申洲國際集團控股有限公司
Shenzhou International Group Holdings Limited

環境、社會及管治報告 2021
Environmental, Social and Governance Report 2021

環境、社會及管治報告
Environmental, Social and Governance Report

關於本報告及其範圍

此可持續發展報告概述本集團的主要附屬公司在工作環境保護、社會責任及營運管治等方面之工作方法、承諾及策略。本報告之報告期間自二零二一年一月一日起至二零二一年十二月三十一日止，本報告所披露之數據分別由人力資源部、行政事業部、財務部、能源部及其他相關部門提供，並由可持續發展部門編製整理。除了特別列明外，本報告披露的內容已包括本集團在中國、越南及柬埔寨各主要分公司及生產基地。

本報告根據上市規則附錄27所載的「環境、社會及管治報告指引」編製。於報告期間，本公司已遵守「環境、社會及管治報告指引」所載列的「不遵守就解釋」條文。

ABOUT THIS REPORT AND ITS ASPECT

This sustainability report outlines the approaches, commitment and strategies of the Group's major subsidiaries in respect of environmental protection, social responsibility and operating governance. The reporting period of this report is from 1 January 2021 to 31 December 2021. The data disclosed in this report is provided by the respective human resources, administration, finance, energy and other relevant departments, and has been prepared and collected by sustainable development department. Unless otherwise stated, the contents disclosed in this report included each of major branches and production bases of the Group in China, Vietnam and Cambodia.

This report has been prepared in accordance with the "Environmental, Social and Governance Reporting Guide" set out in Appendix 27 of the Listing Rules. During the reporting period, the Company has complied with the "comply or explain" provisions set out in the "Environmental, Social and Governance Reporting Guide".

持份者參與及重大議題的篩選

為確保環境、社會及管治政策有效的落實。本集團十分關注各持份者的意見。當中包括內部持份者如董事、管理層及各階層員工。外部持份者包括股東、客戶、供應商、銀行、政府各機關及當地社區團體。本集團透過內部會議、訪談、內部刊物，員工績效評估及申洲管理學院培訓課程等作為主要內部持份者溝通渠道。外部持份者則以會議、實地考察、股東週年大會及集團公告作為溝通渠道。

PARTICIPATION OF STAKEHOLDERS AND SELECTION OF MAJOR ISSUES

In order to ensure the effective implementation of our environmental, social and governance policies, the Group attaches great importance to the opinion from every stakeholder. Stakeholders includes internal stakeholders like Directors, management and staff of different levels, as well as external stakeholders like shareholders, customers, suppliers, banks, every government authority and local community organizations. Internal meetings, interviews, internal publications, staff performance review, training courses organized by Shenzhou School of Management are the Group's major communication channels with its internal stakeholders. While for our external stakeholders, the Group uses meeting, site visit, annual general meeting and Group's announcement as communication channels.

經綜合考慮，我等將就資源利用、節能減排、員工待遇和工作環境、培訓與發展、社區參與、供應鏈管理、反貪污、精益與創新及投資者關係等陳述本集團的政策與成效。歡迎各持份者表達意見。

After comprehensive consideration, we will present our policies on resources utilization, energy conservation and emission reduction, remuneration package, working environment, training and development of our staff, social engagement, procurement chain management, anti-corruption, lean production and innovation, investor relationships, etc, and their effectiveness. All stakeholders are welcome to express their opinions.

