Chiyu Fujian-Hong Kong ESG Index Report

June 2024

Gulangyu and Lujiang Street, Siming, Xiamen, Fujian.

集友銀行
Chiyu Banking Corporation Ltd.

CECEP ENVIRONMENTAL CONSULTING GROUP
中國節能皓信環境顧問集團

The report was prepared by CECEPEC

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Grassland and Lake in Yuanyanbgtou, Ningde, Fujian.

01 Executive Summary

This is the second Chiyu Fujian-Hong Kong ESG Index Report jointly launched by **Chiyu Banking Corporation Limited (Chiyu Bank) and CECEP Environmental Consulting Group Limited (CECEPEC)**. Our latest research shows that the Chiyu Fujian-Hong Kong ESG Index ("Main Index") reached **123** points in the second half of 2023, with a year-on-year growth of **5.1%**. Additionally, over the same period, the Fujian Province Sustainable Development Index and the Fujian-Hong Kong Cooperation Sustainable Development Index both reached 127 points, with year-on-year growth rates of **4.1%** and **8.5%**, respectively.

In addition to tracking the ESG performance of Fujian Province and the close cooperation between Fujian and Hong Kong in the ESG field in the second half of 2023, this report expands the research horizon to include more local enterprises in Fujian Province and listed enterprises in Hong Kong. Through the case studies, four leading companies have shown their outstanding ESG practices in the areas of environmental protection and hygiene, new energy materials, green buildings, and clean energy. Insights learnt from those cases might inspire these industries for further development in green and low-carbon transformation.

Research and interviews were conducted with four leading companies from Fujian Province and companies listed in Hong Kong. It is observed that the companies are continuously innovating based on their own business and actively engaging in ESG practices. Meanwhile, they are also committed to, or have been active in addressing the climate change issues:

ESG Practice Cases of Four Leading Companies

• Canvest Environmental Protection Group Company Limited

As a forerunner in waste-to-energy ("WTE"), the company has established numerous WTE projects in the Greater Bay Area. By employing innovative technologies, the impact of the incineration process on air and water quality is minimised, thereby reducing the waste of materials as well as the space occupied by landfill disposal. The company has created a garden-style thermal power plant and an environmental protection science research base, changed the public's stereotype of a waste treatment plant and promoted the sustainable development of environmental education.

• Chengtun Mining Group Co., Ltd

To cope with the rapid development of new energy vehicles, the company has made deployment in the lithium batteries and lithium material supply chain in advance. The company has been actively exploring key non-ferrous metal resources in the "Belt and Road Initiative" related countries for the production of lithium batteries. At the same time, the company has made efforts to care for the local community and make sure the mining resources are utilized in a sustainable and responsible way.

• CNQC International Holdings Limited

As a pioneer in using "Modular Integrated Construction (MiC)", CNQC International Holdings Limited is dedicated to bringing MiC into Hong Kong to shorten the construction period and tackle the building component reuse issue of "Transitional Housing" projects, which helps improving citizen livelihood in a green and sustainable way.

• China Shuifa Singyes Energy Holdings Limited

Leveraging its strengths in clean energy, green building, and new materials, the company uses innovative technologies such as Building-integrated photovoltaics (BIPV) and solar photovoltaics/thermal technologies on low-energy-consumption building pilot projects, helping the technology improvement of green building and promote carbon neutrality.

Xinglin Bridge, CRH Xiamen-Shenzhen line, Metro No. 1 Line, Xiamen, Fujian.

Highlights of the Chiyu Fujian-Hong Kong ESG Index in the second half of 2023

Fujian Province Sustainable Development Index reached **127** points, with a year-on-year increase of **4.1%**. The performance of the first-level indicators "Economic Development" and "Sustainable Finance" increased significantly.

Economic Development

There was great progress in the tertiary industry development and innovation level in Fujian Province. The added value of Fujian Province's tertiary industry was RMB 2,717.10 billion, a year-on-year increase of 5.2%. The innovation capability of Fujian Province continued to strengthen in the second half of 2023, with the number of invention patents granted in the province reaching a new high of 9,734 during the research period.

Sustainable Finance

As of the end of 2023, the balance of green loans in Fujian Province was RMB 850.72 billion, with a year-on-year increase of 39.5%, and doubled from the end of 2021. The trading volume and the value of transactions of the carbon emissions trading market in Fujian Province in the second half of 2023 increased by 137.1% and 123.6%, respectively, as compared with that in the first half of 2023.

Fujian-Hong Kong Cooperation Sustainable Development Index reached **127** points, with a year-on-year increase of **8.5%**. Specifically, there was a notable rise in the first-level indicator "Supportive Policies for Sustainable Development". At the same time, the indicator of the "Exchange Activities for Sustainable Development" remained high.

Supportive Policies for Sustainable Development:

The Hong Kong SAR Government issued several policies in the second half of 2023 to support the cooperation between Hong Kong and Mainland China in areas such as the shipping industry, which would facilitate Fujian's products to penetrate overseas markets through the efficient shipping network and international trade platform.

Exchange Activities on Sustainable Development:

Within the context of the full resumption of normal travel between Hong Kong and Mainland China in early 2023, the frequency of exchanges between Fujian and Hong Kong increased sharply in the first half of the year and remained high in the second half. Apart from economic and trade cooperation, Fujian Province and Hong Kong have been deepening exchanges in other areas, including innovation and technology in the second half of 2023.

02 ESG Practices of Excellent Enterprises

Financial Street, Taijiang, Fuzhou, Fujian.

02 ESG Practices of Excellent Enterprises

The following case studies demonstrate the excellent ESG practices of four local enterprises in Fujian Province and listed enterprises in Hong Kong. Insights learnt from those cases might inspire the industry for further development in green and low-carbon transformation.

Case 1: Waste-to-Energy Forerunner, Promoting Sustainable Development through Environmental Education: Canvest Environmental Protection Group Company Limited

The Hong Kong SAR Government is building a modern waste-to-energy ("WTE") incinerator (I-PARK1) on the artificial island near Shek Kwu Chau and expects to commence operation in 2025. Meanwhile, the neighbouring Guangdong Province is moving even faster on the WTE path. One of the forerunners is the Canvest Environmental Protection Group Company Limited ("Canvest", stock code 01381.HK) listed in Hong Kong. Since 2003, Canvest has established a total of 36 WTE projects in 12 provinces and cities in Mainland China, including projects awarded "Eco Challenger", "Grade AAA Innocuous Waste Incineration Plant" and "Eco-Guangdong Publicity and Civilization Award", etc. Through the interview with Canvest, we found out that the company adopted many advanced practices, which provide valuable insights for Fujian, Hong Kong, and neighbouring regions in promoting WTE and environmental protection.

Since 2003, Canvest has established a total of

36

WTE projects in 12 provinces and cities in Mainland China

Creating environmentally friendly projects, breaking the stereotype

Building a popular science research base, promoting the combination of environmental education and tourism

Canvest set up "the Canvest Environmental Protection Science Research Base" in Zhongshan, combining the WTE with education and tourism functions. The whole process of WTE is displayed through the glass wall, which gives visitors an intuitive understanding of the waste burning and resource recycling process and changes people's stereotype about waste treatment plants as dirty and messy.

The Canvest Environmental Protection Science Research Base in Zhongshan

Adopting garden-style plant design to reduce the impact on the surrounding environment, setting up a theme pavilion for environmental publicity

All the plants of Canvest adopt a garden-style design with a high greenery rate. For instance, the thermal power plant park in Dongguan remediated the adjacent closed landfill by extracting and treating buried waste, and the remaining part was re-greened into a hill park opened to the public. Furthermore, the "Environmental Protection Theme Pavilion" was set up in the park to help the public better understand the benefits of WTE.

