



中国交建马来西亚东海岸铁路项目总经理部
CHINA COMMUNICATIONS CONSTRUCTION (ECRL) SDN. BHD.

2023

Environmental, Social and Governance Report

China Communications Construction
East Coast Rail Link Project



To Stakeholders

For over half a century, China and Malaysia have been close neighbors, standing together through both challenges and successes, and characterized by honesty, mutual trust, and mutual support. Since the commencement of the ECRL Project in 2017, we have always adhered to the principles of integrity, fairness, and win-win cooperation while developing to achieve the "soft connectivity" of people's hearts alongside "hard connectivity" of infrastructure. Through our efforts, we aim to transition the Belt and Road Initiative from broad strokes to detailed artistry, revitalizing the centuries-old Tuoling Ancient Road with the vibrant spirit of the new era.

We are committed to the concept of green development, continuously strengthen the "Five-Green Construction" initiatives, create a model of environmental protection for the Belt and Road Initiative project, continuously improve the environmental protection and ecological recovery capacity construction, and **take the responsibility of implementing the sustainable development of the rail link in the era depicted by the harmony of mountains and waters.**

We uphold our commitment to equal employment and employee welfare, continuously enhance the labor protection framework, organize various forms of public welfare initiatives and exchange activities, actively engage in dialogue and cooperation with relevant stakeholders, partner with local communities to foster warm and harmonious environments. **Through these efforts, we genuinely showcase our practical and people-centric approach as we progress together with the times.**

We adhere to legal and compliant operations, advance the "Five Major Campaigns" hand in hand, achieve the annual output value with top-tier standards, integrity and innovation, continuously drive "high-quality development", build excellent projects, **and express our commitment to progress and collaboration in this era of joint effort.**

United by a shared dream and mission, we are committed to building a bridge of cooperation and development between China and Malaysia beneath the blue sky, across the vast land and lush rain forest. "East Coast Rail Link does not only connect the east and west coasts of Malaysia, but also strengthens the bond between China and Malaysia. Looking ahead, we will unite with each other, move forward with determination and strive with unwavering effort, leaving our mark in the East Coast Rail Link, making a lasting contribution on the East Coast, and creating another historical monument that commemorates the friendship between China and Malaysia!

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Report Guide

The report is the first environmental, social and governance report issued by China Communications Construction East Coast Rail Link Project (hereinafter referred to as "ECRL"). It aims to disclose the implementation of ESG concept, practice and performance of ECRL as fully as possible, strengthen communications and exchanges with stakeholders, and respond to their expectations and demands.

Report Life Cycle

The time frame of this report is from the project's start in 2017 to the cutoff date for data collection on December 31, 2023. In order to ensure the completeness of this report, some contents are appropriately traced forward and extended backwards.

Report Subject

For ease of expression, the terms of "CCC ECRL Project", "ECRL Project Management", "East Coast Rail Link", "We" and "ECRL" are used interchangeably to refer to the China Communications Construction East Coast Rail Link Project.

Basis of Preparation

- *Guiding Opinions on the Performance of Social Responsibility of Central Enterprises* by SASAC of the State Council
- United Nations Sustainable Development Goals (SDGs)
- Global Reporting Initiative (GRI) *Sustainable Development Reporting Guidelines* (GRI Standards)
- International Organization for Standardization (ISO) *Guidelines on Social Responsibility: ISO 26000*

Data Source

The data used in this report are sourced from the official documents and statistical reports of the ECRL Project. All monetary amounts are presented in RMB by default, unless otherwise specified. Relevant data and information quoted in this report are intended solely for the purposes of the report and shall not be used for any other purpose.

Report Obtaining Methods

This report is available in both Chinese and English, and can be obtained in both printed and electronic formats. To request a printed copy, please contact us.

Explanation of Terminologies

Image Progress	One of the main indicators of the progress of engineering activities. Reflecting the actual status of completed project components to indicate the overall progress of the project.
Critical Path	In the project schedule management, this refers to the sequence of key tasks that determines the longest duration of the project from start to finish.
Five Major Campaigns	Commercial Contract and Survey & Design Campaign, Civil and Building Works Campaign, Track works Campaign, Systems Works Campaign as well as Testing and Commissioning Campaign.
Four Orientations and Two Innovations	Flattening, standardization, digitalization, localization, scientific and technological innovation and management innovation.
One Theme Activity Every Two Months	Safety & Health Campaign Program
CCC-ECRL	China Communications Construction East Coast Rail Link Project
PLKI-ECRL	East Coast Rail Link Industrial Skills Training Programme
ECRL	Malaysia East Coast Rail Link
MRL	Malaysia Rail Link
QHSE	Quality, Health, Safety and Environmental Protection
HSE	Health, Safety and Environmental Protection

Contact Information

Address: Block 5A, Level 3A Menara 1 Dutamas, Solaris Dutamas, No.1, Jalan
Tel: +603 6206 3965

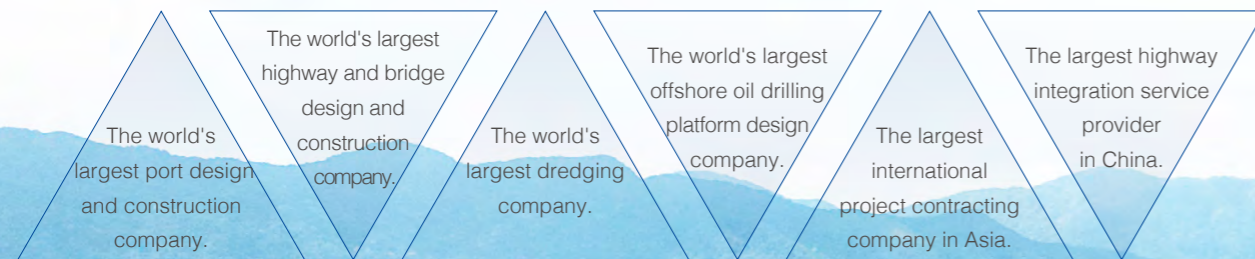


About China Communications Construction Company

China Communications Construction Company Limited (hereinafter referred to as "CCCC") is a global leader in providing comprehensive service for large-scale infrastructure, primarily engaged in investment, construction and operation of transportation infrastructure, equipment manufacturing, real estate and urban comprehensive development. We offer a full suite of solutions and integrated services to our clients, including investment and financing, consulting and planning, design and construction, as well as management and operation.

CCCC has been engaged in infrastructure related industries for over a century, with products and services covering more than 150 countries. It has built a large number of transportation infrastructure projects that represent the highest standards globally and across eras, providing customers with comprehensive and advanced services, and forming a globally leading technology system; CCCC operates 34 major wholly-owned subsidiaries and controlling subsidiaries. CCCC is listed on both the Hong Kong and Shanghai stock exchanges, and its profitability and value creation capabilities are in a leading position among global peers. In 2023, CCCC ranked 63rd on the *Fortune* Global 500 list. It achieved "18 Consecutive A" rating in the performance evaluation by the State-owned Assets Supervision and Administration Commission of the State Council. Additionally, CCCC has been named among the "Top 80 Chinese Contractors" and "Top 60 Chinese Design Firms" for 18 consecutive years, and has topped the list of "Contractors with the Most International Expansion Potential".

The "Best" of CCCC



Corporate Culture

Corporate Mission

Only solid foundation, good morality and proper behavior could lead to a better future.

Corporate vision

We make the world more connected, the city more livable and the life more beautiful.

Enterprise spirit

Transportation integrates the world; the builder's field is boundless.

Enterprise goal

To build a world-class enterprise with global competitiveness in terms of science and technology, management and quality.

Value orientation

Evaluate heroes by their performance instead of background.

About CCC ECRL Project

Project Overview

CCC ECRL is the engineering, procurement, construction and commissioning (EPCC) which general contracting project integrating design, procurement, construction and joint commissioning and testing. This project is designed as a Class I electrified railway in China, accommodating both passenger and freight transport. The civil engineering works off the line adopt the integrated standard of China and Malaysia, and the on-line and railway vehicles adhere to Chinese standard. The design speed of passenger transportation is 160km/h and the design speed of freight is 80km/h. This project is of great strategic significance and is listed as the "No. 1 Project" of CCCC. The railway has a total length of 665 kilometers, starting from Kota Bharu in the east of Malaysia and reaching to Port Klang in the west of Malaysia, crossing the Malay Peninsula and connecting the Pacific Ocean and the Indian Ocean. It traverses four states of Malaysia-Kelantan, Terengganu, Pahang and Selangor and bridging economically developed regions and less developed areas. It is an important part of the Trans-Asian Railway Network, which is of great political, economic and social significance. Upon completion, the Rail Link will become the main traffic trunk line between the east and west coasts of Malaysia, which will help to promote the balanced development of the east and west coasts of Malaysia, facilitating balanced regional development, offering efficient and convenient travel and freight options, and boosting the competitiveness of local industries. Meanwhile, integrating rail and sea transport will increase the freight demand of east coast ports such as Kuantan Port, and then enhancing their competitive edge.

Flagship Project of
the Belt and Road Initiative

The largest economic
and trade cooperation
project between China
and Malaysia

The largest single
transportation infrastructure
project currently under
construction by Chinese
enterprises overseas



Overall Guiding Ideology of the Project

1 Establish a Core Positioning

- Keep in mind our original mission, courageously take responsibility, and regard the high-quality completion of "political tasks" as our duty. We aim to fulfill our commitments at a high level, create timeless quality projects, and build a bridge of friendship between China and Malaysia.

2 Assume Two Main Responsibilities

- Political Responsibility:** Set a new benchmark for infrastructure construction along the Belt and Road Initiative.
- Development Responsibility:** Create positive comprehensive benefits and promote high-quality development of the enterprise.

3 Establish Three Strategic Goals

- Establish a demonstration site and create a flagship project.
- Forge a milestone.
- Create a testing ground.

