Chapter VI Supplementary Provisions	<ul style="list-style-type: none"> • Identification and Responses to Material Topics

Statement on Greenhouse Gas Emission Inspection

Statement TW2300507GG



Greenhouse Gas Verification Statement

The inventory of Greenhouse Gas emissions in year 2022 of **TAIWAN HIGH SPEED RAIL CORPORATION**
13F-15F, No. 86, Jingmao 2nd Rd., Neigong Dist., Taipei City 110, Taiwan (R.O.C.)

has been verified in accordance with ISO 14064-3:2006 as meeting the requirements of **ISO 14064-1:2018**

Direct emissions: **6,316,595 tonnes of CO₂e**
Indirect emissions: **411,189,658 tonnes of CO₂e**
Direct emissions and indirect emissions: **417,503,377 tonnes of CO₂e**

Authorised by: *Stephan Pao*
Knowledge Deputy General Manager
Date: 28 September 2023
Version: 1

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This Statement is not valid without the full verification scope, objectives, criteria and findings available on the Statement. Page 1 of 10

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The emission of each category is described as below: Unit: tonnes of CO₂e


Reporting Description	GHG Emissions
Direct emissions	6,316,595
Transportation	309,205,647
Indirect emissions	411,189,658
Products used by an organization	80,337,376
Associated with the sale of products from the organization	5,144,824
Other sources	NA
Direct emissions and indirect emissions	417,503,377

The emission of each site is described as below: Unit: tonnes of CO₂e

Site	Direct emissions	Indirect emissions	Total GHG emissions
Nangang Station	13,702	12,133,407	12,147,109
Keelung Station	1,148	10,463,702	10,464,850
Keelung Depot	86,367	8,899,373	8,985,740
Keelung Station	1,513	7,308,403	7,310,916

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Site	Direct emissions	Indirect emissions	Total GHG emissions
Hongshu Station	6,745	4,135,131	4,141,876
Maoli Station	0,931	2,395,908	2,396,839
Taichung Station	61,901	11,861,303	11,923,218
Changhua Station	51,992	2,626,847	2,678,839
Yulin Station	1,251	2,022,701	2,023,952
Chiayi Station	444,738	5,261,558	5,706,296
Tainan Station	4,724	4,398,235	4,402,960
Zuying Station	176,146	11,108,831	11,284,946
Lida Depot	116,268	1,057,378	1,173,642
Wuri Depot	425,892	2,583,193	3,009,083
Taipei Depot	29,933	632,382	662,315
Yanchao Main Workshop	2,023,910	3,194,131	7,217,653
Zuying Depot	2,851,043	4,194,867	7,045,913
Taipei OMC Building	0,378	3,881,083	3,881,468
Taipei Headquarters	7,756	11,572,212	11,580,016
Main Line Train and Trackside Equipment	1,814	296,688,850	296,690,536

This Statement is not valid without the full verification scope, objectives, criteria and findings available on the Statement. Page 3 of 10

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SGS has been contracted by C. C. Sunan ESG Solution Co., Ltd. (hereinafter referred to as "C. C. Sunan"), 13F-15F, No. 12, Zhonghua Rd., Neigong Dist., Taipei City 11022, Taiwan (R.O.C.) for the verification of direct and indirect Greenhouse Gas emissions in accordance with:

ISO 14064-3:2006

As provided by TAIWAN HIGH SPEED RAIL CORPORATION (hereinafter referred to as "TAIWAN HIGH SPEED RAIL"), 13F-15F, No. 86, Jingmao 2nd Rd., Neigong Dist., Taipei City 110, Taiwan (R.O.C.), in the GHG Assertion in the form of GHG report covering GHG emissions of the period 01 January 2022 to 31 December 2022.

Roles and responsibilities

The management of TAIWAN HIGH SPEED RAIL is responsible for the organization's GHG information system, the development and maintenance of records and reporting procedures in accordance with that system, including the calculation and determination of GHG emissions information and the reported GHG emissions.

It is SGS's responsibility to express an independent GHG verification opinion on the GHG emissions as reported by the organization for the period 01 January 2022 to 31 December 2022.

SGS conducted a stand-alone verification of the provided GHG assertion against the provisions of ISO 14064-3:2006, ISO 14064-2:2006 in the period 24 July 2023 to 14 August 2023. The verification was based on the verification scope, objectives and criteria as agreed between C. C. Sunan and SGS on 01 November 2022.