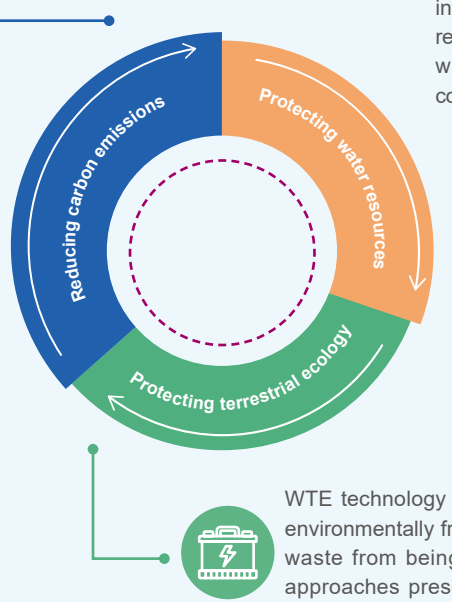
The Canvest Environmental Protection Theme Pavilion in Dongguan

Acting as a forerunner in responding climate change

Canvest actively integrates its sustainability commitments and main business plans with the help of green financial tools to promote low-carbon transition and industry upgrades. The company signed up as a supporting organisation of the Task Force on Climate-Related Financial Disclosures (TCFD) in 2021. Thereafter, the ESG and Climate Risk Management Committee was set up in 2022 to focus on addressing sustainability issues and related strategic opportunities and listed significant climate risks according to TCFD's Risk Analysis Framework. Canvest continues to integrate climate-related physical and transition risks into its strategic and operational planning. It is learnt that Canvest has participated in the development of carbon assets and successfully developed carbon credits under the Verified Carbon Standard (VCS). In the future, Canvest will continue to focus on the new opportunities brought by the carbon trading and carbon asset markets.

Environmental performance and the highlight of Canvest in 2023:

By treating 13.39 million tonnes of municipal solid waste ("MSW"), the operating WTE projects avoided 7.48 million tonnes of CO_2 equivalent emissions. Meanwhile, 4,295 GWh of green electricity has been sold as a substitute for fossil-fueled power.



Most of the leachate and wastewater produced during MSW treatment is appropriately treated and reused on-site, reducing freshwater consumption intensity by 6.52% compared to 2022; The landfill remediation projects, which extract and treat buried waste, help prevent further underground water contamination.

WTE technology adopted by Canvest facilitates sustainable and environmentally friendly waste management strategies, preventing waste from being deposited in land-demanding landfills. Such approaches present the best available solution by far and help avoid harm to the local environment and ecosystems.

Promoting digital technologies, optimising production and management processes

Canvest adopts leading production processes and environmental controls for wastewater, odour, noise and solid waste treatment, ensuring that employees work in a desirable environment.

Taking multiple measures to control odour: In order to prevent accidental spillage of odour, the MSW discharge platforms and storage pools operated by the company are designed with fully enclosed structures to maintain negative pressure.

Managing water stress: To promote sustainable freshwater consumption and alleviate water stress, the company employs advanced leachate treatment systems. Through the use of a range of technologies such as ultrafiltration, nanofiltration, and reverse osmosis, the treated wastewater can be recovered on-site, significantly reducing the consumption of freshwater sources.

How to combine digital technology to facilitate the intelligence of the WTE industry is the priority direction of the industry. Canvest has already carried out the pilot work to apply the digital technology. The intelligent control system in the incinerator makes the entire combustion process more stable and provides better emission control. The implementation of AI-based intelligent waste incineration optimisation could improve energy utilisation efficiency, reduce pollution and enhance operational stability and safety.

The Canvest WTE Plant Intelligent Control Centre in Zhongshan

In the future, the company will further enhance the application of intelligent and digital technology, and optimise production and management processes.

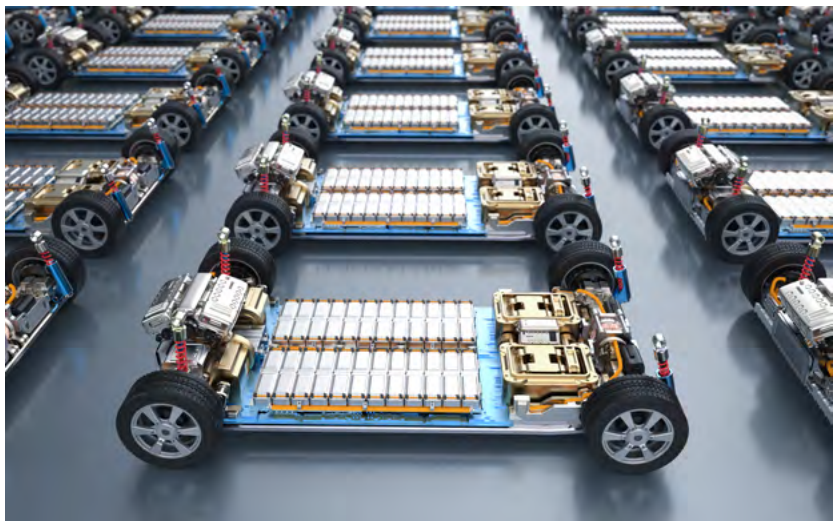
Case 2: Leading the Development of New Energy Materials and Actively Exploring Resources Overseas: Chengtun Mining Group Co., Ltd

Strategising in new energy, controlling resources upstream, and expanding materials downstream

Chengtun Mining Group Co. Ltd ("Chengtun Mining", stock code 600711.SH) is a China A-share listed company based in Xiamen. The company is committed to the development and utilisation of non-ferrous metal resources, especially non-ferrous metal resources required for new energy vehicle batteries. As early as 2018, Chengtun Mining has recognised the potential of the new energy market, actively deploying new energy materials business, focusing on cobalt, nickel, copper, and zinc metal, and building the relevant metal industry chain ecosystem in collaboration with technology-leading enterprises in the lithium battery industry. In recent years, the company has quickened the pace of the global layout of new energy material resources in order to build its comparative advantage and sustainable development capability.

Currently, high-end electric vehicles on the market are popular for their high gravimetric energy density supported by "ternary polymer lithium battery". The lithium battery materials project of Chengtun Mining in Fuquan, Guizhou Province, produces nickel sulphate and cobalt sulphate, which are the key raw materials for the production of "ternary precursors". The by-product sulphuric acid produced from this project can also be used for local phosphate chemical enterprises to produce phosphoric acid, phosphate and other products. Through the collaboration with industrial chains, the company has formed an ecosystem of complementary advantages and shared benefits, which not only improves the efficiency of resource utilisation and promotes the development of the local industry, but also contributes to the enhancement of the production capacity of new energy vehicle batteries in Mainland China, and provides solid support for the ESG practice.

The Lithium Battery Materials Project of Chengtun Mining in Fuquan, Guizhou



Battery Module for New Energy Vehicles

Our interview with Chengtun Mining reveals that the company pays close attention to the environmental impacts of its operations and is constantly strengthening its carbon management. Since 2023, the company has launched a series of carbon management projects, including operational-level carbon emission verification, product carbon footprint tracking, and the development of zero-carbon factories. With the assistance of third-party carbon emission verification, the company has identified the potential for carbon emission reduction and optimised its emission reduction measures and plans. The company completed the construction of a waste heat boiler project in 2023, which generates approximately 18,000 tonnes of steam per annum, resulting in an annual saving of 1,530 tonnes of standard coal equivalent. It is equivalent to a reduction of 4,242 tonnes of carbon dioxide emissions. Meanwhile, the company also plans to gradually participate in the carbon trading market to promote the realisation of its carbon emission targets and respond to the national strategy of dual-carbon.

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Proactively integrating into the “Belt and Road Initiative”, demonstrating humanitarian concern

As a proactive response to the “Belt and Road Initiative”, Chengtun Mining has been actively exploring high-quality resources around cobalt and copper, venturing the overseas markets in the Democratic Republic of the Congo and Indonesia. In the process of laying out overseas upstream mineral resources, the company pays great attention to the importance of local ecological environment protection and humanistic care. Based on the principle of tailoring to the local conditions, the company adopts different ecological protection and restoration work according to the characteristics of different mining areas. Take the Kalongwe mining project in the Democratic Republic of the Congo as an example, the company carries out biodiversity research and ecological restoration activities in the surrounding areas to minimise the negative impact on local species and the environment. Additionally, the company actively participates in the construction of hospitals, schools and farms surrounding the mining areas, builds solar-powered water wells, assists in road maintenance, and provides free medical consultations and disease awareness education. These initiatives demonstrate the company’s humanistic care for local residents and reflect the fulfilment of its social responsibility.