4 Implement the "Four Unifications" Work Policy

- Unified planning
- Unified implementation
- Unified accounting
- Unified coordination

5 Implement the "Five in Place" Work Requirements

- Resource integration in place
- China-Malaysia integration in place
- Project management in place
- Risk control in place
- Industry chain extension in place

6 Fully Implement the "Six Management Orientations" Measures

- Specialization
- Standardization
- Digitalization
- Refinement
- Localization
- Intensification

7 Achieve the "Seven First-Class" Implementation Goals

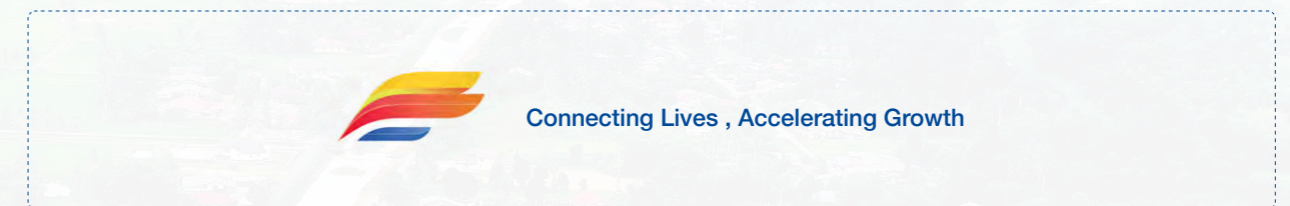
- First-class management
- First-class safety
- First-class quality
- First-class efficiency
- First-class performance
- First-class culture
- First-class team

Strategic Goal of the Project



Cultural Construction of the Project

Cultural Slogan



Cultural Construction Policy



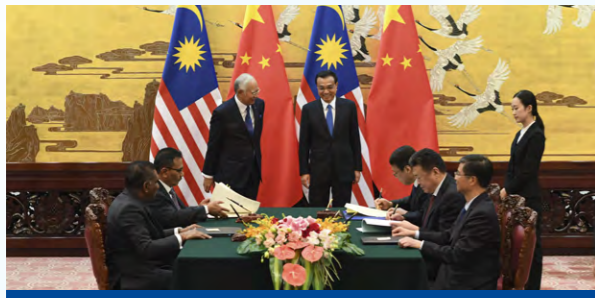
Organizational Structure



Project Events

2016

On November 1, 2016, in the presence of Li Keqiang, then Premier of China's State Council, and Najib, then Prime Minister of Malaysia, the EPCC Contract for the first phase of ECRL Project was signed.



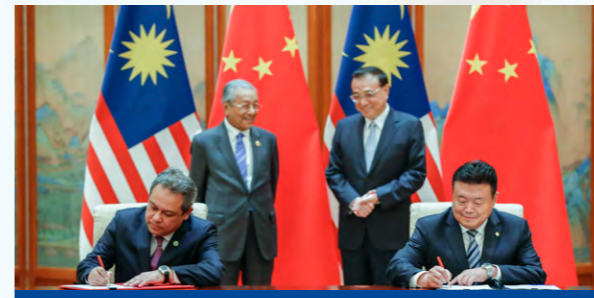
2017

On August 9, 2017, Wang Yong, former Chinese State Councilor, and Najib, then Prime Minister of Malaysia attended the project commencement ceremony.



2019

On April 25, 2019, in the presence of Li Keqiang, then Premier of China's State Council, and Tun Dr. Mahathir Mohamad, then Prime Minister of Malaysia CCCC, had signed the Memorandum of Understanding Line-side Investment and Development Cooperation Framework with the Malaysia Investment Development Authority, further deepening the cooperation between China and Malaysia.



2020

In 2020, the COVID-19 pandemic broke out globally and we adhered to the principle of "focusing on both epidemic prevention and control and resuming work and production" during the project implementation.



2023

On December 11, 2023, the First Track Laying Ceremony of CCC ECRL Project was grandly held. His Majesty Abdullah, the King of Malaysia, and her Majesty Aziza, the Queen of Malaysia, attended the scene.



2023

On May 12, 2023, the Commencement Ceremony of Kota Bharu Station of CCC ECRL Project was held in Kota Bharu, capital of Kelantan State, attended by Anwar Ibrahim, Prime Minister of Malaysia.



2022

On June 2, 2022, China and Malaysia formally held the Signing Ceremony of Supplementary Agreement 6 at the Ministry of Transport of Malaysia. Ouyang Yujing, the Chinese Ambassador to Malaysia, and Wee Ka Siong, who was then the Minister of Transport of Malaysia, attended the Signing Ceremony and witnessed the signing of the Contract.



2021

On December 2, 2021, Yu Jun, then the Counsellor of the Chinese Embassy in Malaysia, attended the Handover Ceremony of The Documents for the New North Line of Section C of the project. Wee Ka Siong, who was then the Minister of Transport of Malaysia, and Amiruddin, Minister of State Affairs of Selangor, attended the ceremony and delivered speeches.



Latest News

On June 19, 2024, Li Qiang, Premier of China's State Council and Anwar Ibrahim, Prime Minister of Malaysia, jointly attended the groundbreaking ceremony for ECRL Gombak Integrated Terminal Station and delivered speeches respectively.



On June 19, 2024, Wang Tongzhou, Chairman of CCC, attended the groundbreaking ceremony of Gombak Station.

Gombak Station is one of the four major state stations of CCC ECRL Project. It is located on the edge of Gombak Quartz Ridge, known for its extensive quartz formations, close to Kuala Lumpur, serving as a key station similar to a central hub. After completion, the station will be connected with the existing Gombak Light Rail Station and become a comprehensive transportation hub, greatly alleviating the increasingly congested traffic pressure in the Kuala Lumpur metropolitan area.







ESG Management

ESG Management Philosophy

We always adhere to the concept of "Connecting lives and accelerating growth". On the basis of creating a safe, centennial-quality project, we are committed to building the project into an environmentally friendly initiative that benefits the public and promote sustainable economic development. We truly implement the principles of joint consultation, co-construction and shared benefits of the Belt and Road Initiative, as well as the concepts of openness, greenness, and integrity, so as to effectively promote the policy communication, facility connectivity, smooth trade, financial integration and popular support between China and Malaysia. It stands as another milestone in the enduring friendship between the two countries.

Stakeholder Communication

We attach great importance to communicating with all stakeholders, continuously improving and enriching our communication mechanisms and methods, comprehensively understand and respond to the demands and expectations of the stakeholders, and focus on the practical benefits that the ECRL Project brings to the local economy, society and people.

Stakeholders	Communication Mechanism	Responsibility Performance and Response
 Government	Work Report Information Submission Strategic Cooperation	In Accordance to Laws and Regulations Win-win Cooperation Smooth Communication Drive Local Development
 Partners and Suppliers	Bidding and Tendering Contract Execution Meeting Communication Evaluation and Management of Interested Parties	Win-win Cooperation Responsibility Industry Chain
 Employee	Training Meeting Work Communication Cultural and Sports Activities Exchanges and Condolences	Protection of Employees' Rights and Interests Employee Development and Growth Employee Safety and Health Cultural Exchange Employee Assistance
 Community	Exchanges and Condolences Public Charity Volunteer Activities	Community Communication Public Charity Environmental Protection Ecological Restoration

G



Chapter 1 - Governance

Building Harmonious Achievements
through Connectivity



Those with shared aspirations are undeterred by mountains and seas. Over ten years of co-construction of the Belt and Road Initiative, the CCC ECRL Project has strictly adhered to Malaysian laws and regulations, has promoted the whole construction process of the project with a high sense of responsibility, has explored various advanced technologies, and has maintained high standards and stringent requirements to ensure safety and stability, serving local development with high-quality railway engineering.



Lean Operation and Shaping New Advantages in Compliance

We are committed to maintaining integrity by strictly adhering to local laws, international conventions, and continuously enhancing internal management to mitigate and manage business risks, uphold business ethics, constantly standardize the project's compliance operations to ensure the high quality and sustainable development of the project.

Adhere to Law-abiding and Compliance

We strictly adhere to Malaysia laws and regulations, abide by various international conventions and business ethics, resolutely oppose unfair competition and corruption, set up a compliance management system led by the CCC ECRL, developed a comprehensive compliance framework, and integrated compliance into performance assessment, pay close attention to key links such as bidding, subcontracting, procurement and settlement, ensure that compliance work is embedded in production and operation and management process, and conduct practical compliance training to ensure comprehensive coverage. On January 18, 2024, CCCC awarded the title of "Advanced Compliance Management Project Department" to the Headquarter of CCC ECRL.



► The seminar on anti-corruption risk management was held with MRL on November 20, 2019.



► The annual compliance training for internal staff of the project was held in October 2020.



► On November 15, 2023, a training session on the relevant laws, regulations, and procedures of the Malaysian Anti-Corruption Commission was held.



Strengthen Risk Prevention and Control

When undertaking overseas business activities, ECRL Project diligently fulfill our responsibilities for managing risks associated with Chinese overseas operations, conduct proactive and systematic coordination of risk management, identifying, assessing, and managing risks in accordance with ISO 31000 (Risk Management – Principles and Guidelines). We have established risk management system, worked closely with all departments, regularly conduct risk identification, monitor significant risk sources, develop targeted prevention and control measures, and effectively implement the risk management throughout all project processes.



► Risk Management System



► ECRL Project held a quarterly risk committee meeting with MRL on August 25, 2020



► Conducted 2021 Annual Risk Management Training



Streamlined Project Operation

In 2023, we thoroughly implemented CCC's decision to accelerate the construction schedule, adhered closely to the overall goals of the "Year of Deepening High-Quality Development", paid close attention to the two main priorities of "Image Progress" and "Critical path", effectively advanced the "Five Major Campaigns". The plan to transform the Double Track Works from Jalan Kastam to Northport and Westport of Port Klang into a "standard gauge and meter gauge" project was formulated. Domestic and international design firms completed the quantity and cost assessments of the port-dredging railway connecting line such as the standard gauge and meter gauge, and formally submitted the quotation proposal to MRL. In response to Malaysia's national economic development needs, we organized and conducted a study on the medium and long-term planning of the Malay Peninsula standard gauge railway network such as the ECRL Northern Extension of the project (the border from Kota Bharu to Thailand) and the ECRL Southern Extension (Temerloh to Port Klang via Putrajaya). We also completed the Double Track Upgrading of the project, including cost assessment and external communication documents for the north and south extension lines. We maintained continuous engagement with relevant federal government departments and the MRL.



► The quality management system, environmental management system and occupational health and safety management system of ECRL Project have successfully passed the certification audit of Lloyd's Register Quality Assurance Malaysia Company Audit Expert Group and received certification. It is the first large-scale integrated project in Southeast Asia to obtain this system certification.



► On April 3, 2024, the Land Public Transport Agency, Ministry of Transport Malaysia hosted the 2023 Malaysia Rail Transit Project Excellence Conference at its headquarter, commending the rail transit projects under construction in Malaysia. The ECRL Project was honored with the 2023 "Best Project Management Award".

Innovation and Efficiency and Activating New Momentum for Development

The essence of enterprise's international competitiveness lies in its innovation capability. We prioritize innovation, creating a management platform that encourages creativity while exploring and integrating advanced technologies, and provide solid scientific and technological support for project operation and project progress.