環境、社會及管治報告
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願景

「成為全球最佳科技服飾運營商」－是申洲對企業未來發展之定位。申洲是亞洲最大的垂直一體化成衣企業，擁有研發、設計、生產、物流等完整的運營體系。申洲對於未來之發展策略，不僅是追求企業規模之持續增長，更注重於企業競爭力之全面提升，尤其追求於創新、自動化、數字化、環境保護等方面之持續進步。

VISION

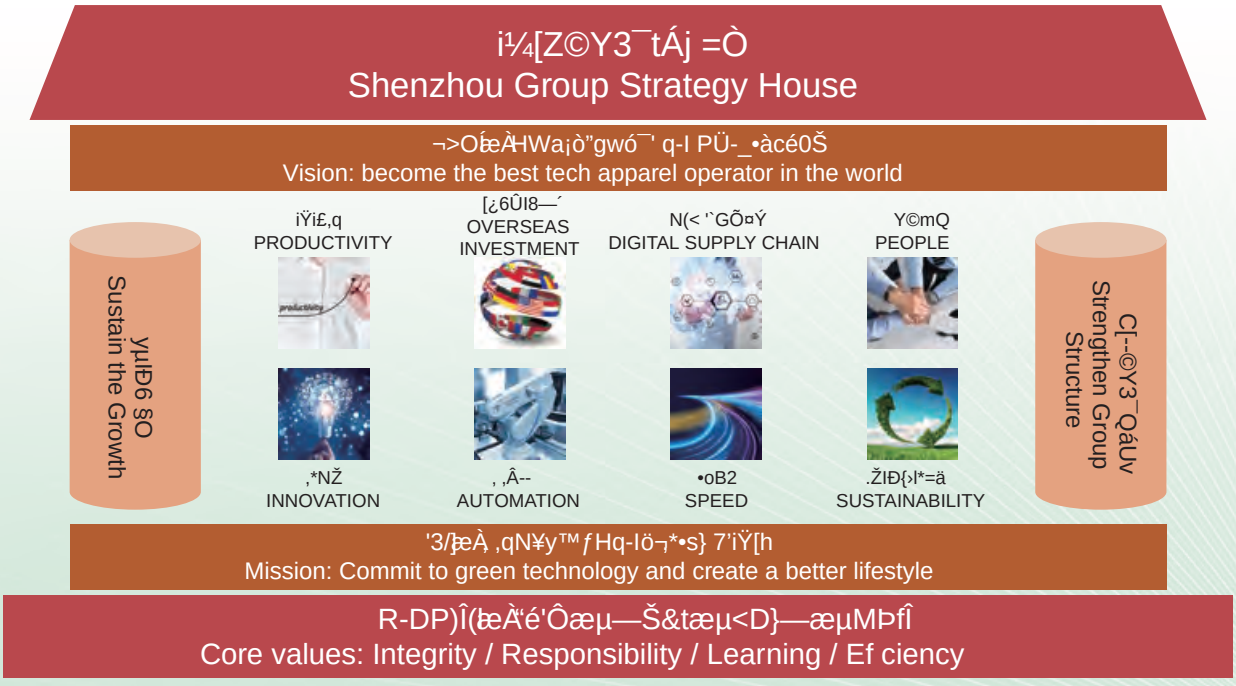
Shenzhou's position for its future corporate development is to be committed to "becoming the best tech apparel operator in the world". Shenzhou is Asia's biggest vertically integrated garment enterprise, with a complete operation system including research and development, design, production and logistics. The future development strategy of Shenzhou is not only to pursue the continuous growth of the scale of the enterprise, but also to focus on the comprehensive uplift in the corporate competitiveness, especially the improvement in innovation, automation, digitalisation and environmental protection.

使命

「致力於綠色科技，創造美好生活」－綠色環保是應承擔的基本社會責任，也是一個企業能夠長遠發展的基礎，集團將持之以恒的投入環保工作，實現企業之可持續發展；舒適不只是針織服飾帶給人們的觸感，更是我們努力追求的生活狀態，通過營造舒適的生活，成就企業與自然的和諧平衡。

MISSION

"Committing to green technology and creating a better lifestyle" – Environmental protection is primary social responsibility as well as the basis of long-term viability for any enterprises. The Group shall always remain devoted to environmental commitments, from which corporate sustainability can be realized. Comfort is not merely a tactile sensation from our knitwear, but also a state of living that we so fervently pursue. By creating a life of comfort, we seek to make the enterprise one with nature.