Kalongwe Project- Participation in the Construction of Hospitals

Kalongwe Project- Construction of Solar-powered Water Wells for Local Residents

Case 3: Focusing on Environmentally Friendly Buildings, Creating Social Value: CNQC International Holdings Limited

The housing issue has always been the most pressing livelihood concern in Hong Kong. In recent years, the Hong Kong SAR Government has been actively promoting the construction of "transitional housing" to increase the supply of housing, thereby alleviating the pressure of poor living conditions. However, as many transitional housing units are built on land lent by developers or other short-term unused land, the demolition of these units after the expiry of the operating period of the land will result in a large amount of wastage materials. In addition, the construction industry also involves an extensive transportation chain, with a large number of materials to be transported to the site and waste to be transported away from the site. Therefore, it generates a large amount of carbon emissions and noise pollution during the construction and transport processes. However, the construction of transitional housing using the "Modular Integrated Construction (MiC)"[1] method can strike a balance between construction efficiency, cost and environmental protection to the greatest extent possible.

Singapore has already promoted a similar concept since 2014. The Hong Kong-listed CNQC International Holdings Limited ("CNQC International", stock code 01240.HK) is one of the leading companies in Singapore's MiC industry. Its subsidiary, Woon Lee Construction Co., Ltd., has undertaken several transitional housing projects. Through our interviews with CNQC International, it is found that the company has continuously innovated in construction processes, shortening construction periods and effectively solving the problem of reusing construction components, which are exemplary ESG practices in the construction industry.

Relying on innovative building technologies, contributing to sustainable urban development

Our interviews showed that CNQC International has a number of leading advantages in the field of modular construction. On the one hand, the company significantly reduces material wastage and waste generation compared with the traditional construction method by continuously drilling into prefabricated parts, MiC and four-dimensional construction technology. On the other hand, for the installation process at the construction site, the company upgrades and optimises the machinery and equipment applied to reduce on-site energy consumption and emissions. In recent years, the company has been assisting in expanding the green and innovative construction business, contributing to the local community and people's livelihood on the premise of promoting conservation and environmental protection and contributing to sustainable urban development.

CNQC International promotes sustainable development in construction industry of Hong Kong:

A transitional housing project at Wong Yue Tan, Plover Cove, Tai Po, Hong Kong: This project is the first transitional housing project in Hong Kong to use old mouldings to dismantle and rebuild off-site. CNQC International used the MiC method to repurpose the building, with the eighth moulding coming from the demolished Nam Cheong 220 project, which had a reuse rate of 95% of the mouldings. After completing the repainting and replacing exposed pipes, the assembly was finished in just two weeks, elevating construction efficiency and material savings to new heights.

Transitional Housing Project at Wong Yue Tan, Plover Cove, Tai Po, Hong Kong

A transitional housing project at Choi Hing Road, Kwun Tong, Hong Kong: The project comprises 108 units from a demolished transitional housing unit in To Kwa Wan, which were inspected and cleaned, and then combined with other materials to form an 8-storey building with 331 units. The project is the first and currently the tallest assembled transitional housing in Hong Kong. The company's innovative assembly technology overcame typhoon conditions in Hong Kong, thus benefiting more residents.

Transitional Housing Project at Choi Hing Road, Kwun Tong, Hong Kong

Case 4: Promoting the Use of Business Integration to Achieve Dual-carbon Goals: China Shuifa Singyes Energy Holdings Limited

Multi-industry complementary, promoting own business combination

In 2021, the total energy consumption of the whole building process in Mainland China was nearly 1.91 billion tonnes of standard coal eq., accounting for 36.3% of the country's total energy consumption.[2] How to improve the efficiency of energy saving and emission reduction in the construction industry is an issue that the government and enterprises have been considering. In recent years, the green building and clean energy industries have grown rapidly, but few companies can combine both. The Hong Kong-listed company China Shuifa Singyes Energy Holdings Limited ("SFSY Energy", stock code 00750.HK) puts forward the idea of "being the green building expert who knows the most about clean energy". Through interviews with SFSY Energy, it is observed that the company not only focuses on clean energy and green building independently, but also continues to focus on the combination of photovoltaic, wind power and green building. In the clean energy industry, SFSY Energy is dedicated to developing wind energy, photovoltaic, hydrogen energy, energy storage and other new energy industries. It actively participates in the development of a series of national, industrial, and local energy standards. Using the advantages of the Hong Kong capital market financing platform and giving full play to the leading edge of technology of distributed energy with the complementation of multiple energy sources, SFSY Energy has developed clean energy multi-energy complementary projects and invested and constructed nearly 8GW of photovoltaic, other clean energy and the complementation of multiple energy projects.

In addition, SFSY Energy has completed more than 1,000 domestic and international curtain wall design and construction projects. It is a leading enterprise integrating green building design and consulting, architectural curtain wall engineering and construction, and ultra-low energy building operation and maintenance management. The company adopts the principle of "Passive priority, active optimisation", giving priority to the design of the spatial form and structure of the building itself, together with the application of high-performance maintenance building materials, in order to achieve ultra-low-energy. At the same time, the company has been strengthening cooperation with upstream and downstream sectors to adopt energy-saving and protective materials, as well as conducting research and development of new materials. The company is committed to expanding the scale of green buildings, and continuously improving the benefits of green buildings for society and people's livelihood through large-scale use.

Participation in the construction of landmark buildings in Hong Kong

SFSY Energy was involved in the construction of the glass curtain wall of the Hong Kong Xiqu Centre, a landmark building in Hong Kong, which was awarded the HKGBC BEAM Plus Gold Rating[3], contributing to the sustainable development of Hong Kong.

Glass Curtain Wall Project of the Hong Kong Xiqu Centre

Continuous R&D on the integrated use of clean energy technology and building energy efficiency

Buildings are energy consumers. SFSY Energy endeavours to develop the building as an energy provider, which means generating electricity by utilising the spatial resources of the building. Specifically, SFSY Energy uses Building-integrated photovoltaics (BIPV) technology to integrate photovoltaic power generation into buildings and solar photovoltaics/thermal technology to integrate heat, cooling and heating into buildings. SFSY Energy lowers the cost of green buildings by investing continuously in R&D to provide energy with a high economic value. Additionally, it maximises the distribution of energy generation by intelligent transformation, which encourages the integration of clean energy and green buildings.

SFSY Energy Industrial Park R&D Building

Completely ready and keep an eye on the carbon market

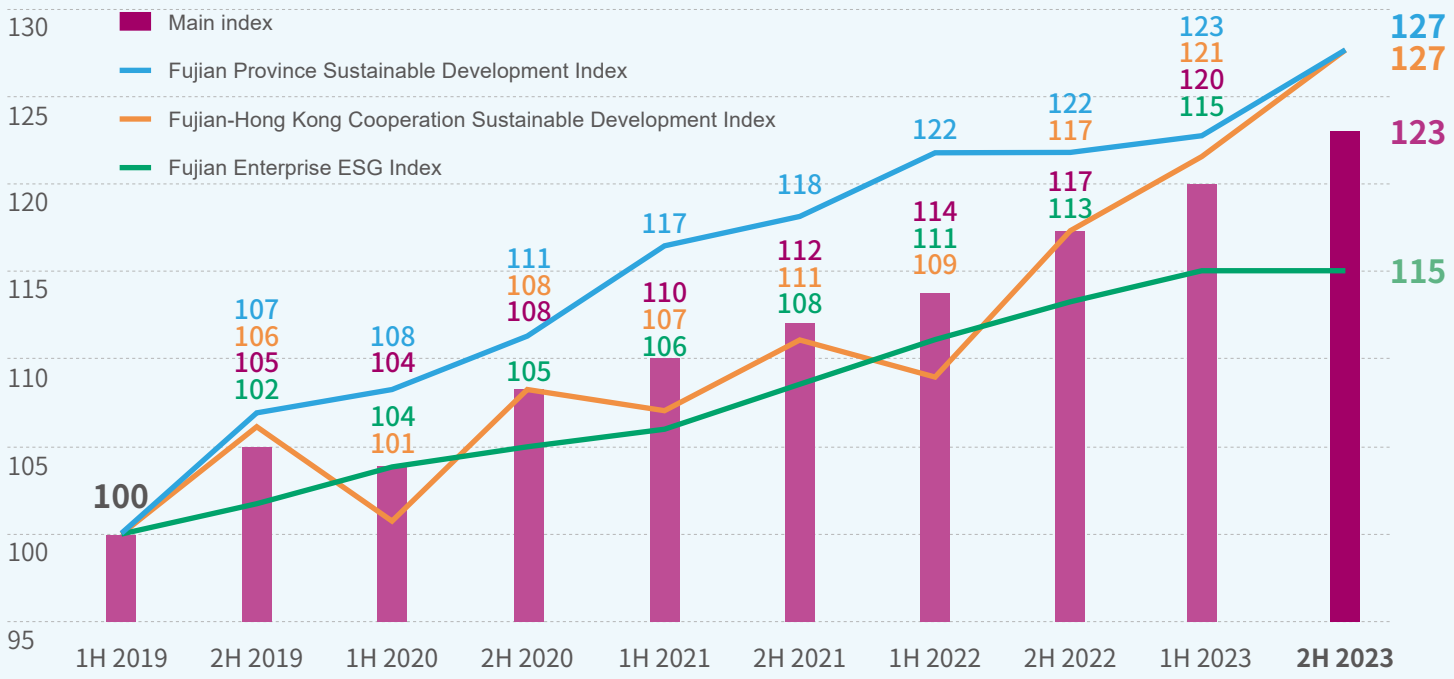
SFSY Energy has already achieved carbon neutrality in 2019. Currently, 100% of its total electricity consumption comes from clean energy generation. In the future, SFSY Energy will continue to explore ways to increase the impact of its clean energy production. Meanwhile, the company will also closely monitor the development of the carbon trading market and take appropriate action as necessary.