Strengthen Innovative Management

We adhere to the implementation path of "Four Orientations and Two Innovations", fully leveraging the role of "value creation center", actively collaborating with colleges and universities to create a professional platform, sign the agreement on operation and maintenance management system and training research with Liuzhou Railway Vocational Technical College (hereinafter referred to as "Vocational College"), and carry out research on innovative operation and maintenance operation rules and regulations system, training plan research, technical and skilled personnel training and international production and education integration of Malaysia East Coast Rail Link. Cooperate with Vocational College and University Malaysia Pahang to promote the establishment of "China-Malaysia Railway Modern Craftsman College", which was approved by Education Department of Guangxi Province. In 2023, it organized and carried out six management innovation research projects, including the promotion practice research of project collaborative management platform in overseas super-large-scale general contracting projects, the practice research of digital construction management of overseas long-large trunk quasi-high-speed railway, the practice of intensive management of super-large overseas railway projects, the research on localization management mode of Malaysia mega railway projects, the innovative practice of financial sharing and industry-finance integrated construction management of overseas mega construction projects, and the innovative construction of central laboratory of ECRL Project.

Integration and Innovation of China-Malaysia Railway Standards



Malaysia East Coast Rail Link Project is a landmark project for railway construction technology, standard system, and equipment "going international" in China. Based on ECRL Project, both China and Malaysia actively explore the integration, transformation and innovation of China-Malaysia railway technology standards, develop innovative sets of China-Malaysia railway technology integration standards, propose the framework and transformation application plan for the Malaysia railway technology standard system, and jointly formulate important technical standards for the Malaysia railway.

The civil works of ECRL Project adopt integrated standards and diverse systems, forming technical achievements such as the design principles of the China-Malaysia standard integrated railway and the technical specifications of the China-Malaysia standard integrated railway. The System and rolling stocks works of ECRL Project fully adopt Chinese standards, and the advantageous production is fully integrated and exported overseas. The construction of station adopts the mature management system and mechanism, utilizes Chinese construction methods to create a local landmark project, and effectively combines local elements, creating a unique scenery, and complementing the elements of China and Malaysia. The ECRL Project has comprehensively formed a list of 132 China-Malaysia railway technical standards as the basis for the subsequent integration of technical standards. The ECRL Project compiles the principled and fundamental standards of Chinese standards into basic standards, integrates and innovates professional standards based on local conditions to enhance the adaptability of standards, which provides practical exploration with higher flexibility and economy for China railway "going international".



Long Rail Fixed Screenshot Paver



Track-laying Dongfeng 8B Diesel Locomotive

Explore Advanced Technology

Considering the local climate, environment, geographical location, and resource conditions, we leveraged advanced railway construction technologies to accelerate innovation in strategic, cutting-edge, and core technologies. This approach led to breakthrough of key and core technology to "unlock the bottleneck" and provided powerful guarantee for the project quality.

Open-type Hard Rock Tunnel Boring Machine (TBM) was Reported by Mainstream Media in China and Malaysia **Case**

Open-type Hard Rock Tunnel Boring Machine (TBM) is specially manufactured by CCCC Tianhe Machinery Equipment Manufacturing Co., Ltd. for Genting Tunnel of ECRL Project. With an excavation diameter of 8.98m, a weight of about 1600 tons and a length of 266m, TBM is the largest diameter and longest mountainous tunnel TBM in Malaysia to date. TBM will exert the equipment efficiency to the maximum extent under the efficient management of the project team of ECRL Project, realize continuous and rapid tunneling, and complete the construction of Genting Tunnel on schedule and with good quality. China Press, Oriental Daily News, The Malaysian Insight and other Malaysia mainstream media have successively released a series of reports, which have attracted wide attention at home and abroad.



▶ On April 6, 2023, Wang Haihui, General Manager of CCCC, inspected the key control projects along the ECRL Project, including the Genting Tunnel and the Kuantan River Super Major Bridge.

Major Achievements in Design Optimization of Project **Case**

On March 9, 2024, the Headquarter of ECRL Project organized an expert review meeting, and passed the proposal of the design scheme of the 32-meter-span double-track T-beam for the 300-meter small-radius curve section, and it is expected to directly create economic benefits of nearly USD 10 million.

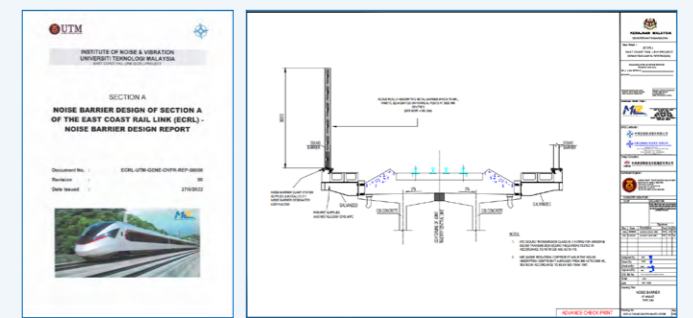
The scheme innovatively adopts a specially designed T-beam to replace a conventional simply-supported box beam in a 300m ultra-small-radius curve double-track railway bridge section, scientifically solves the practical application limit of the T-beam of the 32m-span small-radius curve section of the double-track railway at home and abroad in the past, reduces the construction period of a key control bridge by 8 months, greatly reduces the construction safety risk, effectively solves the "bottleneck" problems of construction difficulty, uncontrollable construction period and the like of a small-radius curve section bridge of a section C and a branch line, laying a solid technical foundation for the realization of the safety, quality, construction period and profits of ECRL Project.

At present, the ECRL Project has completed the submission for approval of the construction drawing design of 32m-span T-beam applicable to the double track of 300m small-radius curve section and the reconstruction of bridge erector machine. In the future, the technical scheme for beam erection of small-radius curve section will be further studied and refined, and corresponding safety technical control measures shall be formulated to ensure the safety of beam erection of small-radius curve section. Combined with the actual characteristics of low operation speed target value of small-radius curve section of the railway, the design optimization and technical transformation of the existing bridge beam erection machine provide strong technical guarantee for the smooth implementation of ECRL Project, and also provide reliable technical accumulation and support for the company to expand the markets of overseas municipal railways, urban rail and special lines for heavy-duty railways.



ECRL Project Cooperates with Universities to Carry out Noise Prevention Research **Case**

Taking full consideration of the noise issues during railway operation and their impact on residents along the alignment, the ECRL Project, in collaboration with Universiti Teknologi Malaysia (UTM), conducted a specialized study on noise and vibration effects during both the construction and operational phases. A design and installation scheme for noise barriers was developed, along with prevention and mitigation measures. This approach received approval and endorsement from the environmental protection agencies and the public in each state along the route, effectively minimizing external disturbances during the project execution.



Promote Intelligence Application

We continuously enhance system upgrades and advance digital construction. Our efforts include dynamically updating the integrated management platform to enhance project processes with intelligence. To address construction and production needs, we have introduced a state-of-the-art domestic rail engineering transportation dispatching system. This intelligent platform facilitates statistical analysis, visual management, and information-based dispatching, ensuring the safety of train operation and construction of the engineering line as well as the safety and efficiency of rail transportation. In 2023, the financial sharing and industry-finance integration platform of the project was recognized as one of the "Top

Ten National Enterprise Digitized Empowerment Cases" and received the Excellent Work Award for Data Innovation and Application of CCCC 2023 "Digital Intelligence Cup".



▶ Transportation Dispatching System of Track Engineering

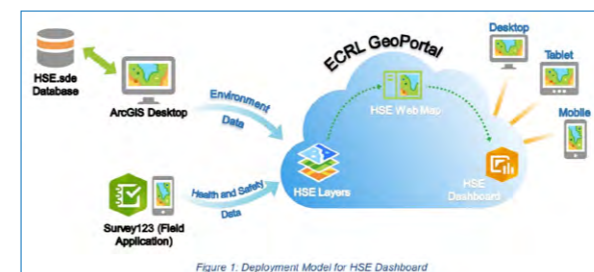
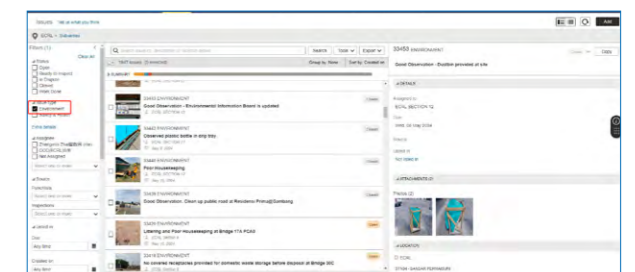


Figure 1. Deployment Model for HSE Dashboard

▶ **GIS Environmental Protection Module:** The project makes full use of information means to timely update the main control factors such as the water discharge position of sedimentation pond along the whole alignment, monitoring results of environmental baseline monitoring station, wildlife activities, environmental accident/incident report and so on into the GIS system module of the project, to ensure shared, open and transparent management system for environmental protection information.



▶ **HSE Digitized Inspection and Management System:** Utilizing the existing Aconex project engineering comprehensive management software, we have independently developed a digitized HSE inspection and management system. This system creates the on-site cross environmental management supervision system integrating the client, the supervision consultants, the project management team and the Sections, and a benign interactive mode of joint management; at the same time, using a large data collection system to scientifically analyze prominent problems and work priorities on-site. The shift to "informationized" and "paperless" operations significantly reduces the unnecessary forest resource consumption, demonstrating the ECRL Project's proactive response to national green and low-carbon sustainable development goals.

Create an Atmosphere of Innovation

We strive to improve our scientific and technological awareness, innovation culture and technical capability, carefully organize diversified technical training activities, constantly stimulate the motivation and ability of project members to participate in scientific and technological innovation, and constantly strive to build a world-class enterprise with global competitiveness in science and technology, management and quality.

Project Organizes Science and Technology Month Activity



In November 2023, the ECRL Project organized a series of Science and Technology Month activities focusing on the theme of "Embrace the Intelligent Era and Jointly Create Future Industry", which effectively stimulated the motivation of the project staff to participate in the scientific and technological innovation, enriched the professional theoretical knowledge of the staff, improved the staff's scientific and technological literacy, enhanced the ability of team cooperation and collaborative work, further promoted the science and technology awareness, innovation culture, and technical capabilities of ECRL Project, and laid a solid foundation for high-quality construction.

Section 5 launched the kick-off meeting of the Science and Technology Month activity in the basecamp, organized and carried out its science and technology month activity in combination with the actual production and operation of Section 5, and formulated the Science and Technology Month Activity Plan. During the science and technology month, the activities planned by Section 5 mainly include P6 progress management, Revit station pipeline collision detection, Midas Civil and large



Section 11 launched the first phase of the Science and Technology Month activity according to the actual needs of project management, in combination with the management requirements of the Headquarter for the section and its own actual situation. The first phase of the activity focused on the research and application of LTE-R wireless communication system technology of Malaysia East Coast Rail Link, and discussed relevant technologies, work difficulties and future prospects. Section 11 will continue to focus on scientific research projects and practical site conditions, aiming for tangible results, so as to carry out four phases of activities during the science and technology month.