環保、社會責任及管治架構

本集團深知提升自身環境與社會責任對集團可持續化運營的重要性，已將影響環境、社會責任及管治的風險與機遇因素納入集團經營戰略中，指導日常業務運營。本集團已成立可持續發展委員會（「可持續發展委員會」），並由集團董事會主席兼任本委員會主席，同時委任行政部主管統籌本委員會的日常運作，並定期向董事會滙報。

董事會支持本集團對於履行環境、社會責任及管治責任所作的承諾，並對本集團的環境、社會責任及管治責任的策略及匯報承擔全部責任。董事會每年審閱集團的環境、社會責任及管治表現，識別、評估並管理重要的環境保護、社會責任及管治相關事宜，監管及審批年度環境、社會及管治報告。

本集團管理層負責評估及釐定本集團有關環境、社會及管治的風險，確保本集團設立合適及有效的環境、社會責任及管治的風險管理及內部控制系統，向董事會匯報環境、社會責任及管治的相關風險與機遇，並確保提供的相關環境、社會責任及管治系統有效。

ENVIRONMENTAL, SOCIAL RESPONSIBILITY AND GOVERNANCE STRUCTURE

The Group recognizes the importance of enhancing its own environmental and social responsibility to maintain business sustainability. In determining its operation strategy, therefore, the Group considers risks and opportunities affecting the environmental, social responsibility and governance ("ESG") issues, which will provide guidelines for its daily business operations. The Group has established a Sustainable Development Committee ("Sustainable Development Committee") chaired by the Chairman of the Board. Meanwhile, we have also appointed the head of our Administration Department to organize the daily operation of the committee and report to the Board on a regular basis.

The Board endorses the Group's commitments to ESG responsibility, and assumes full responsibility for ESG strategies and reporting. The Board reviews the ESG performance of the Group annually, identifies, evaluates and manages important matters related to environmental protection, social responsibility and governance, and oversees and approves annual ESG report.

In charge of assessing and determining the ESG risk exposure, the management of the Group also ensures the Group establishes appropriate and effective ESG risk management and internal control systems and reports to the Board the risks and opportunities related to ESG, and provides confirmation on the effectiveness of the ESG system.

環境保護

1. 申洲環境保護之概述：

環境保護乃政府之核心政策之一，近年來，中國政府對於環境保護之政策力度明顯加強，通過推進供給側改革，限制或淘汰了對環境帶來破壞影響的落後產能。中國政府持續完善了環保立法，頒佈實施多個環保法規，包括《中華人民共和國環境保護法》、《中華人民共和國環境影響評價法》、《中華人民共和國大氣污染防治法》、《中華人民共和國水污染防治法》、《中華人民共和國固體廢物環境污染防治法》、《中華人民共和國土壤污染防治法》、《碳排放權交易管理辦法（試行）》、《排污許可管理條例》等，各級政府加強了對環保的監管和排放督察力度。此外，我們海外工廠也嚴格按照當地法律要求執行各項環保及社會責任規定。同時，本集團在二零二一年依照《SBTi Criteria 4.2》設立了自己的科學碳目標。

ENVIRONMENTAL PROTECTION

1. The Introduction of Shenzhou's Environmental Protection:

Environmental protection is one of the key policies of the government. In recent years, the Chinese government has strengthened its effort in environmental protection policy through reform of the supply side, which restricts and eliminates the outdated production facilities that have negative impact on the environment. The Chinese government continuously improved environmental protection legislation, and many environmental protection regulations were being promulgated and implemented, including Environmental Protection Law of the People's Republic of China, Law on Appraising of Environment Impacts of the People's Republic of China, Atmospheric Pollution Prevention and Control Law of the People's Republic of China, Water Pollution Prevention and Control Law of the People's Republic of China, Solid Wastes Pollution Prevention and Control Law of the People's Republic of China, Soil Pollution Prevention and Control Law of the People's Republic of China, Administrative Measures for Carbon Emission Rights Trading (Trial), Regulations on the Administration of Pollutant Discharge Permits, etc. Such laws highlighted the supervision of environmental protection and monitoring of discharged pollutants by local governments. In addition, our overseas factories strictly complied with their respective local laws and requirements to implement various measures regarding environmental protection and social responsibility. Meanwhile, the Group established its science-based carbon emission reduction targets pursuant to "SBTi Criteria 4.2" in 2021.