03 Chiyu Fujian-Hong Kong ESG Index

Night View of Victoria Harbour, Hong Kong SAR.

03 Chiyu Fujian-Hong Kong ESG IndexEnterprises

Figure 1. Chiyu Fujian-Hong Kong ESG Index: the main index and three sub-indices



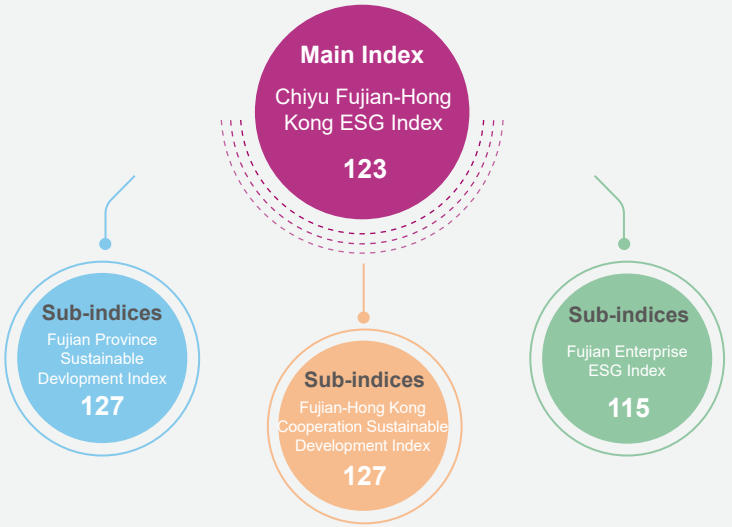
Source: Fujian Province's official statistical database, third-party databases, public sources, CECEPEC

Note: The Fujian Enterprise ESG Index is a sub-index of the Chiyu Fujian-Hong Kong ESG Index, which is updated annually and is not updated in this report. The index value of the Fujian Enterprise ESG index in the second half of 2023 in Figure 1 continues to use the figure of 1H 2023.

The main index of the Chiyu Fujian-Hong Kong ESG Index maintained a growth trend, reaching 123 points in the second half of 2023, with a year-on-year growth of 5.1%. Additionally, over the same period, the Fujian Province Sustainable Development Index and the Fujian-Hong Kong Cooperation Sustainable Development Index both reached 127 points, with year-on-year growth rates of 4.1 % and 8.5%, respectively.

Beibuwan Windmill, Pingtan, Fuzhou, Fujian.

Figure 2. Composition and relation of the index and index values for the second half of 2023



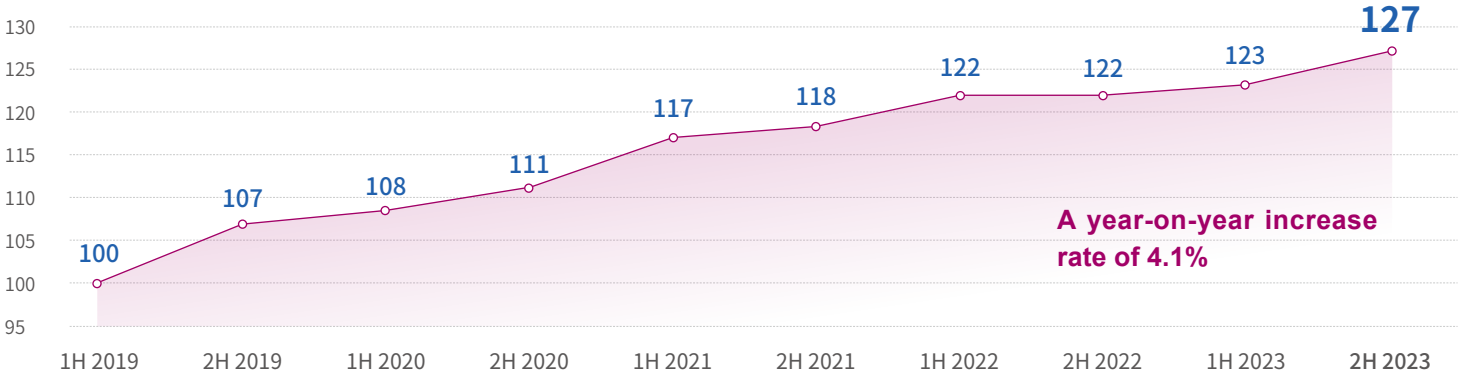
First-level indicators

- Environmental Performance and Resource Management 127
- Economic Development 128
- Social Development and Livelihood 121
- Sustainable Finance 130
- Supportive Policies for Sustainable Development 137
- Exchange Activities for Sustainable Development 129
- Financial, Economic and Trade Cooperation 117
- Environment 121
- Social 111
- Corporate Governance 113

Note: Please refer to “Appendix 4.1 – Table of Indicators” for more details on second-level indicators. Fujian Enterprise ESG Index is a sub-index of the Chiyu Fujian-Hong Kong ESG Index, which is updated annually and is not covered in this report. The index value of the Fujian Enterprise ESG index in the second half of 2023 in Figure 2 continues to use the figure of 1H 2023.

3.1 Fujian Province Sustainable Development Index

Figure 3. Fujian Province Sustainable Development Index



Source: Fujian Province’s official statistical database, third-party databases, public sources, CECEPEC

Fujian Province showed significant growth in first-level indicators “Economic Development” and “Sustainable Finance”.In terms of economic development, the tertiary industry and the level of innovation and research and development in Fujian Province have shown continuous growth. In terms of sustainable finance, the volume of green loans and the activity of the carbon emissions trading market in Fujian Province are both growing.

Fujian Province Sustainable Development Index reached

127

points in the second half of 2023

with a year-on-year increase of

4.1%

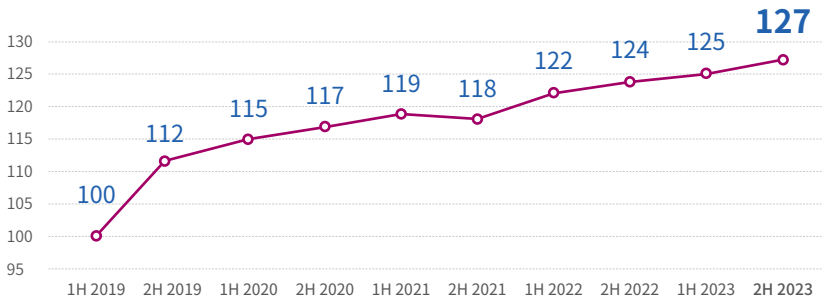
- The added value of Fujian Province’s tertiary industry increased by **5.2%** year-on-year in 2023
- The number of invention patent grants in the province reached a new high of **9,734** in the second half of 2023 during the research period
- As of the end of 2023, the balance of green loans in Fujian Province has increased by **39.5%** year-on-year
- The trading volume and the value of transactions of the carbon emissions trading market in Fujian Province in the second half of 2023 increased by **137.1%** and **123.6%** respectively, when compared with that in the first half of 2023

3.1.1 Fujian Province Sustainable Development Index: Environmental Performance and Resource Management

Our research shows that Fujian Province's performance on the first-level indicator "Environmental Resources" stabilised above 120 points and reached 127 points in the second half of 2023. The air and water quality of the Fujian Province has become better compared to the same period in 2022. At the same time, the proportion of installed capacity of clean energy has steadily improved. Additionally, our research observed that Fujian Province has continuously enhanced its green manufacturing system.