Section 7 invited surveying and mapping experts to organize and carry out the training of construction surveying technology. During the training, the surveying and mapping experts firstly emphasized the importance of the surveying work from the angles of "ten prohibitions and ten mistakes" and "three key matters", explained the basic application of the surveying system, the calibration and self-calibration of the total station and the real-time monitoring of surveying in detail, and made in-depth communication with the trainees on the traverse surveying technology and real-time monitoring of leveling of the Genting Tunnel and No. 23 Bridge. After the theoretical training, the trainees carried out practical operation training with Leica total station and Trimble electronic level in Genting Tunnel and No. 23 Bridge, and the surveying experts provided many practical suggestions on-site survey technology.



Proactive Measures and Building New Security Framework

Safe development is the foundation of sustainable development for enterprise. We insist on putting equal emphasis on overall development and safety, strictly abide by relevant laws and regulations of Malaysia, establish awareness of red lines and bottom lines, unswervingly keep the bottom line of safety production, continuously improve the safety management system, promote the specified, systematic and standardized operation of project safety management, and build safety barriers for high-quality development. In 2023, there was no loss and fatality incident happened, and the quality, health, safety and environmental protection (QHSE) work was gained high recognition in Malaysia.

Safety Management

Based on the laws, regulations and standards related to health, safety and environmental protection (HSE) management in Malaysia, combined with the safety management requirements of CCC, we have innovated the safety management mode of "Chinese, local, and collaborative teams", established a comprehensive safety management system integrating "HSE and emergency management", and established a health, safety and environmental protection (HSE) task force jointly with MRL, implemented the HSE all-staff responsibility system, carried out the principle of "Double Duties for One Post" and fully played the role of the local safety management personnel. The HSE responsibility system will be implemented in all operation points along the whole alignment. Focusing on intrinsic safety, we will scientifically promote the safe and stable operation of each project. At present, there are 381 full-time health, safety and environmental protection (HSE) management personnel in ECRL Project.



At present, there are

381

full-time health, safety and environmental protection (HSE) management personnel in ECRL Project.



▶ HSE Management System Documents

Hazard Identification and Management

We emphasise the principles of 'safety first' and 'prevention first,' building a dual prevention system for managing and controlling safety risks and troubleshooting of hidden dangers, strictly implement the full-staff safety production responsibility system, emphasize the implementation of safety production responsibilities, improve the capability of identifying potential hazards with the help of digital tools, create a good safety management atmosphere of joint management, conduct thorough and proactive hazard investigations and management, and timely eliminate the potential hazards of health, safety and environmental protection (HSE) on site, so as to ensure the continuous and stable safety production situation of the project.

Key Performance · 2023

- A total of **40** comprehensive health, safety, and environmental (HSE) inspections were conducted, eliminating **368** hazards, and through the digital inspection management system, a total of **9,832** hazards were eliminated.
- Carry out investigation and treatment activities for high slopes along the whole alignment, and carry out special treatment of potential safety hazards for **23** high slopes with a total length of 7.31km.
- Further standardize the construction processes at beam fabrication yard, and carry out special technical quality inspection of **8** girder fabrication yards from Section 1 to Section 7.
- Conduct **12** monthly quality inspections and **9** special quality inspections for subgrade compactness, with **410** problems found and all rectified.

Emergency Management

We continuously improve our ability to deal with emergency events, formulate and dynamically update emergency plans, carry out emergency drills on a regular basis, and constantly improve the ability of project construction risk prevention and emergency response, so as to minimize the possible losses. In 2023, ECRL Project actively conducted 25 emergency drills, with 1,565 participants.

ECRL Project Forms First Overseas Professional Tunnel Rescue Team



There are 40 tunnels with a length of over 60km along the whole alignment of ECRL Project. Most tunnels are hallow-buried and subject to uneven stress, and the joints and fissures of surrounding rock are developed and broken, so the safety risk of tunnel construction is high. In order to strengthen the emergency handling capability of the project, the project cooperated with Chongqing Tunnel Emergency Rescue Team of CCCC to establish the first overseas professional tunnel rescue team in the mode of "3 (special) + N (concurrent)". The rescue team maintains 24-hour readiness during major holidays and sensitive periods.



Safety Culture



In 2023, a total of

2,782

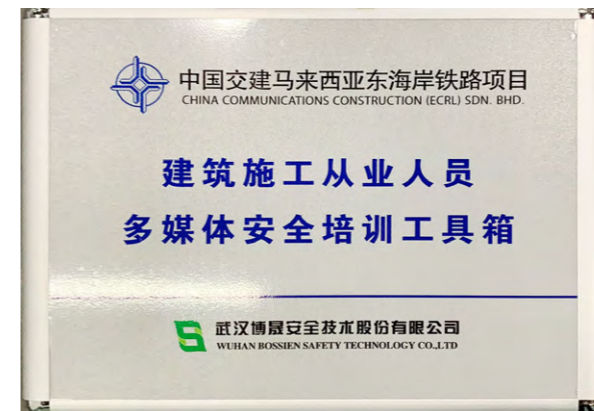
training sessions were conducted

We have established a unique safety culture system, effectively promoted and implemented the safety system, continuously strengthened the health, safety and environmental protection (HSE) education and training, and carried out special safety rectification activities. Following superior directives, carry out the annual action of safety management strengthening, "Safety Production Month" and other theme activities, independently carry out six "two months a theme" special safety rectification activities of health management, 5S site management, high-altitude operation, lifting, mechanical equipment and limited space, and the ECRL Project has obtained the confined space training and certification issued by the local government; we attach great importance to the health, safety and environmental protection (HSE) education and training of employees and actively improve the safety quality of employees. In order to enrich the project education and training methods and improve the training effect, the education and training system of "full-time trainer + training toolbox + experience hall (VR, entity)" has been established, with 13 full-time trainers set up in the whole alignment, and 4 sets of VR and entity experience facilities and 6 sets of multimedia training toolbox configured. In 2023, a total of 2,782 training sessions were conducted, and 38,161 persons-times were trained.

Conduct Confined Space Operation Certification Training



In Malaysia, tunnel construction is strictly defined as confined space work. The tunnel construction shall be equipped with an entry supervisor, and the management and operation personnel entering the tunnel site shall pass the confined space training. In view of the large number of personnel involved in tunnel construction for the project, the project has communicated and coordinated with local government departments for many times, and obtained the training and certification qualification for confined space operation issued by the local government in 2020. This certification allows the project to independently organize and conduct confined space certification training for tunnel operations, so that relevant tunnel construction personnel of the project can meet the requirements of entering the tunnel for work.



▶ Multimedia Training Kit



▶ Specialized Training Activities for Confined Space Work



▶ VR Training



▶ Safety Experience Zone

S



Chapter 2 - Environment Society

United in Heart, Creating a Symphony of
Happiness Together



CCC ECRL Project has always adhered to the strong ties through people-to-people and cross-cultural communication among the project territory, employees, government, suppliers, surrounding communities and other stakeholders. Actively promote local job creation and build a development platform for employees to realize their dreams. Emphasizing communication and exchange of local culture, establish a partnership network based on respect, equality and mutual benefit, leverage our enterprise's strengths, promote the industry development and community construction of the local, drive regional economic benefits, enhance the well-being of local residents, build a warm community and drive shared development and prosperity.



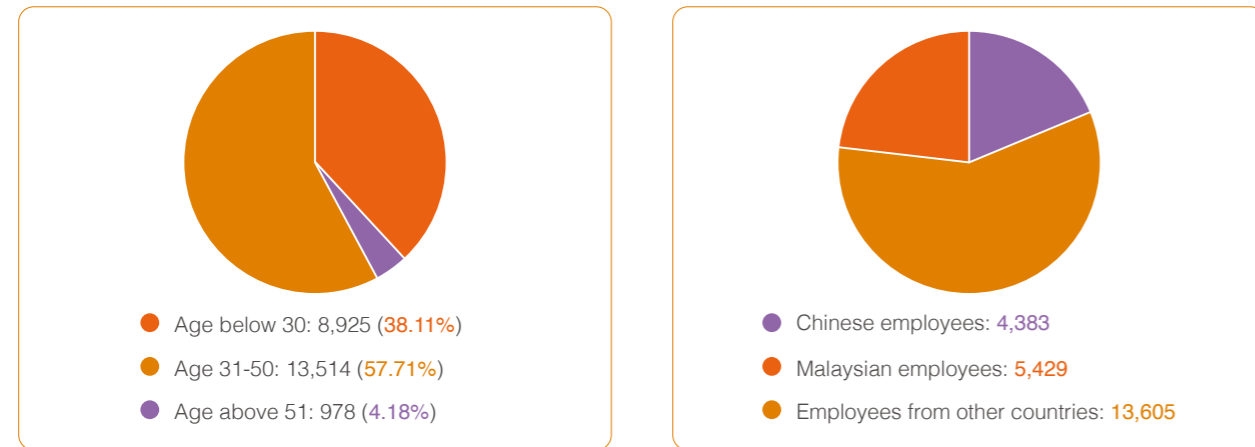
Supporting Employees and Creating a Shared Path to Happiness

We fully comply with Malaysia's laws and regulations, protecting employees' rights and interests by establishing a comprehensive welfare system, actively promote local employment, devote ourselves to creating a positive work environment for employees, improve the talent training system, attach importance to the occupational health and safety of employees, improve the benefit distribution mechanism, mobilize the enthusiasm of employees, care for their work and life with heart, and strengthen their sense of belonging.

Safeguard the Rights and Interests of Employees

We have established various labor protection systems, actively promoting equal employment and providing competitive salaries and benefits, ensure effective communication channels, tap the development potential of employees, respect diverse cultural habits, strengthen localized management, and build a multi-inclusive, healthy and broad development platform for employees.

Employee Profile



Equal Employment

Strictly adhere to the *Employment Act of 1955* and other relevant legal requirements, follow the principle of equal employment, conduct recruitment based on the principles of openness, fairness, competition and merit, resolutely prohibit discrimination based on age, sex, region, nationality, religion or other factors, and firmly opposed of child labor or forced labor.

Labor Protection

Adhere to the people-oriented principle, ensure that wages are paid on time every month, guarantee leave entitlements such as annual leave, sick leave and marriage leave, pay insurance, provident fund, social security, employment insurance and human resource development fund for employees, provide medical reimbursement benefits, and allowances, provide safety helmets and clothes, ensure a good working environment, practically guarantee the safety and health of employees, and protect their rights in terms of career development and on-the-job training.