Level of Assurance


The level of assurance for category 1 and category 2 is agreed that it is reasonable assurance. Category 3 is category 3, and that of limited assurance.

Scope

C. C. Sunan has commissioned an independent verification by SGS. Based on reported GHG emissions of TAIWAN HIGH SPEED RAIL arising from the high-speed rail transportation service activities, to establish conformance with ISO 14064:2018 principles within the scope of the verification as outlined below.

This Statement is not valid without the full verification scope, objectives, criteria and findings available on the Statement. Page 4 of 10

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This engagement covers verification of emission from anthropogenic sources of greenhouse gases included within the organization's boundary and is based on ISO 14064-3:2006.

- Title or description activities: GHG verification for TAIWAN HIGH SPEED RAIL in year 2022.
- Location/boundary of the activities:

Location	Address
Nangang Station	No. 138-1, Wu Kong Rd., Neigong Dist., Taipei City 11018, Taiwan (R.O.C.)
Taipei Station	No. 3, Keelung Rd., Zhongzheng District, Taipei City 10023, Taiwan (R.O.C.)
Keelung Station	No. 7, Keelung Blvd., Keelung City, Hualien City 99001, Taiwan (R.O.C.)
Keelung Depot	No. 6, Sec. 1, Guoshu Rd., Keelung City, Hualien City 99001, Taiwan (R.O.C.)
Hongshu Station	No. 4, Guoshu Rd., Keelung City, Hualien City 99001, Taiwan (R.O.C.)
Maoli Station	No. 206, Guoshu 3rd Rd., Hualien District, Hualien County 99006, Taiwan (R.O.C.)
Taichung Station	No. 8, Zhongyuan 2nd Road, Neigong 3, Sanmin Village, Wuchi Township, Taichung County 41610, Taiwan (R.O.C.)
Changhua Station	No. 86, Sec. 2, Zhongyuan Rd., Taichung Township, Changhua County 50023, Taiwan (R.O.C.)
Yulin Station	No. 301, Zhongyuan E. Rd., Hualien Township, Yulin County 63007, Taiwan (R.O.C.)
Chiayi Station	No. 169, Guoyu W. Road, Tainan 11, Tainan City, Chiayi City 63001, Taiwan (R.O.C.)
Tainan Station	No. 100, Guoshu Blvd., Guoshu Dist., Tainan City 71016, Taiwan (R.O.C.)
Zuying Station	No. 105, Guoshu Rd., Tainan District, Keelung City 61310, Taiwan (R.O.C.)
Lida Depot	No. 11, Lane 15A, Sec. 1, Keelung Rd., Zhulien City, Hualien County 99004, Taiwan (R.O.C.)
Wuri Depot	No. 120, Chingyuan Rd., Wuri Dist., Taichung City 41418, Taiwan (R.O.C.)
Taipei Depot	No. 300, Keelung Rd., Keelung City, Chiayi County 61201, Taiwan (R.O.C.)
Yanchao Main Workshop	No. 509, Guoshu-gongchang Rd., Yanchao Dist., Keelung City 99006, Taiwan (R.O.C.)
Zuying Depot	No. 109, Guoshu Rd., Hualien Dist., Keelung City 61453, Taiwan (R.O.C.)
Taipei OMC Building	No. 2, Sec. 1, Guoshu Rd., Keelung Village, Zhong Dist., Tainan City 70001, Taiwan (R.O.C.)
Taipei Headquarters	13F-15F, No. 12, Zhonghua 2nd Rd., Neigong District, Taipei City 11022, Taiwan (R.O.C.)

This Statement is not valid without the full verification scope, objectives, criteria and findings available on the Statement. Page 5 of 10

Statement TW2300507GG, continued



Location	Address
Main Line Train and Trackside Equipment	The total length of the THSR operating route from Nangang to Keelung is 350 kilometers.

- Physical infrastructure, activities, technologies and processes of the organization: The high-speed rail transportation service.
- GHG sources, sinks and/or materials included: Sources as presented in the inventory spreadsheet provided by TAIWAN HIGH SPEED RAIL.
- Types of GHGs included: CO₂, CH₄, N₂O, HFCs, PFCs, SF₆, NF₃.
- The IPCC 2019 GWP values are applied in this inventory.
- Emission factor:
 - Direct emissions: Greenhouse Gas Emission Factor Table (G.G.4), EPA.
 - Indirect emissions:
 - Electricity emission factor is 0.495 kgCO₂e/kWh (Announced by Bureau of Energy, Ministry of Economic Affairs in 2023).
 - The secondary database has Carbon Footprint Information Platform.
- GHG information for the following period was verified: 01 January 2022 to 31 December 2022.
- The version of inventory sheet: 15 August 2023.
- The version of GHG assertion: 15 August 2023.
- Intended user of the verification statement: Private.