二零二一年一月二十四日，國務院頒佈了「排污許可管理條例」，並於二零二一年三月一日起施行，通過加強排污許可管理，來規範排污行為及控制污染物排放。

On 24 January 2021, the State Council promulgated the "Regulations on the Administration of Pollutant Discharge Permits" (排污許可管理條例), which came into effect on 1 March 2021 and serve to regulate the act of discharging pollutants and control the discharge of pollutants through strengthening the management of pollutant discharge permits.

二零二一年二月二十二日，國務院發佈了「關於加快建立健全綠色低碳循環發展經濟體系的指導意見」，以引導各類主體參與健全綠色低碳循環發展的生產體系、流通體系和消費體系，加快基礎設施綠色升級，並構建市場導向的綠色技術創新體系。紡織服裝行業應積極響應並主動參與這項綠色行動計劃，以節能環保、清潔生產、清潔能源等為重點突破，形成綠色環保的新穎產業鏈。環保監管要求的提升，將促進紡織服裝行業對環保的重視和投入，同時也將促進由環保帶來的行業供給側改革。

On 22 February 2021, the State Council promulgated the "Guiding Opinions on Accelerating the Establishment and Improvement of the sound Green and Low-Carbon Circular Development Economic System" (關於加快建立健全綠色低碳循環發展經濟體系的指導意見), with an aim to provide guidance to various entities for participation in and improvement of the production system, circulation system and consumption system under the sound green and low-carbon circular development, accelerate the green upgrade of infrastructures, and build a market-oriented green technology innovation system. The textile and apparel industry should proactively respond to and participate in this green action plan initiative to form a green, environmentally friendly and novel industry chain by achieving breakthroughs primarily on energy conservation, environmental protection, clean production, and clean energy. The more stringent environmental protection regulatory requirements will motivate the textile and apparel industry to pay attention to and invest in environmental protection, and at the same time facilitate the supply-side reform of the industry brought about by environmental protection.

本集團將持續提升企業之可持續發展能力，推進產業高質量發展和生態環境高水平保護的協同，促進產業向綠色低碳方向發展。未來幾年，本集團將通過進一步優化能源消耗結構，尤其是逐步提高以風能電力、太陽能電力等清潔能源的消耗佔比，同時持續改進工藝水平和增加環保設備的產業應用，推進資源的節約使用和循環利用，提高資源的利用效率，提升全產業鏈的清潔生產水平，併力爭碳排放量的逐年下降。

The Group will continue to strengthen its sustainable development capabilities and promote the synergy between high-quality industrial development and high-level protection of the ecological environment in order to procure the industry to follow a green and low-carbon development approach. In the next few years, through further optimising the energy consumption structure gradually, especially by increasing the proportion of clean energy consumption such as wind power and solar power, as well as continuously improving craft process and enhancing the industrial application of environmental protection equipment, the Group will promote resource conservation and recycling, enhance the efficiency of resource utilization, improve the standard of clean production along the entire industry chain, and strive for reduction in carbon emissions year by year.

本集團生產過程中耗用之主要資源是水，電力，蒸汽，天然氣，煤炭和生物質等。本集團的溫室氣體排放主要源於生產過程的能源消耗，温室氣體排放包括範疇一：直接排放（天然氣、生物質燃料和煤）和範疇二：間接排放（電力和蒸氣）。面料生產是能源消耗的主要環節。生產過程中所產生的主要廢棄物為廢水、廢氣、固廢等。

The main resources used in the process of the Group's production is water, electricity, steam, natural gas, coal and biomass. The Group primarily produces greenhouse gases due to energy consumption in the production process, greenhouse gasses emissions include Scope 1: direct emissions (natural gas, biomass fuel and coal) and Scope 2: indirect emissions (electricity and steam). Fabric production is the main process of energy consumption. The main wastes generated from production are wastewater, waste gas and solid waste etc.