Localization Management

We fully respect and comply with laws and regulations, rules and social requirements of Malaysia, establish and improve the territory-based talent management system, fully mobilize the enthusiasm of the local employees, and provide a fair and just working environment and promotion space. By the end of 2023, the project has created more than 20,000 employment opportunities for Malaysia and surrounding countries, and recruited more than 6,800 local employees.



► Same project, different positions; different ethnicities, same dream. They work together for the construction of the ECRL Project.



► In Terengganu, three Malay brothers all work in Section 3 of the ECRL Project, serving as Deputy Manager of Project Site, Safety Officer and Senior Surveyor respectively

ECRL Project participates in the Campus Job Fair of Tunku Abdul Rahman University

Case

In April 2023, Section 2 of ECRL Project attended the Career and Internship Job Fair at Tunku Abdul Rahman University in Malaysia. At the career fair, Section 2 set up recruitment for positions such as Civil Engineer, Quality Inspector, Material Coordinator, and Quantity Surveyor. The recruitment booth attracted a significant number of visitors. The recruitment staff of Section 2 engaged enthusiastically with job seeker and answers their questions patiently. A total of 20 resumes were received on the day of the job fair, and a second round of interview was arranged by the professional counterpart department after the initial interview on site. Successful candidates will join the ECRL Project team upon graduation.



► In February 2023, the ECRL Project conducted orientation sessions for newly-recruited employees.



► On July 5, 2023, China-Malaysia Railway Talent Training Job Fair was successfully held in Sabah.

Supporting Talent Development

We continuously enhance our talent development system, create clear career paths, and focus on improving the professional skills, quality, and spirit of our employees, strive to explore the differentiated competitive advantages of different types of employees, exploit the potentialities of employees, provide various career development opportunities, and realize the process-oriented, standardized and sustainable talent team construction. We contribute to the Human Resources Development Fund (HRD) in Malaysia on a pro rata basis each year for local staff training. In 2023, professional training was provided to 303 local employees throughout the year, with an average of 15 training hours per employee.

East Coast Rail Link Industrial Skills Training Programme (PLKI-ECRL)

Case

This program is jointly initiated by ECRL Project and the Malaysia Rail Link Sdn. Bhd. (MRL), aiming to provide 1,800 jobs for Malaysians during the construction phase of the project and 3,200 jobs during the operation and maintenance phase. As part of the social responsibility program of the ECRL Project, This Plan guarantees job opportunities for trainees who complete their training.

In 2023, the ECRL Project held 9 in-person job fairs and 6 virtual job fairs, covering 8 states in Malaysia. A total of 1,680 people enrolled, of which 275 were employed after training. The program has partnered with 21 educational institutions.



This program will provide graduates with the opportunity to return to their hometowns and contribute towards the successful implementation of the ECRL Project.

—Anwar Ibrahim, Prime Minister of Malaysia



► Training for Tanker Drivers



► Training for Site Technicians

Project supports the cultivation of local technical talent in Malaysia

Case

In November 2023, Xinhua News Agency released the reports entitled *Visiting the production site of 500-meter Long-Welded Rail for East Coast Rail Link in Malaysia* and *Discussing New Opportunities in China's Economy : Newsletter: "Growth Opportunity, Better Self" - PLKI-ECRL*. Through both video and written formats, the reports delved into the project construction site, highlighting the excellent performance of local technicians, such as Gunaseelan, and showed the efforts and contributions made by the project to the training of Malaysian technical talents. The project has trained approximately 1,100 technical personnel for Malaysia through the "PLKI-ECRL", and plans to train more local railway professionals in the future.



"ECRL Project does not only brings about cooperation in the railway field, but also promotes local industrial development and talent development."

—Loke Siew Fook,
Minister of Transport Malaysia

Project held "Expert Class" Railway Specialized Technical Training

Case

On October 23, 2021, in order to implement the compulsory training requirements for employees, accelerate the organization construction of learning-oriented projects, improve the profession capabilities and comprehensive accomplishment of employees, and strengthen professional technical backbone of railway skills, the Headquarter of CCC ECRL carried out the "Expert Class" railway special technical training with approximately 300 people participating in the training.

The training covered professional technology, business negotiation, technical innovation and other aspects, which reflecting both the technical and cultural heritage, and laid a solid technical foundation for the high-quality and high-speed promotion of ECRL Project. The phase-I course of "Expert Class" held by the Headquarter consists of 41 lec-

tures. The training focuses on specialized knowledge of railway as the main content, and involves the development history of high-speed railway in China, railway four-electricity (communication, signaling, electricity and electric traction power supply), railway operation and maintenance vehicle, railway station yard, railway signal, railway electrification and railway freight transportation.



The ECRL Project and Liuzhou Railway Vocational Technical College Signed the Memorandum of Understanding on Joint Construction of ECRL Project Technology Training Center (Employee Training Base)



On December 9, 2023, the Headquarter of CCC ECRL and Liuzhou Railway Vocational Technical College (hereinafter referred to as Liuzhou Railway Vocational Technical College) held a signing ceremony in Kuala Lumpur, and both parties signed the *Memorandum of Understanding on Joint Construction of ECRL Project Technology Training Center (Employee Training Base)*. This signing indicates that both parties intend to jointly build the ECRL Project Technology Training Center (Employee Training Base), jointly study and formulate training standards, quality control measures, and organizational management system, and to cultivate skilled, application-oriented professionals for the project's operation and maintenance.



Focus on Humanistic Care

We adhere to the employee-centered work orientation, continuously pay attention to the life and health of employees, focus on addressing the concerns of employees, enrich the leisure cultural life of employees, actively improve the working environment of employees, build sports facilities such as football field, basketball court, badminton court, table tennis and gymnasium. We strive to create a healthy, comfortable and harmonious working atmosphere, fully respecting the different living habits of employees from different countries and nationalities, and responding proactively to local employees' needs to ensure they feel the warmth of "home".



► Provide a range of sports facilities at the basecamp



► Hold the 2024 "Dragons Rising and Tigers Leaping, Achieving Immediate Success" Spring Festival Gala



► Local employees participate in recreational and cultural activity



► Celebrate Hari Raya Aidilfitri with Muslim employees



► Organize Women's Day activity

Project Held 2023 "Strong Forward Cup" basketball tournament



On September 10, 2023, the final of 2023 "Strong Forward Cup" basketball tournament for the ECRL Project was held in Section 6, and the entire match was broadcast live on the short video platform. With the theme of "Strong Forward", this match hoped that everyone continued to maintain and build upon the drive and enthusiasm in the first half of the year, continued to work hard with the attitude of "re-start" and a more fuller working state, and made great progress in the labor competition of "creating high-quality products, ensuring safety and raising the climax of civil construction" in the second half of the year, so as to clearly reflect the main purpose of this activity in the process of project construction and implement it to the actual posts.



United in Adversity and Sharing the Achievements of Development

We continuously enhance strategic cooperation with various stakeholders, uphold the principles of responsibility in our partnerships, focus on building a sustainable supply chain, cooperate with upstream and downstream partners of the industry to carry out cooperation and exchange, realize complementary advantages, mutual benefit and win-win results, accelerate economic and social development, and jointly create sustainable development value.

Build a Sustainable Supply Chain

ECRL Project is committed to a win-win development philosophy, continuously strengthens the cooperation with local suppliers, establishes the integrated management and control mechanism of procurement and supply, expands the supply channels, standardizes the code of conduct and service standards of suppliers, actively encourages suppliers to fulfill their social responsibilities, emphasizes localized procurement, continuously promotes the local economy, and realizes the objectives of information sharing, resource integration, risk sharing and benefit sharing.

"Three-step" management method for suppliers

The declaration must be "real".	Malaysia suppliers need to apply for registration and access through the platform and upload company registration documents, financial reports, technical personnel, self-owned production equipment, performance and other relevant data.
The audit must be "strict".	CCC ECRL shall conduct strict evaluation according to the admission standard, fully study the supplier qualification, production capacity, technical capacity, and enter the qualified supplier database after selection.
The tracking must be "excellent".	The General Management Department shall evaluate suppliers according to the qualification and performance documents regularly updated on the platform to ensure the dynamic management of qualified suppliers. Meanwhile, in June and December of each year or in case of serious breach of contract during the execution of the supply contract, the supplier performance evaluation shall be organized, the unqualified suppliers shall be evaluations on blacklist, and their participation in the procurement project shall be restricted as required.

Key Performance · 2023

- **59** local suppliers registered on the resource sharing platform (**2,409** in total)
- **1,890** times (**4,672** times in total) of local online centralized purchasing and decentralized were carried out, with an accumulated localization procurement rate of approximately **86%**

Establish a Local Resource Sharing Platform



In order to further strengthen the management of local suppliers and realize the sharing of local resources, CCC ECRL has established a local resource sharing platform, which can implement the processes of supplier access, approval, bidding and bid determination, and support the automatic statistics and export of information data in multiple dimensions. On the one hand, it strengthens the management of suppliers and procurement, selects qualified and capable suppliers for the project, realizes the function of data statistics, and responds to the requirements of localization management of the project. On the other hand, after the continuous updating and improvement of supplier

data, the database of local suppliers with detailed and reliable information has been formed, which has accumulated resources for the localization development of the company.



Project Awards for Local Contractors and Suppliers



Nearly 2,000 contractors and suppliers from Malaysian are involved in the construction of ECRL Project. In order to promote the healthy cooperative relationship between the two parties, the ECRL Project has awarded the "2023 Excellence Award" to 20 local contractors and suppliers who have shown outstanding performance in health, safety, and environmental protection (HSE) management, quality management, schedule management, and resource allocation through layers of screening and strict control. Up to now, it has awarded the "Annual Excellence Award" to local suppliers for four consecutive years.



Collaborate for Win-Win Situations

We adhere to the cooperation idea of "facing worldwide, coordinating internal and external, promoting collaboration", fully integrate the advantages of internal and external resources, constantly improve the collaborative development mechanism among sub-industry chains, strengthen the strategic cooperation with upstream and downstream companies in industrial chains at home and abroad, introduce international and local well-known consulting companies such as AECOM, MOTT, Atkins, PTK and HSSI, and other top consulting companies in China such as China Academy of Railway Sciences, China Railway Design Corporation, China Railway Siyuan Survey And Design Group Co., Ltd., to jointly create the "world-class" project. We explore the establishment of exchanges and cooperation with the Malaysian government, well-known institutions in various business fields, colleges and universities, etc. In 2023, the ECRL Project signed strategic cooperation agreements with various government institutions and universities such as Tunku Abdul Rahman University of Management and Technology, and Pahang Skills Development Center. So far, the memorandum has been renewed with 13 local universities and industry organizations.