Objective

The purpose of this verification exercise are, by review of objective evidence, to independently review:

- Whether the GHG emissions are as declared by the organization's GHG assertion.
- The data reported are accurate, complete, consistent, transparent and free of material error or omission.

Criteria

Criteria against which the verification assessment is undertaken are the principles of ISO 14064-1:2018.

This Statement is not valid without the full verification scope, objectives, criteria and findings available on the Statement. Page 6 of 10

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Materiality

The materiality required of the verification was considered by SGS to 9%, based on the needs of the intended user of the GHG Assertion.

Conclusion


TAIWAN HIGH SPEED RAIL provided the GHG assertion based on the requirements of ISO 14064-1:2018. The GHG information for the period 01 January 2022 to 31 December 2022 declaring emissions of 417,503,377 metric tonnes of CO₂e equivalent and 0,000 metric tonnes of direct CO₂e emissions from the combination of sources are verified by SGS to a reasonable level of assurance, considered with the agreed verification scope, objectives and criteria.

The emission of each category is described as below: Unit: tonnes of CO₂e

Reporting Description	GHG Emissions
Direct emissions	6,316,595
Imported energy	309,205,647
Transportation	3,702,913
Indirect emissions	411,189,658
Products used by an organization	80,337,376
Associated with the sale of products from the organization	5,144,824
Other sources	NA
Direct emissions and indirect emissions	417,503,377

This Statement is not valid without the full verification scope, objectives, criteria and findings available on the Statement. Page 7 of 10

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The emission of each site is described as below: Unit: tonnes of CO₂e

Site	Direct emissions	Indirect emissions	Total GHG emissions
Nangang Station	13,702	12,133,407	12,147,109
Taipei Station	1,148	10,463,702	10,464,850
Keelung Station	86,367	8,899,373	8,985,740
Tainan Station	1,511	7,208,403	7,210,916
Hongshu Station	6,745	4,135,131	4,141,876
Maoli Station	0,931	2,395,908	2,396,839
Taichung Station	61,901	11,861,303	11,923,218
Changhua Station	51,992	2,626,847	2,678,839
Yulin Station	1,251	2,022,701	2,023,952
Chiayi Station	444,738	5,261,558	5,706,296
Tainan Station	4,724	4,398,235	4,402,960
Zuying Station	176,146	11,108,831	11,284,946
Lida Depot	116,268	1,057,378	1,173,642
Wuri Depot	425,892	2,583,193	3,009,083
Taipei Depot	29,933	632,382	662,315
Yanchao Main Workshop	2,023,910	3,194,131	7,217,653
Zuying Depot	2,851,043	4,194,867	7,045,913
Taipei OMC Building	0,378	3,881,083	3,881,468
Taipei Headquarters	7,756	11,572,212	11,580,016
Main Line Train and Trackside Equipment	1,814	296,688,850	296,690,536

This Statement is not valid without the full verification scope, objectives, criteria and findings available on the Statement. Page 8 of 10

Statement TW2300507GG, continued



SGS's approach is risk based, drawing on an understanding of the risks associated with reporting GHG emissions information and the controls in place to mitigate them. Our assessment includes assessment, on a best basis, of evidence relevant to the amounts and disclosures in relation to the organization's reported GHG emissions.

We planned and performed our work to obtain the information, explanations, and evidence that we considered necessary to provide a reasonable level of assurance that the GHG emissions of category 1 and category 2, and limited level of assurance of category 3 for category 3 for the period 01 January 2022 to 31 December 2022 are fairly stated.

We conducted our verification with regard to the GHG assertion of TAIWAN HIGH SPEED RAIL, which included assessment of GHG information system, monitoring and reporting procedures. This assessment included the collection of evidence supporting the reported data, and checking whether the provisions of the product reference, were consistently and appropriately applied.

In SGS's opinion the presented GHG assertion:

- is materially correct and is a fair representation of the GHG data and information, and
- is prepared in accordance with ISO 14064-1:2018 on GHG quantification, monitoring and reporting.