Air quality in Fujian Province has always been at the forefront of the country, in Fuzhou City ranked fourth among 168 key cities in the country in 2023[4] .This is due to Fuzhou City's in-depth promotion of various measures, which specifically include deepening industrial pollution control in key industries and strengthening the control of various types of dust pollution sources.

Figure 4. Fujian Province Sustainable Development Index: Environmental Performance and Resource Management



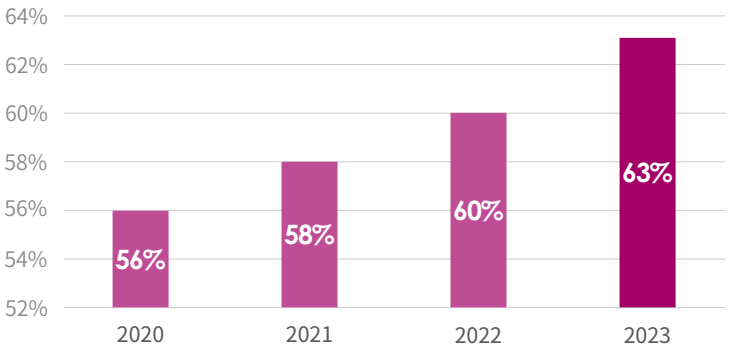
Source: Fujian Province's official statistical database, third-party databases, public sources, CECEPEC

Fujian Province has abundant water resources due to its favourable geographic location. Naturally, protecting water resources has become one of the priorities of ecological protection work. In November 2023, Fujian Province revised the "Fujian Provincial Water Resources Regulations" to further clarify the division of responsibilities for water resources protection and strengthen the public's awareness of the conservation and utilisation of water resources.

In the field of clean energy, Fujian Province maintains its development momentum. As of the end of 2022, the proportion of installed capacity of clean energy in Fujian Province exceeded 60% for the first time and reached 63% by the end of 2023.

As an important clean energy base on the southeast coast of China, Fujian Province has the conditions to export electricity to foreign provinces on a self-balancing basis. Our research found that Fujian Province continued to leverage its strengths in clean energy in 2023, accelerating the construction of a clean energy hub in the Southeast region and supporting energy transition in broader areas.

Figure 5. Proportion of installed capacity of clean energy in Fujian Province



Source: Public sources

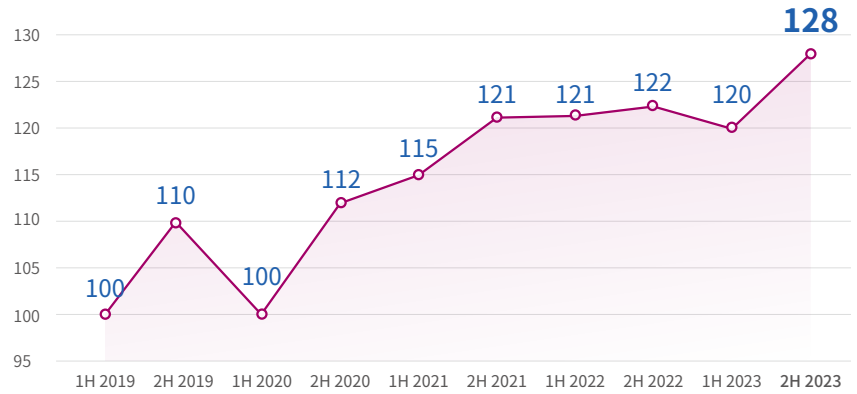
3.1.2 Fujian Province Sustainable Development Index: Economic Development

As shown in Figure 6, Fujian Province's performance on the first-level indicator "Economic Development" rose significantly during the second half of 2023, reaching 128 points with a 4.9% year-on-year increase.

According to public data, Fujian Province's GDP reached RMB 5,435.51 billion in 2023, maintaining eighth place in the country. It is worth noting that the per capita GDP of all municipalities in Fujian Province exceeded the national average[6].Additionally, our research found that there was great progress in the tertiary industry development and innovation level in Fujian Province. The value added of the tertiary industry reached RMB 2,717.10 billion, with a year-on-year increase of 5.2%; furthermore, the accommodation and catering industry saw a notable growth rate of 11.0%[7].

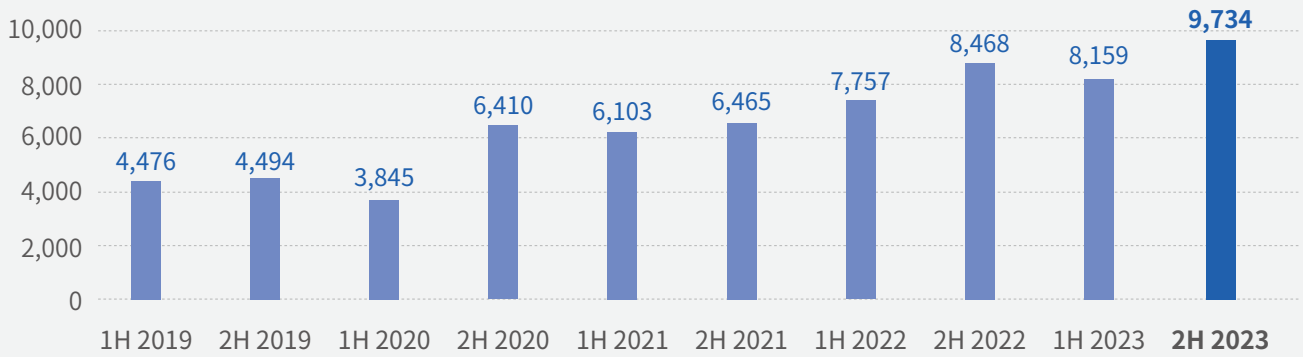
In line with the national strategy of driving high-quality economic development through science and technology innovation, Fujian Province strengthened its scientific and technological innovation capabilities by issuing policies and measures in the second half of 2023. Specifically, the People's Government of Fujian Province put forward 20 measures to promote the development of sci-tech and innovation in November 2023, encouraging enterprises to strengthen sci-tech and innovation, and improving the environment and mechanism for research, development and innovation. Our research found that the level of innovation and R&D in Fujian Province is increasing, with 9,734 invention patents granted in the second half of 2023, creating the highest level in recent years.

Figure 6. Fujian Province Sustainable Development Index: Economic Development



Source: Fujian Province's official statistical database, third-party databases, public sources, CECEPEC

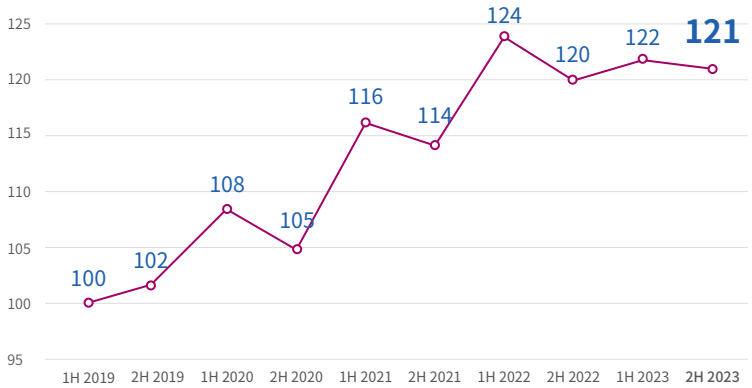
Figure 7. The number of invention patent grants in Fujian Province



Source: China National Intellectual Property Administration, CECEPEC

3.1.3 Fujian Province Sustainable Development Index: Social Development and Livelihood

Figure 8. Fujian Province Sustainable Development Index: Social Development and Livelihood



Source: Fujian Province's official statistical database, third-party databases, public sources, CECEPEC

As per Figure 8, Fujian Province's performance on the first-level indicator "Social Development and Livelihood" has been relatively stable over the past two years, reaching 121 points in the second half of 2023, an increase of one point over the same period last year. It is found that Fujian Province issued several policies in the second half of 2023, focusing on people with disabilities, orphans, and other socially disadvantaged groups and improving the relief mechanism. Our research found that education is also a key policy concern in Fujian Province. In the second half of 2023, education-related policies have been issued to improve the province's mechanisms for compulsory education, vocational education, etc. In addition, expenditure has continued to increase in the fields of livelihood protection and education while promoting the development of the healthcare sector.