The Prime Minister Witnessed the Groundbreaking of the First Station of ECRL Project



On May 12, 2023, the commencement ceremony of Kota Bharu Station of ECRL Project was held in Kota Bharu, capital of Kelantan. Kota Bharu Station is the first station to commence construction for ECRL Project, marking that the construction of ECRL Project has shifted from foundation construction to station building construction, and officially entered the construction peak period. Anwar Ibrahim, Prime Minister of Malaysia, Ahmad Yaakob, the Minister of Kelantan, Loke Siew Fook, Minister of Transport of Malaysia, Tan Sri Dato' Seri Mohd Zuki Ali, Sdn Bhd, the Chairman of Malaysia Rail Link (MRL), and Liu Hui, the in-

dependent non-executive director of CCCC, attended the commencement ceremony.



ECRL Project plays an important role in promoting the balanced economic development of the East and West Coasts. It can drive investment and business activities, create employment opportunities, provide high-quality training, and promote the development of tourism, manufacturing and other industries in the East Coast Economic Zone.

—Anwar Ibrahim, Prime Minister of Malaysia

Universiti Malaysia Pahang Awarded "Best Industry Partner Award" to ECRL Project



On March 21, 2023, the Universiti Malaysia Pahang (UMP) held a "Quality and Innovation Day" ceremony at Kuantan campus. After careful evaluation, the University decided to award the "Best Industry Partner Award" to CCC ECRL Project in recognition of the solid achievements made by both parties in promoting the implementation of "PLKI-ECRL" over the years.



Fostering Unity and Strengthening Our Community

We always adhere to the concept of "Connecting lives and Accelerating growth", commit ourselves to jointly building a harmonious community and jointly promoting the development of the community, deeply understand and consciously respect the local customs and religious beliefs, pay attention to the impact of the project construction on the development of the local community, timely understand the needs of the local community, deeply participate in the construction and development of the community along the project alignment, and devote ourselves to building an inclusive and friendly community.

Promote Cultural Exchanges

We proactively establish communication mechanisms with local communities along the project area, ensuring we understand and meet their expectations and needs, fully respect the local religious culture in Malaysia, deepen the communication, enhance friendship and promote the establishment of harmonious and friendly community relations by setting up prayer rooms in the camp and timely adjusting the business hour during Ramadan.

Painting East Coast Rail Link, Travel with Love



On the eve of International Children's Day 2023, employees of ECRL Project arrived at Jalan Padang Primary School, Kuantan, Malaysia. While sending gifts to children for International Children's Day, they also drawn pictures together with children, to express their prospect about the future operation of ECRL Project.



► Organize Dragon Boat Festival activities in local Sekolah Kebangsaan

► Paint pictures of the ECRL on the wall in Maniselada Village, Terengganu

Enhance Local Livelihoods

While focusing on the project construction, we pay close attention to improve the livelihood conditions of the project site, repay the society and benefit the people's livelihood, give full play to our own advantages, repair roads of the areas along the project, improve the public environment and the local infrastructure level, make positive contributions to the development of the service community, accurately obtain appeals of communities around our project, and carry out social public welfare activities such as donation and consolation for the elderly.

Emergency Flood Control and Canal Repair During Rainy Season



On April 22, 2024, Xinhua News Agency published the article *Building Roads and Canals, ECRL Project Diverting Water into Culverts' to Alleviate People's Worries*, reporting the livelihood project of ECRL Project for helping local flood control and waterlogging resistance. The 1st construction site of Section 8 of ECRL Project is located in Tabika KEMAS Batu 11 Gombak, where the nearby villages are in low terrain and the drainage facilities are backward. The rainwater in flood season cannot be removed in time, which seriously affects the villagers' travel and has certain potential safety risks. The project is close to the residential area, and the excavation volume is large. After full communication among the ECRL headquarter,

local government, competent department and relevant cooperative units, Section 8 has carried out many site surveys and finally determined the implementation plan, and jointly decide to build a drainage channel of more than 400 meters in length based on the original earth ditch, and introduce water to CV004 culvert of No.5 subgrade to solve the problem of ponding in the village at one time.



"The pothole road is flat, the road ponding is gone, and the travel is finally convenient. Thanks to ECRL Project for doing such a great job for our village."

- Khairul Ikhwan, head of Sungai Salak Village, Selangor State



Scan to learn more
Xinhua News Agency reported that ECRL Project Diverting Water into Culverts' to Alleviate People's Worries



► Organizing and Carrying Out the Rescue Work After the Daerah Bentong "12·19" Flood Disaster



► Assist PAIP with Emergency Repair of Burst Water Pipe

Emergency Rescue Conducted by the Project in Response to Unexpected Fire



On the afternoon of April 10, 2023, a fire occurred at a garbage dumping point near Bridge 17 of Section 2 of ECRL Project. Section 2 dispatched the sprinkler responsible for road cleaning near Bridge 13 to the fire site at the first time, and arranged flagmen to command the traffic. The safety officer, the environment officer and the traffic officer worked together, with clear division of work and coordination on the site. 45 minutes later, the on-site fire source was successfully extinguished before the arrival of the fire engine, avoiding the secondary safety risk caused by the fire spread, and protecting the life and property safety of the surrounding people.





► Visit the disaster victims at the scene of the fire in Karak and hand over the relief fund

Project Donated Supplies to Schools Affected by Floods in Terengganu



On January 27, 2023, some areas of Dungun suffered from floods again. After learning about the relevant situation, Section 4 of ECRL Project organized rescue personnel and equipment to the nearby schools and residential areas to carry out rescue, contacted Dungun Land Bureau and other government agencies to understand the needs of the affected residents at the same time, and quickly organized personnel to purchase relevant supplies and hand them over to rescue agencies. After the flood receded, Section 4 continued to pay attention to the recovery of production and life of the affected residents. On February 10, Section 4 participated in a donation event held at SK Durian Mentangau Primary School in Dungun, Negeri Terengganu, to deliver relief materials to flood victims.



► Donate supplies to Benus for flood emergency rescue



► Go to Lembing for flood fighting and disaster relief

Love the Home for the Aged, ECRL Send Warmth



On March 9, 2024, Section 10 of the ECRL Project carried out a sympathy activity under the theme of "Love the Home for the Aged, ECRL Send Warmth" and visited the elderly in Elderly Home of Malaysian Chinese Community in Kuantan. On the day of the activity, young employees of the project warmly greeted the aged and distributed consolation articles. The aged people felt the long-lost warmth and love, their face brimmed with happiness and happy smile. This activity enhanced the communication between the project and local public welfare organizations and won the trust of local residents.



► Donate to Mentakab Orphanage



► Carry out voluntary service activities in the Elderly Home of Mentakab Welfare Institute



E



Chapter 3 - Environment

Connecting Dreams and Pursuing
Sustainable Development



CCC ECRL Project adheres to the green development concept throughout the whole project cycle, attaches great importance to the impact of the project construction on the ecological environment of the region where it is located, promotes better integration and development of railway construction and natural environment, and works hard to build a "green railway" with ecological civilization and sustainable development throughout the whole project cycle.

Prioritizing Environmental Protection and Embracing Green Practices

We always adhere to the development concept of "Five-Green Construction", practically execute in green planning, green design, green technology, green construction and green cooperation, determinedly implement the new development concept of innovation, coordination, green, openness, and sharing, constantly improve the top-level planning of environmental management of Green Railway, and have been awarded the "Sustainable INFRASTAR" five-star certification (the highest level) evaluation certificate by the Construction Industry Development Board of Malaysia Government, which reflects the high recognition of the local government for the environmental management of ECRL Project. The health, safety and environmental protection (HSE) team of ECRL Project was awarded the honorary title of 2023 Environmental Protection Excellent Team of CCCC.

Focus on Green Planning

Since the launch of the ECRL Project, we have steadfastly implemented the new development concept of innovation, coordination, green, openness, and sharing, and continuously improved the top-level planning of environmental management for "Green Railway".

Comprehensively plan and manage green construction and environmental protection in line with Malaysia's environmental laws and regulations, and jointly establish the Environmental Management Compliance Committee chaired by the general manager of project in conjunction with the MRL.

Establish and improve the environmental management system of the project, prepare Environmental Impact Assessment report (EIA), Social Impact Assessment report (SIA), Heritage Impact Assessment report (HIA), Wildlife Management Plan (WMP), Environmental Management Plan (EMP), Earth and Sediment Control Plan (ESCP) in advance, and submit them to relevant environmental protection departments for approval.

Green Planning

In collaboration with MRL, we established an ENVIRONMENTAL REGULATORY COMPLIANCE MONITORING COMMITTEE, which holds regular meetings of the Environmental Management Committee, conduct environmental risk and hazard assessments, provide top-level design and decision on specific measures for environmental protection of the project, provide guidance for infrastructure planning and design of the project in feasibility study stage, design stage, construction stage and operation and maintenance stage, and provide technical reference for the construction of "green railway".

Adhere to environmental protection commitments, implement environmental measures, enhance the early warning mechanism, carry out emergency drills, and ensure the absence of environmental protection complaints from local society and environmental punishment by local government.