Confidentiality

The reports and attachments may contain relevant confidential information of the clients, in addition to being submitted as governmental application or certification documents, the reports and attachments are not allowed to be copied, duplicated, or published without the clients' agreement in written form.

Avoidance of Conflict of Interest

The reports and attachments are completely compliant with the standards and procedures that related authorities established. The reports and attachments of auditing process are conducted with fairness and honesty. If not, the auditing institution not only has to bear the relevant compensation (if any), but also to assume legal charge and punishment.

This statement shall be interpreted with the GHG assertion of TAIWAN HIGH SPEED RAIL as a whole.

This Statement is not valid without the full verification scope, objectives, criteria and findings available on the Statement. Page 9 of 10

Statement TW2300507GG, continued



Verifier Group

Above statements coincide with auditing process with fairness and impartiality and aim of the emission of year 2022 of clients.

Lead Verifier: *Yifan Lu*

Verifier: *Rogelio*, *Aiden Tseng*

This Statement is not valid without the full verification scope, objectives, criteria and findings available on the Statement. Page 10 of 10

Opinion Statement



INDEPENDENT ASSURANCE OPINION STATEMENT

2023 Taiwan High Speed Rail Sustainability Report

The British Standards Institution is independent to Taiwan High Speed Rail Corporation (hereafter referred to as THSRC in this statement) and has no financial interest in the operation of THSRC other than for the assessment and verification of the sustainability statements contained in this report.

This independent assurance opinion statement has been prepared for the stakeholders of THSRC only for the purposes of assuring its statements relating to its sustainability report, more particularly described in the Scope below. It was not prepared for any other purpose. The British Standards Institution will not, in providing this independent assurance opinion statement, accept or assume responsibility (legal or otherwise) or accept liability for or in connection with any other purpose for which it may be used, or to any person by whom the independent assurance opinion statement may be read.

This independent assurance opinion statement is prepared on the basis of review by the British Standards Institution of information presented to it by THSRC. The review does not extend beyond such information and is solely based on it. In performing such review, the British Standards Institution has assumed that all such information is complete and accurate.

Any queries that may arise by virtue of this independent assurance opinion statement or matters relating to it should be addressed to THSRC only.

Scope

The scope of engagement agreed upon with THSRC includes the followings:

1. The assurance scope is consistent with the description of 2023 Taiwan High Speed Rail Sustainability Report.
2. The evaluation of the nature and extent of the THSRC's adherence to AA1000 AccountAbility Principles (2018) and the reliability of specified sustainability performance information in this report as conducted in accordance with type 2 of AA1000AS v3 sustainability assurance engagement.
3. The verification of disclosure to be reliable with the applicable SASB industry(s) standard(s) in this report as conducted in accordance with type 2 of AA1000AS v3 sustainability assurance engagement.

This statement was prepared in English and translated into Chinese for reference only.

Opinion Statement

We conclude that the 2023 Taiwan High Speed Rail Sustainability Report provides a fair view of the THSRC sustainability programmes and performances during 2023. The sustainability report subject to assurance is materially correct without voluntary omissions based upon testing within the limitations of the scope of the assurance, the information and data provided by the THSRC and the sample taken. We believe that the performance information of Environment, Social and Governance (ESG) are correctly represented. The sustainability performance information disclosed in the report demonstrate THSRC's efforts recognized by its stakeholders.

Our work was carried out by a team of sustainability report assurers in accordance with the AA1000AS v3. We planned and performed this part of our work to obtain the necessary information and explanations we considered to provide sufficient evidence that THSRC's description of their approach to AA1000AS v3 and their self-declaration in accordance with GRI Standards and SASB Standard(s) were fairly stated.

Methodology

Our work was designed to gather evidence on which to base our conclusion. We undertook the following activities:

- a top level review of issues raised by external parties that could be relevant to THSRC's policies to provide a check on the appropriateness of statements made in the report.
- discussion with managers on THSRC's approach to stakeholder engagement. Moreover, we had sampled 1 external and 1 internal stakeholders to conduct interview.
- interview with 24 staffs involved in sustainability management, report preparation and provision of report information were carried out.
- review of materiality assessment process.
- review of key organizational developments.
- review of the extent and maturity of the relevant accounting systems for financial and non-financial reports.
- review of the findings of internal audits.
- the verification of performance data and claims made in the report through meeting with managers responsible for gathering data.
- review of the processes for gathering and ensuring the accuracy of data, followed data trails to initial aggregated source and checked sample data to greater depth during site visits.
- the consolidated financial data are based on audited financial data, we checked that this data was consistently reproduced.
- review of supporting evidence for claims made in the reports.
- an assessment of the organization's reporting and management processes concerning this reporting against the principles of Inclusivity, Materiality, Responsiveness, and Impact as described in the AA1000AP (2018).
- an assessment of the organization's use of metrics or targets of SASB Standard(s) to assess and manage topic-related risks and opportunities.