The expenditure on social security and employment reached RMB **77.08** billion in 2023, with a year-on-year increase of **7.5** %

The expenditure on education reached RMB **125.90** billion in 2023, with a year-on-year increase of **3.4** %

As of the end of 2023, Fujian Province had **30,000** healthcare institutions, with a year-on-year increase of **3.1** %

326,000 health technicians, with a year-on-year increase of **6.6** %

and **242,000** beds in healthcare institutions, with a year-on-year increase of **5.3** %

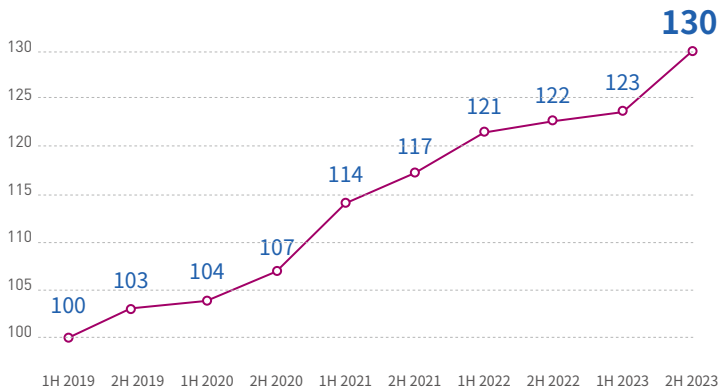
Haicang Bridge, Xiamen, Fujian.

3.1.4 Fujian Province Sustainable Development Index: Sustainable Finance

As shown in Figure 9, the first-level indicator "Sustainable Finance" reached a new high of 130 points in the second half of 2023, with a year-on-year increase of 6.6%. This is mainly due to the continuous improvement of the second-level indicators of "Balance of Green Loans" and "Carbon Emission Trading Volume".

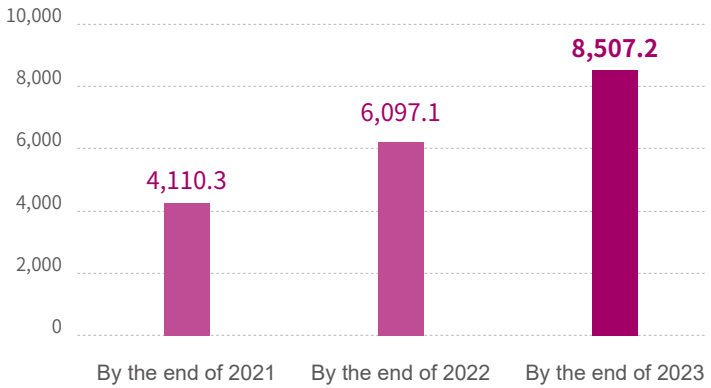
Fujian Province has strengthened its support for green development. In 2022, Fujian Province set a target of doubling the balance of green loans at the end of 2025 compared to 2021[8]. As of the end of 2023, the balance of green loans in Fujian Province was RMB 850.72 billion, reaching a year-on-year increase of 39.5%[9], according to public data. As shown in Figure 10, by the end of 2023, the balance of green loans in Fujian Province has doubled from the end of 2021.

Figure 9. Fujian Province Sustainable Development Index: Sustainable Finance



Source: Fujian Province's official statistical database, third-party databases, public sources, CECEPEC

Figure 10. Balance of green loans in Fujian Province (RMB billions)



Source: Public sources

Fujian Province's GSSS bonds[i] market was less active in the second half of 2023, with a total issuance volume[ii] of approximately RMB 8.7 billion. It was mainly due to the impact of the overall bond market and macroeconomic environment, which led to a decrease in the national issuance scale in 2023 as compared to previous years, as well as the diversion of part of the financing demand by "transition bond".[10]

Regarding the carbon emissions trading market, Fujian Province has continued to establish and strengthen the carbon market trading system and steadily expand the trading volume. The trading volume and the trading value of the carbon emissions trading market in Fujian Province in the second half of 2023 reached 18.428 million tonnes and RMB 420 million, respectively, an increase of approximately 137.1% and 123.6% compared to the figures in the first half of 2023.

The trading volume and the trading value of the carbon emissions trading market in Fujian Province in the second half of 2023 reached

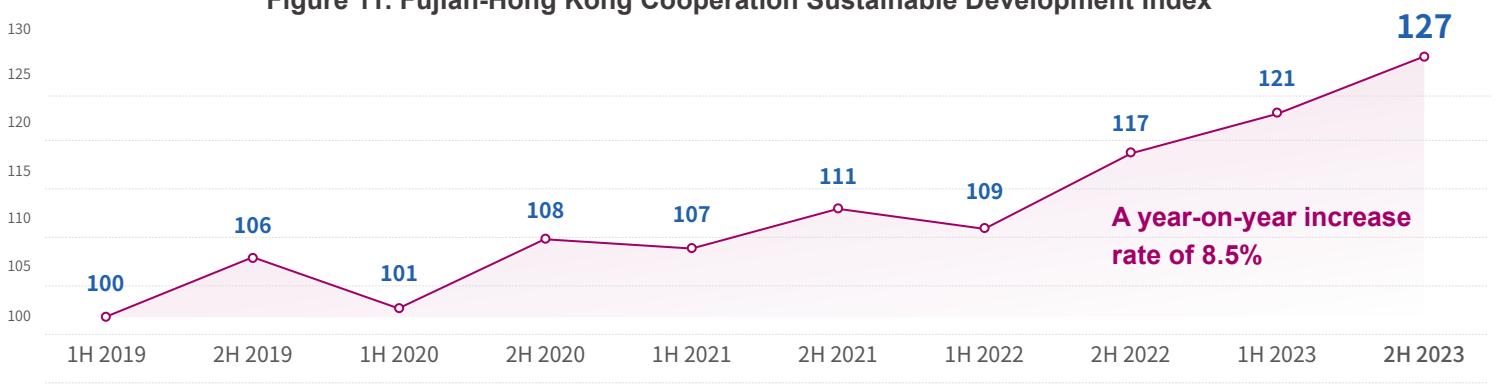
18.428 million tonnes

[i]GSSS bonds include green bonds, social bonds, sustainability bonds, and sustainability-linked bonds.

[ii]Fujian Province's GSSS bonds include GSSS bonds issued by companies registered in Fujian Province and government bodies in Fujian Province.

3.2 Fujian-Hong Kong Cooperation Sustainable Development Index

Figure 11. Fujian-Hong Kong Cooperation Sustainable Development Index



Source: Fujian Province's official statistical database, third-party databases, public sources, CECEPEC

Fujian-Hong Kong Cooperation Sustainable Development Index reached

127

points in the second half of 2023

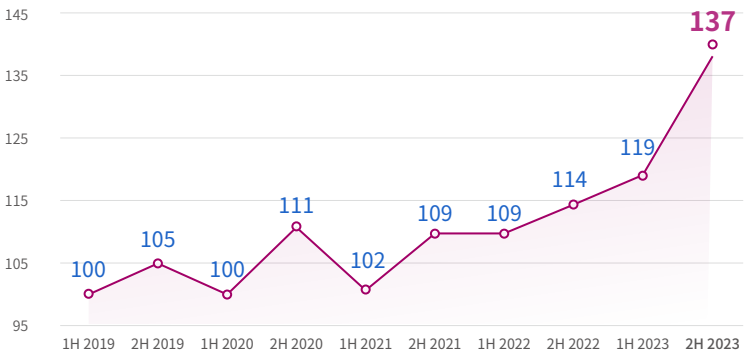
with a year-on-year increase of

8.5 %

- Among the three first-level indicators, the indicator "Supportive Policies for Sustainable Development" shows a notable increase. The Hong Kong SAR Government released several policies such as the "Action Plan on Maritime and Port Development Strategy" and "Northern Metropolis Action Agenda" in the second half of 2023, to strengthen the cooperation and joint development between Hong Kong and the Mainland China in areas such as the shipping industry.
- Apart from economics and trade, Fujian and Hong Kong have been deepening exchanges in other areas, including innovation and technology in the second half of 2023.
- In September 2023, the 2023 Fujian-Hong Kong-Macao Economic and Trade Exchange Forum was held in Xiamen.