► Prepare and improve the environmental management system documents of the project



► Regular convene The ERCMC Management Committee



List of Honors



► Awarded the Environmental Protection Outstanding Contribution Award by Pahang Environmental Protection Bureau



► Awarded Environmental Protection Outstanding Contribution Award by DOE of Selangor State



► Awarded the Five-Star Certification for "Sustainable INFRASTAR"



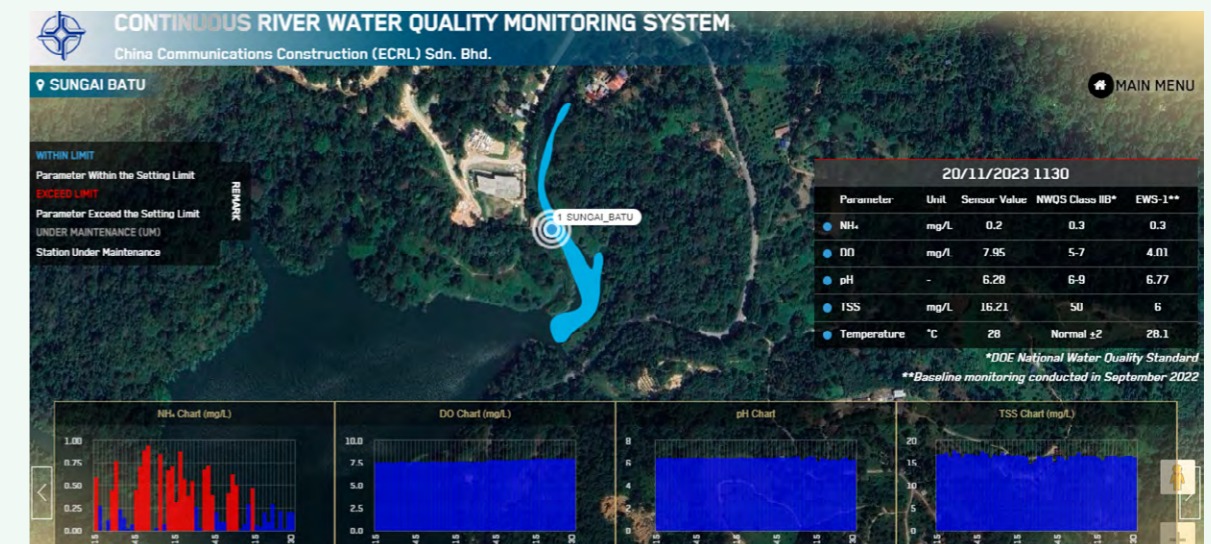
► Awarded the 2nd "Jinlan Cup" ESG Environment Excellence Case Award by Xinhua Credit

Real-time Water Quality Pre-Warning System Ensures Water Safety of Urban Residents



In August 2023, Section 8 of ECRL Project held the ceremony of putting into operation of real-time water quality early warning system at Batu Dam near 1# inclined shaft of Serendah Tunnel, which is the first public welfare facility for water quality monitoring undertaken and put into operation by an enterprise in Malaysia. Batu Dam is located at the upstream of Kuala Lumpur, about 16km away from city center, and it is an important water source and forest protection area in Kuala Lumpur and surrounding areas. The water quality early warning system can monitor important parameters such as pH value, Total Suspended Solid (TSS), Dissolved Oxygen (DO), Ammonia Nitrogen

(AN), and temperature of the water body flowing into the dam in real time, manage the water quality condition of the water source area in time, and pre-warn major or sudden water pollution accidents, thereby provide solid guarantee for the water safety of the surrounding core city groups.





► Carry out the water quality monitoring near the river

Pursuing Clear Waters and Blue Skies and Building Green Projects

We aim to build a typical environmental protection demonstration case of the Belt and Road Initiative, integrate the green development concept into the whole life cycle of the project, actively fulfill the environmental responsibilities of the enterprise, highlight the enterprise's green development leadership, and build a modern railway that combines the beauty of engineering, the beauty of technology, the beauty of nature and life for Malaysia.

Adopt Green Design

The ECRL Project is a typical long-distance linear transportation project, overlapping with several eco-sensitive areas in Malaysia. We insist on promoting green engineering design, integrating the concept of green development into the project planning and design, and continuously reducing the impact on the local ecological environment in terms of line selection, wildlife and ecosystem protection, noise impact and other preliminary design aspects.

Route optimization

In the process of route selection and design of the project, by focusing on the rational utilization of the existing right of way and the full utilization of the abandoned railways, the route is optimized for many times to bypass the eco-sensitive areas. There are channels, bridges and culverts designed for animals to pass through among the whole railway line, and the affected area of the forest reserve is reduced by 89.2%.

Noise prevention and control

Considering the impact of noise on the surrounding environment and residents in advance, we cooperate with Universiti Teknologi Malaysia (UTM) to jointly carry out special research on the noise impact during the construction period and operation period of the railway, formulate a complete set of prevention and control measures, prepare the sound barrier design and installation scheme, and effectively reduce the impact of the project implementation on the surrounding environment.

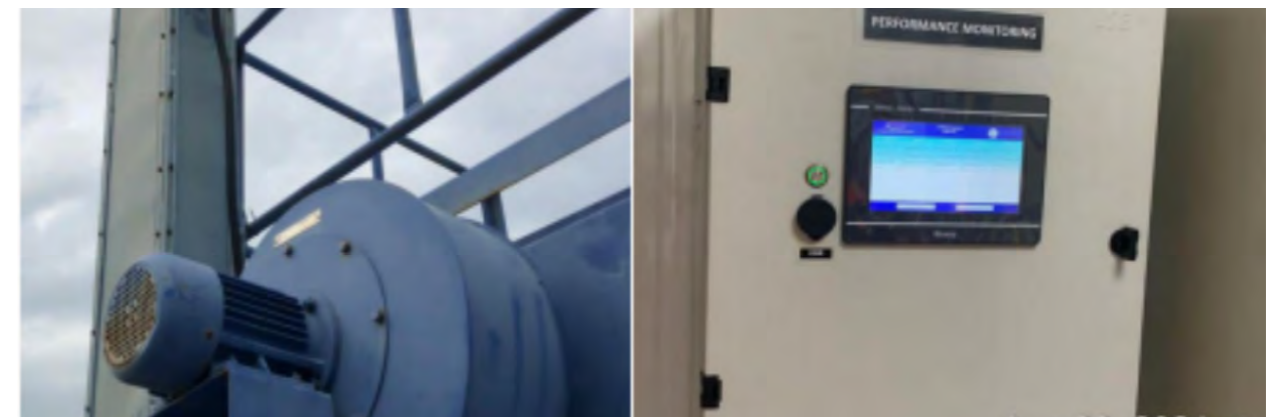
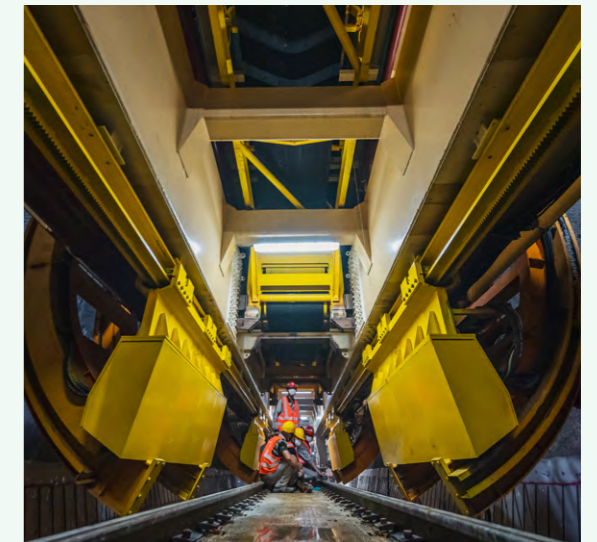
Explore Green Technology

We always practice the management requirements of low carbon and environmental protection, integrate the green development concept into equipment application, fully consider environmental protection factors in equipment selection, construction technical scheme, raw material procurement, etc., and adopt advanced processes and emerging technologies to minimize possible pollution risks. At the same time, through the large data collection of the system, we can scientifically analyze the prominent problem on the site, reduce unnecessary resource consumption, and provide scientific and timely support for the key areas and work direction of the site environmental management.

New Technology and Process of Genting Tunnel to Solve the Challenge of Ventilation and Dust Removal



The total length of Genting Tunnel is 16.39km. It is designed as a double-hole one-way tunnel, connecting Bentong and Gombak. After completion, it is the longest tunnel in Southeast Asia and the main control project for the whole alignment of ECRL project. Two open-type hard-rock Tunnel Boring Machines (TBM) independently developed and designed by CCC are used for the construction of Genting Tunnel. The equipment has the largest diameter in equipment exported from China, represents the advanced level in the world, and is also the open-type hard-rock TBM with the largest diameter and longest driving distance in Malaysia so far. It will greatly solve the problems of ventilation and dust removal in the construction process of ultra-long tunnels by the traditional "drilling and blasting method".



► By installing dust filter device for concrete mixing station, the self-purification rate of waste gas in mixing station was increased from 95% to over 99%, which won the recognition of environmental protection departments at all levels in Malaysia.

Innovative Technology Assists in Emission Control

Case

In the process of tunnel construction, due to the complex excavation process, blasting and excavation that will disturb the surrounding soil and groundwater, and a large amount of sewage and pollutants will be produced in the process. The concrete mixing station inevitably produces a large amount of waste water in the production process. The waste water does not only contain sand, cement and other conventional building materials, but also contains various types of concrete additives. If it is directly discharged, it will cause serious pollution to the natural environment. Therefore, by introducing new environmental protection technologies and equipment such as filter press, mud water separation device and pH value adjustment system the project reduces the impact on the water quality of surrounding water body during tunnel construction and

mixing station operation, and obtains obvious economic and social benefits.



► Mud and water separator



► Waste water circulation system



Implement Green Construction

We pay attention to the comprehensive consideration of environmental impact and resource efficiency, continuously improve the process and construction method during the construction process, seriously implement the ecological environment restoration work in the construction area, root the green construction requirements in the project construction details, practically fulfill the environmental protection commitment of green railway construction, take the approved environmental management plan (EMP) and earth and sediment control plan (ESCP) documents as the work guidance basis of on-site best management practices (BMPs), implement the on-site "environmental protection and water conservation" measures, and reduce the interference and impact of the project on the environment.



Sewage



We carefully plan the water flow route, on-site filtration and purification measures, off-site connection and terminal drainage outlet, control the quality of sewage below the four-level standard (purification and recycling of water body), and improve the recycling rate of water resources. We set sedimentation tank and temporary drainage system as required to avoid direct discharge of construction slurry into surrounding rivers and reservoirs.



Fugitive dust



The project shall be constructed in sections to minimize the impact on the surrounding residents and natural environment. Dust-proof turf net and geotextile shall be used for effective dust control in the construction site. The excavation area and side slope along the alignment shall be sprayed with grass seeds in time, and grass shall be planted for reclamation to reduce the rate of water and soil loss.



Schedule waste



For the solid wastes and surface clearing vegetation generated in production and living, the designated stacking area shall be planned in advance, the waste products and materials shall be recovered and disposed, and a qualified professional company shall be arranged for centralized treatment. Open fire burning and illegal activities affecting the ecological environment are strictly prohibited.



Hazardous chemicals



For hazardous chemicals that may be involved in the project, the risk factors shall be evaluated in advance and approved by relevant departments in advance. Professional companies and institutions shall provide professional services in production, transportation, storage and emergency disposal, so as to realize full-cycle green environmental protection during use.



► During the project implementation, ecological protection such as slope management at the construction site should be effectively done to create a green project



► Water and soil conservation measures in tunnel construction

Strict environmental monitoring and environmental audit:



A qualified third-party environmental audit and monitoring agencies shall be engaged to conduct environmental monitoring and environmental audit regularly along the project, to regularly monitor the air and river water quality, vibration, noise and other indicators along the line, and to continuously assess the impact of the project construction on the surrounding environment. Automatic water quality monitoring devices shall be arranged in environmentally sensitive areas (such as the surroundings of Batu Dam) to provide a thick firewall for the drinking water safety of residents in the urban core area, which is recognized by the environmental protection bureau, water bureau and water supply company of the prefecture.