Conclusions

A detailed review against the Inclusivity, Materiality, Responsiveness, and Impact of AA1000AP (2018) and sustainability performance information as well as GRI Standards and SASB Standard(s) is set out below:

Inclusivity

In this report, it reflects that THSRC has continually sought the engagement of its stakeholders and established material sustainability topics, as the participation of stakeholders has been conducted in developing and achieving an accountable and strategic response to sustainability. There are fair reporting and disclosures for the information of Environment, Social and Governance (ESG) in this report, so that appropriate planning and target-setting can be supported. In our professional opinion the report covers the THSRC's inclusivity issues and has demonstrated sustainable conduct supported by top management and implemented in all levels among organization.

Materiality

The THSRC publishes material topics that will substantively influence and impact the assessments, decisions, actions and performance of THSRC and its stakeholders. The sustainability information disclosed enables its stakeholders to make informed judgements about the THSRC's management and performance. In our professional opinion the report covers the THSRC's materiality assessment process and material issues.

Responsiveness

THSRC has implemented the practice to respond to the expectations and perceptions of its stakeholders. An Ethical Policy for the THSRC is developed and continually provides the opportunity to further enhance THSRC's responsiveness to stakeholder concerns. Topics that stakeholder concern about have been responded timely. In our professional opinion the report covers the THSRC's responsiveness issues.

Impact

THSRC has identified and fairly represented impacts that were measured and disclosed in probably balanced and effective way. THSRC has established processes to monitor, measure, evaluate, and manage impacts that lead to more effective decision-making and results-based management within an organization. In our professional opinion the report covers the THSRC's impact issues.

Performance information

Based on our work described in this statement, specified sustainability performance information such as GRI Standards disclosures disclosed in this report, THSRC and BSI have agreed upon to include in the scope. In our view, the data and information contained within 2023 Taiwan High Speed Rail Sustainability Report are reliable.

GRI Sustainability Reporting Standards (GRI Standards)

THSRC provided us with their self-declaration of in accordance with GRI Standards 2021 (For each material topic covered in the applicable GRI Sector Standard and relevant GRI Topic Standard, including the disclosures of applicable economic, environmental, and social information, comply with all reporting requirements for disclosures). Based on our review, we confirm that sustainable development disclosures with reference to GRI Standards' disclosures are reported, partially reported, or omitted. In our professional opinion the self-declaration covers the THSRC's sustainability topics.

SASB Standards

THSRC provided us with their self-declaration of in accordance with SASB Standard(s) (Rail Transportation Sustainability Accounting Standard, version 2023-12). Based on our review, we confirm that the sustainability disclosure topics & accounting metrics of SASB Standard(s) (Rail Transportation Sustainability Accounting Standard, version 2023-12) are reported, partially reported, or omitted. In our professional opinion the sustainability disclosure topics, associated accounting metrics and activity metrics for applicable SASB industry standard(s) contained within 2023 Taiwan High Speed Rail Sustainability Report are reliable.

Assurance level

The high level assurance provided is in accordance with AA1000AS v3 in our review, as defined by the scope and methodology described in this statement.

The moderate level assurance provided is in accordance with AA1000AS v3 in our review of SASB Standard(s).

Responsibility

This sustainability report is the responsibility of the THSRC's chairman as declared in his responsibility letter. Our responsibility is to provide an independent assurance opinion statement to stakeholders giving our professional opinion based on the scope and methodology described.

Competency and Independence

The assurance team was composed of auditors experienced in relevant sectors, and trained in a range of sustainability, environmental and social standards including AA1000AS, ISO 14001, ISO 45001, ISO 14064, and ISO 9001. BSI is a leading global standards and assessment body founded in 1901. The assurance is carried out in line with the BSI Fair Trading Code of Practice.



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2024-05-29

For and on behalf of BSI:

Peter Pu, Managing Director BSI Taiwan

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