3.2.1 Fujian-Hong Kong Cooperation Sustainable Development Index: Supportive Policies for Sustainable Development

Figure 12. Fujian-Hong Kong Cooperation Sustainable Development Index: Supportive Policies for Sustainable Development



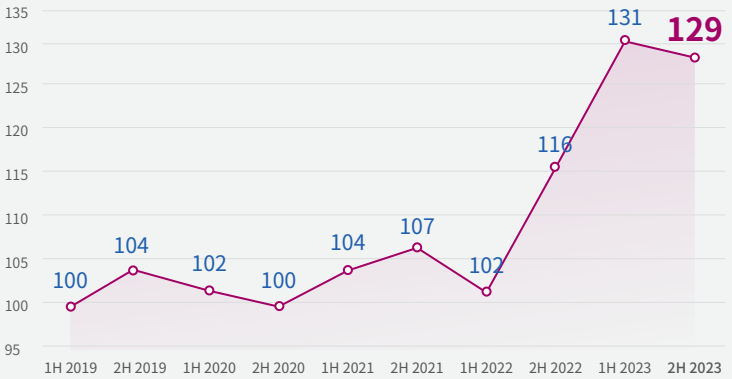
Source: Fujian Province's official statistical database, third-party databases, public sources, CECEPEC

Our research shows that local authorities have strengthened policy to support cooperation between Fujian and Hong Kong in the second half of 2023, and the first-level indicator "Supportive Policies for Sustainable Development" reached 137 points, with a year-on-year increase of 20.2%. Meanwhile, the Hong Kong SAR Government released documents such as the "Action Plan on Maritime and Port Development Strategy". Due to the geographical proximity of Hong Kong and Fujian, which are both situated in the Pan-Pearl River Delta region, there is great room for collaboration in the shipping industry. This point was addressed by representatives of the Hong Kong Trade Development Council, they also emphasized Hong Kong's key role in connecting local and overseas markets[11] at Hong Kong Maritime Week 2023 (HKMW 2023) and 3rd World Maritime Merchants Forum held on 25 November 2023. Hong Kong has already achieved significant results in overseas integration, talent development, port construction and management, and digital transformation. Further exchanges in these areas will drive collaborative innovation. Meanwhile, as a global financial hub, Hong Kong's financial institutions and professionals can provide capital financing, risk management, and investment services to Fujian Province's logistics, shipping, and air transport industries to help expand their businesses at home and abroad.

In addition, on 8 September 2023, Xiamen successfully held the "2023 Fujian-Hong Kong Smart City Innovation Technology Promotion Conference" with the theme of "Hong Kong meets Fujian, making the city smarter". Experts and enterprise representatives from Fujian and Hong Kong, including The Hong Kong University of Science and Technology (Guangzhou), Hong Kong Science and Technology Parks Corporation (HKSTP), Fuzhou University and Jimei University, were invited to the event. This event was a concrete action for Fujian Province and Hong Kong to implement the spirit of the June 2023 Fujian-Hong Kong high-level meeting between government officials and the Fourth Plenary Session of the Hong Kong/Fujian Co-operation Conference. The Fujian Provincial Department of Science and Technology will continue to support introducing Hong Kong innovation resources to Fujian, join hands with Hong Kong to promote work together to promote science and technology innovation cooperation and go global.[12]

3.2.2 Fujian-Hong Kong Cooperation Sustainable Development Index: Exchange Activities on Sustainable Development

Figure 13. Fujian-Hong Kong Cooperation Sustainable Development Index: Exchange Activities on Sustainable Development



Source: Fujian Province's official statistical database, third-party databases, public sources, CECEPEC

As shown in Figure 13, the first-level indicator "Exchange Activities on Sustainable Development" reached 129 points in the second half of 2023, with a slight decline from the first half of 2023. Within the context of the full resumption of normal travel between Hong Kong and the Mainland in early 2023, the frequency of exchanges between Fujian and Hong Kong increased sharply in the first half of the year and remained high in the second half of 2023. Our research shows that apart from the same hit topic economics and trade in first half of 2023, Fujian and Hong Kong have been deepening exchanges in other areas, including innovation and technology in the second half of 2023.

Innovation and Technology Issues - Visit of the Secretary for Innovation, Technology and Industry of Hong Kong to Fuzhou City, Fujian Province[13]

In November 2023, The Secretary for Innovation, Technology, and Industry of Hong Kong, Prof. SUN Dong, started his visit to Fuzhou City, Fujian Province. Prof. Sun introduced the latest work of the Hong Kong SAR Government on promoting the development of Hong Kong's innovation, technology, and industry to Chen Dong, deputy secretary of the Party Leadership Group of the Standing Committee of the Fujian Provincial People's Congress. The two sides exchanged views on further promoting innovation and technology cooperation between Fujian Province and Hong Kong.

In addition, Prof. Sun exchanged views with some leading Fujian enterprises, such as Contemporary Amperex Technology Co., Limited. and Hengmei Optoelectronic Co., Ltd, to discuss the innovation and future development in the fields of power batteries and energy storage batteries. Prof. Sun pointed out that the Hong Kong SAR Government is setting up a New Industrialisation Development Office and has taken new energy technology as one of the government's strategic industrial directions. In the future, the Hong Kong SAR Government will endeavour to support the development of the relevant industries and leading or typical enterprises. The Hong Kong SAR Government will also provide appropriate facilities and services to key enterprises that intend to settle in Hong Kong.

The Secretary for Innovation, Technology and Industry Bureau, Professor Sun Dong visited the base of Contemporary Amperex Technology Co Limited (CATL)

Economic and Trade Issues - Delegation of the Legislative Council (LegCo) of the HKSAR visited Fujian, hoping to further deepen the cooperation between Hong Kong and Fujian[14]

The President of the LegCo of the HKSAR, Mr LEUNG Kwan-yuen, led a delegation of 33 LegCo Members to visit Fujian Province on 15 July 2023 for a five-day field trip. This is the first time that a delegation of the LegCo has visited Fujian since its establishment 25 years ago. The delegation visited Fuzhou and Xiamen for the projects related to local history and culture, finance and trade, shipping and logistics, innovation and technology, world heritage, and the key facility projects related to cultural conservation and tourism, to better understand the latest development of the local high-quality industries and exploring ways to deepen Hong Kong and Fujian cooperation in different areas.

Hong Kong and Fujian have similar origins and deep connection, a number of Hong Kong entrepreneurs actively participated in the development of Fujian, and the economic and trade connections between the two places are close. Hong Kong is the largest source of foreign investment and a major export market of Fujian. The delegation not only met with leaders of local government departments but also visited Hong Kong entrepreneurs, university students and retired elders in Fujian, to have a comprehensive understanding of their experiences. The first-hand information of this visit would be brought back to the LegCo for reflection and advice to the Hong Kong SAR Government, in order to further promote exchanges and cooperation between Hong Kong and Fujian, and to assist Hong Kong in integrating into the overall development of the country at a faster pace.