► Air, noise and vibration monitoring

Construction of green camp benchmark:



Carry out scientific overall planning for the construction of the whole alignment of camps, adapt measures to local conditions, and create green, energy-saving, environment-friendly and beautiful campsites. Use solar energy equipment to create an energy-saving camp; Equipped with oil pollution purification system to create an environment-friendly camp. Use the original palm trees to create a garden-style camp. In the activity of "Overseas Project Camp Showcase" jointly organized by *International Project Contracting & Labour Service* and Beijing Chengdong, the main camp of Section 6 of ECRL Project won the award of "Outstanding Overseas Engineering Camp".



► Construction of green camp



► Road lighting project adopts solar clean energy

"Green Construction" of Project protects the Clear Waters and Lush Mountains



Section 8 passes through forest protection area, water source area and local residential area in many places. In particular, Gombak Tunnel in Construction Site 1 is located in Selangor State. It is close to Kuala Lumpur with beautiful mountains, waters and fresh air. It is also located at upstream of Gombak River, an important water source area in Kuala Lumpur. Most of the water system in the tunnel area flows to the lower reservoir and water source area, which is the main source of domestic and production water in the residential area below. The tunnel construction in the forest nature reserve is easy to destroy the ecological environment and is very sensitive to environmental disturbance. At the beginning of entry, Section 8, following the concept of "environmental protection first", established an environmental protection working group, hired local HSE safety officers to conduct regular inspection and guidance, and hired environmental consultants to prepare environmental impact assessment (EIA), erosion and sediment control plan (EMP), ESCP. The construction team actively maintained good communication with the local environmental protection department and MRL, jointly carried out environmental and water conservation activities, and gradually improved the environmental and water and soil conservation plan, which was highly praised by many parties. For the exposed part of the project, ECRL focuses on greening temporary side slope to prevent water and soil erosion, covers bare soil on site, improves the drainage system, sets up the sedimentation pond reasonably, installs the silt fence, conducts enclosure of construction site, and provides noise barrier.

The lively river water, the shady green trees and the flowers of brocade cluster present a beautiful scene on the construction site. Due to the standards of sewage treatment and environmental protection work, Section 8 of ECRL Project once became a typical benchmark of this bid section, won the award of environmental excellence contribution awarded by Selangor State of Malaysia, won high praise from many parties in the environmental protection management appraisal of MRL in 2023, and won the first place of the whole alignment.



"The environmental protection work of CCC is indeed a livelihood project benefiting the Malaysian people."
- Malaysia Rail Link Sdn Bhd (MRL)

Devotedly Protecting and Nurturing Green Eco-system

We actively organize and participate in the activities of wildlife protection and social environmental protection, comprehensively implement the ecological management objectives from various angles, implement ecological protection measures, ensure the well-being of wild animals and their habitats along the alignment of ECRL Project, and strive to realize the harmony between man and nature.

Develop Green Cooperation

We pay high attention to the impact of railway construction and subsequent operation on the local natural environment, commit to biodiversity work, take more wildlife protection measures, integrate animal protection awareness into daily work, maximize the protection of more than 30 species of active wild animal along the alignment, such as tigers, malay bears, elephants and malay tapirs, and take various measures to reduce the impact on local forests. The affected area of the forest reserve has been reduced from the original more than 2,000 hectares to the current 216 hectares, with a reduction of 1784 hectares, representing a reduction rate of 89.2%.

During the construction of the project, the project alignment shall be optimized to reduce the number of railways to pass through the forest reserve. More than 20 wildlife crossing channels, bridges and culverts shall be designed on the whole line to facilitate the migration and passage of wild animals.

We invite local wildlife protection bureaus at all levels to conduct professional training, issue the *Wildlife Identification and Protection Manual*, set up signs, post emergency guidance display boards, install satellite positioning collars for wildlife, expand wildlife habitats, set up safety checkpoints, and conduct periodic patrols.



► On February 27, 2018, ECRL Project and Ministry of Natural Resources and Environment of Malaysia signed the *Memorandum of Cooperation on Wildlife Management Plan*



► On September 30, 2022, the ECRL Project signed a supplementary agreement to the Wildlife Management Plan, where both parties will work together to ensure the railway construction process is environmentally compliant and committed to biodiversity



► Take the initiative to invite local wildlife protection bureaus at all levels for professional training, issue the *Wildlife Identification and Protection Manual*, set up signs, and post emergency guidance display boards



► The staff installed the GPS positioning collar for the elephant

Participate in the Social Responsibility Activity of Malayan Tiger Conservation in Malaysia



On September 12, 2023, more than 100 people from MRL and ECRL Project went to Malaysia Pahang Malayan Tiger Conservation Center for tree planting activities, so as to improve the ecological environment in the Malayan Tiger Enclosure. Malayan tiger is a subspecies of tiger, which is mainly distributed in Thailand, Malaysia and other places. Malaysia's official data show that the country's wild Malayan tiger population is about 150. The "Cooperation Plan for Strengthening the Habitat of Malayan Tigers" includes three stages, the first stage covers soil treatment, lime application and fertilizer application, the second stage involves tree planting, and the third stage focuses on tree conservation, pruning and fertilizer application in the conservation centre. This program aims to promote the conservation awareness of the Malayan tiger and assist the Peninsular Malaysia Wildlife Conservation and National Parks Authority and the Malayan Tiger Conservation Centre to achieve a long-term plan for the protection of the Malayan Tiger population and facilitate the breeding of the Malayan Tiger.



Collaborate with Pahang State Wildlife Conservation Bureau to Complete Site Survey in KEMASUL Area



On June 9, 2023, ECRL Project conducted a site survey on KEMASUL Wildlife Conservation Area in conjunction with the Pahang State Wildlife Conservation Bureau. During the activity, visitors visited the animal access culvert along the ECRL Project to learn about the geology and geomorphology of the surrounding forest area, and also conducted the investigation and verification of biological species and ecosystem along the main alignment of KEMASUL area. After communicating with the field engineers, the professional researchers in Wildlife Conservation Bureau said that this visit provide a more accurate, detailed and verifiable visual data source, laying a solid foundation for future wildlife conservation programmes.



Promote Green Culture

We always practice the concept of green development, continuously promote the improvement of green environmental protection work, constantly improve the awareness of green development, regularly organize and hold green culture publicity activities, and carry out series of environmental protection day activities with the theme of "World Earth Day" and "International Day for Ozone Layer Protection". We have held environmental protection activities such as "Tree Planting Activity of Malayan Tiger Conservation Center", "East Coast Sustainable Development Carnival" and "Our River, We Take Care of it" and other environmental protection activities with the government departments of Pahang, Terengganu and Selangor State. Through low-carbon cycling, peatland fire testing, and resistance to the recycling of disposable plastic products and waste electronic products, we aim to popularize knowledge about natural resources and environmental protection to the general public, and promote the concept of ecological civilization of harmonious coexistence between humans and nature.



► Carry out series of environmental protection day activities with the theme of the National Earth Day and World Ozone Day



► During the World Environment Day in 2023, ECRL Project carried out the environmental protection theme activity of "Beat the plastic" on the beach of Terengganu State to protect the marine environment safety



► On October 23, 2023, ECRL Project was jointly invited by the Environmental Protection Bureau of Terengganu state and the Universiti Sultan Zainal Abidin to participate in the East Coast Sustainable Development Carnival



► Actively organize afforestation activities to reduce greenhouse gas emissions

Clean-up at Sungai Dua Leisure Forest



In conjunction of Malaysia's National Environment Day in 2023, 200 volunteers from ECRL Project and community members gathered at the Hutlita 2 Leisure Park for a clean-up. The volunteers were equipped with gloves, garbage tongs, rakes and garbage bags and divided into groups to carry out a two-hour clean-up activity in corners of Sungai Batu, including picking up various kinds of garbage. More than 25 bags of garbage and waste were removed at Hutan Lipur Sungai Tua in Selangor State Park.



"Today's clean-up shows our shared responsibility to preserve Malaysia's natural beauty. We are not only committed to environmental protection during the national environmental protection day, but also have more continuously integrated the concept of environmental sustainability into the daily construction work to ensure the harmony between the progress of facilities and the conservation of nature."

—Headquarter of ECRL Project

Future Outlook

During the meeting with President Xi Jinping, Anwar Ibrahim, Prime Minister of Malaysia, said that the ECRL Project is a “road bridge” connecting the east and west coasts of Malaysia and it is a landmark project for China-Malaysia joint construction of the Belt and Road Initiative. Leaders of China and Malaysia pay close attention to the ECRL Project, and the project’s influence has been significantly improved, which is an honor, a responsibility and an unprecedented opportunity.

The year 2024 is the “ASEAN-China Year of People-to-People Exchanges”, the 50th anniversary of the establishment of diplomatic relations between China and Malaysia, and also the “Year of Tackling Difficulties Along the Whole Alignment” of the ECRL Project. In future, let’s continue to maintain a high quality, high efficiency and high quality project, listen to the expectation and demands of the stakeholders, and build a good development cycle of shared responsibility, harmonious coexistence, cultural co-development and common contribution with the local government, employees, partners, communities and other stakeholders, so as to promote the policy communication, facility connection, smooth trade, financing and communication of people’s hearts between China and Malaysia with steady and effective practical achievements, and build a high-quality project for the benefit of the local people, create a mutually beneficial and win-win cooperation link, play a beautiful piece of music to know each other!



Appendix

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Feedback

Dear readers,

Hello!

Thank you very much for reading this report during your busy schedule. This is the first ESG report issued by CCC ECRL Project. In order to improve the preparation of the report and enhance the responsibility performance ability of the CCC ECRL Project, we particularly hope to listen to your comments and suggestions. Kindly give us your advice!

Your Feedback

1. Which of the following stakeholders do you belong to?

Government officers Regulators Shareholders and investors Employees
 Customers Suppliers and partners Community residents Other

2. What is your overall comment on this report?

Good Better Average Relatively Poor Poor

3. What do you think about the quality of the social responsibility information disclosed in this report?

High Relatively High Average Relatively Low Low

4. What do you think about the structure of this report?

Very reasonable More reasonable Average Relatively Poor Poor

5. What do you think about the layout of this report?

Very reasonable More reasonable Average Relatively Poor Poor

6. What do you think about the readability of this report?

High Relatively High Average Relatively Low Low

7. We welcome your opinions and suggestions on this report:



中国交建马来西亚东海岸铁路项目总经理部
CHINA COMMUNICATIONS CONSTRUCTION (ECRL) SDN. BHD.

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