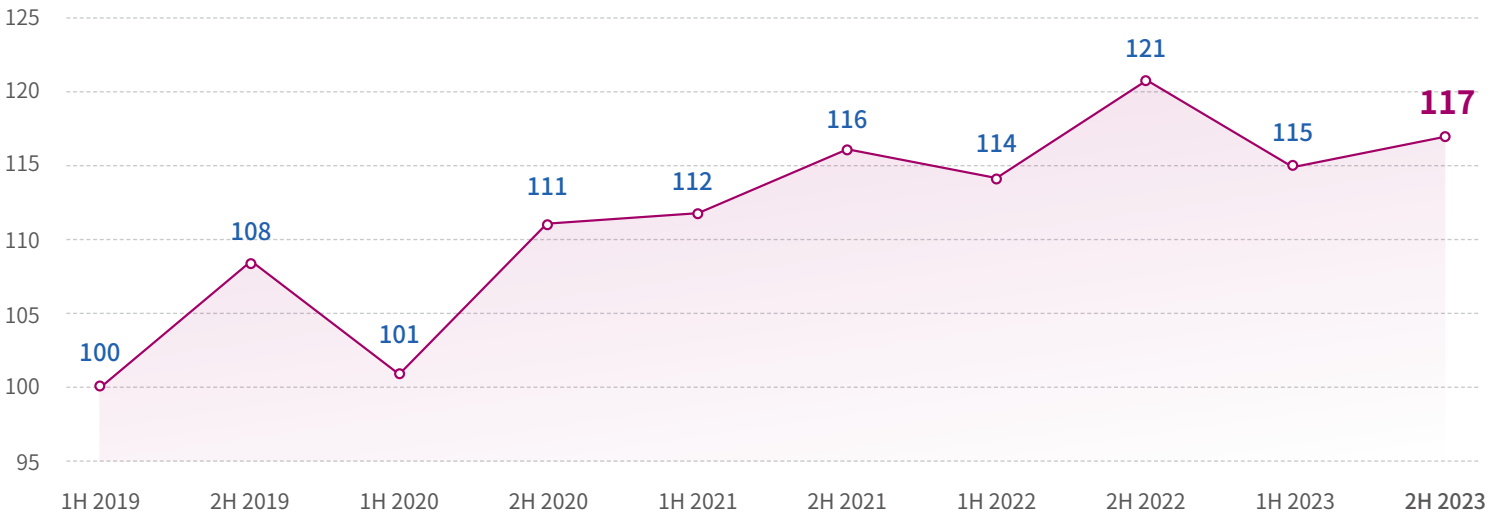
The Legislative Council ("LegCo") delegation observing the conservation work in old town district Sanfang Qixiang (Source: Wenweipo)

3.2.3 Fujian-Hong Kong Cooperation Sustainable Development Index: Financial, Economic and Trade Cooperation

Our research found that the first-level indicator “Financial, Economic, and Trade Cooperation” was 117 points in the second half of 2023, with a year-on-year decrease of 3.3%. As mentioned above, the issuance volume of China’s GSSS bond market shrank compared to 2022. Against this background, the volume of GSSS bonds issued by issuers from Fujian Province to Hong Kong in 2023 has also shrunk. The total volume of GSSS bonds to be issued in Hong Kong by Fujian-based issuers in 2022 amounted to USD 2.0 billion, while only one Fujian-based enterprise issued GSSS bonds in Hong Kong in 2023, with a size of approximately USD 0.08 billion.

Economic and trade cooperation has always been one of the most important aspects of cooperation between Fujian Province and Hong Kong. Due to the full resumption of normal travel between Hong Kong and the Mainland, the Fourth Plenary Session of the Hong Kong/Fujian Cooperation Conference was held in Hong Kong in the first half of 2023. It has been five years since the last Hong Kong/Fujian Cooperation Conference. In September 2023, the 2023 Fujian-Hong Kong-Macao Economic and Trade Exchange Forum was held in Xiamen, with the participation of important institutions such as the Hong Kong Trade Development Council, Macao Trade and Investment Promotion Institute, The Hong Kong General Chamber of Commerce, and leading companies from Fujian Province, Hong Kong, and Macao.

Figure 14. Fujian-Hong Kong Cooperation Sustainable Development Index: Financial, Economic and Trade Cooperation



Source: Fujian Province’s official statistical database, third-party databases, public sources, CECEPEC

Appendices

Table of Indicators

Figure 15. Fujian Province Sustainable Development Index

Water quality	Second-level indicators
Environmental Performance and Resource Management	Policies for environmental issues
	Government expenditure on energy conservation and environmental protection
	Proportion of installed capacity of clean energy
	Electric energy efficiency
	Air quality
	Water quality
	Forest coverage rate
	Number of green factories
Economic Development	Policies for economic development
	Per capita GDP
	Economic contribution of tertiary industry
	International trade and foreign capital utilisation
	Infrastructure capacity
	Innovation advancement
Social Development and Livelihood	Policies for social development and livelihood
	Government expenditure on social security
	Coverage rate of social security
	Level of elderly care services
	Government expenditure on education
	Per capita disposable income
	Level of development in healthcare system
Sustainable Finance[iii]	Policies for sustainable finance
	Balance of Green Loans
	Issuance of GSSS bonds (including green, social, sustainability and sustainability-linked bonds)
	Carbon emissions trading volume

Source: CECEPEC

[iii]Notice by the Ministry of Finance ("MOF") states that the MOF hereby decides to repeal the relevant public-private partnership (PPP) documents. Since this update, we have removed the indicator "Total amount of sustainable-related Public and Private Partnership (PPP) projects" from the Fujian Province Sustainable Development Index.

Figure 16. Fujian-Hong Kong Cooperation Sustainable Development Index

First-level indicators	Second-level indicators
Financial, Economic and Trade Cooperation	Issuance of GSSS bonds (including green, social, sustainability and sustainability-linked bonds) issued in Hong Kong by entities from Fujian Province
	Number of project collaborations between Fujian and Hong Kong
	Amount of direct investment from Hong Kong to Fujian
	Imports and exports between Fujian and Hong Kong
Exchange Activities on Sustainable Development	Exchange activities in the field of environment
	Exchange activities in the field of social development and livelihood
	Exchange activities in the field of economic development
	Exchange activities in the field of sustainable finance
Supportive Policies for Sustainable Development	Policies for promoting cooperation in the environmental issues between the two places
	Policies for promoting cooperation in the social development and livelihood between the two places
	Policies for promoting cooperation in the economic development between the two places
	Policies for promoting cooperation in sustainable finance between the two places

Source: CECEPEC

Definitions and Terms

Terms/Abbreviation	Interpretation
Passive priority, active optimisation	Passive technologies of thermal performance of envelope structures and air impermeability are improved to reduce the heating and cooling demands, together with active energy technologies with optimised efficiency and sufficient utilisation of renewable energy to achieve ultra-low energy.
Building-integrated photovoltaics (BIPV)	Building-integrated photovoltaics generate solar electricity and work as a structural part of a building.
GSSS bonds	Include green bonds, social bonds, sustainability bonds, and sustainability-linked bonds.
Green loan	The proceeds of the green loan are used in green projects, such as projects supporting the development of renewable energy, energy efficiency, sustainable utilisation of resources, and low-carbon transportation.
Clean energy	Clean energy does not produce pollutants. It includes renewable energy and nuclear energy.
Dual carbon	On September 22, 2020, China announced its climate goal to peak carbon emissions before 2023 and reach carbon neutrality before 2060, referred to as “dual carbon”.
TCFD	Task Force on Climate-Related Financial Disclosures
Transition bond	Debt financing instruments specifically raised to support environmental improvement and climate change adaptation, and dedicated to the field of low-carbon transition.

Note: In alphabetical order

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Chiyu Banking Corporation Limited was founded by Mr. Tan Kah Kee, a patriotic overseas Chinese leader in Yongan, Fujian Province, in 1943. The Bank was moved to Xiamen in 1945 after World War II, and was subsequently set up in Hong Kong on 15 July 1947, being the 39th licensed bank in Hong Kong. Upon completion of the share transfer on 27 March 2017, Chiyu Bank has become a member of Xiamen International Bank (“XIB”) Group. XIB has been ranked 154th by total assets and ranked 161st by Tier 1 capital in the “Top 1000 World Banks 2023” by the UK magazine, The Banker, and has been listed among the top 200 world banks for many years.

Established for more than 80 years, Chiyu Bank has 24 branches in Hong Kong and 7 branches and sub-branches in Xiamen and Fuzhou, Fujian Province, and Shenzhen, Guangdong Province. The Bank strives to provide sincere, flexible, customised, and professional cross-border financial services to Hong Kong, Mainland and overseas Chinese customers. After the successful takeover by XIB in 2017, Chiyu Bank has been operating under new management directions and in new business culture. This enables the Bank to achieve steady growth in both customer deposits and loans to customers. By the end of 2023, the Bank’s total assets have exceeded HKD 184.6 billion.

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