通過近幾年對生產設備的連續技改更新，並且不斷開發新能源，解決了面料增產後政府對環保排放指標的限制問題。

Given the continuous technology advancement of production equipment and continuous development of renewable energy in recent years, the problem arose from the governmental limitation on environment emission index following the increase in productivity of fabrics has been solved.

於報告期間，本公司就空氣、溫室氣體排放、排放至水源及土地及產生有害及無害廢物已遵守所有對本公司有重大影響的相關法律及法規。

During the reporting period, the Company has complied with all relevant laws and regulations that have a significant impact on the Company relating to air and greenhouse gas emissions, discharge into water and land, and generation of hazardous and non-hazardous waste.

2. 資源利用

2.1 水資源

本集團在二零二一年度的耗水量是27,271,199噸，比去年上升了約8.59%，集團的主要耗水是來自印染工廠，2021年較2020年相比，面料產量上升了21.5%。由於本集團堅持環保原材料的使用、染色工藝的改善、環保設備的引進及末端水處理後的利用，用水單耗還是持續下降。本集團分別在中國大陸和越南建有污水處理設施進行排放水處理，同時在中國大陸建有15,000噸／天的中水回用設施，中水回用量合共3,392,466噸，對生產過程中排放的水進行清污分流，輕度污染的染色用水經處理後可循環使用，利用率達到30%左右，有效減少了水資源的消耗量和污水的直接排放量，而染色污水經嚴格處理後再進行排放。另外，越南的面料廠區的中水回用項目正在建設，預計2022年年底之前投入使用。中水增加的原因是由於目前僅寧波面料工廠使用中水回用系統，而寧波面料工廠在2021年的產能比2020年有所上升，總用水量隨著產能上升而增加。

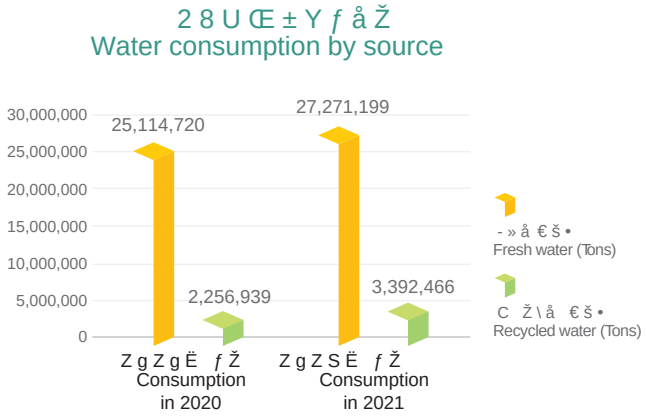
2. Use of Resource

2.1 Water Resource

In 2021, water consumption of the Group for the year is 27,271,199 tons, which increased by approximately 8.59% when compared with last year. The water consumption of the Group was mainly attributable to dyeing factories. The fabric output in 2021 has increased by 21.5% as compared with 2020. Due to the persistent use of environmental friendly raw materials by the Group, improvement in dyeing process, introduction of environmental friendly equipment and the use of reclaimed water after treatment, water consumption nevertheless recorded continuous decrease. The Group has wastewater treatment facility in China and Vietnam respectively to treat discharged water. Meanwhile, the Group has recycled facilities in Mainland China, with a capacity of 15,000 tons of reclaimed water per day, and we have consumed a total of 3,392,466 tons of reclaimed water. Through sewage spilt-flow in the production process, lightly polluted water for dyeing is recycled after treatment with a usage rate of approximately 30%. Thus, it effectively lower the consumption in water resources and the volume of direct wastewater discharge, and dyed polluted water is discharged after strict treatment. In addition, the reclaimed water recycling facilities at the fabric factory area in Vietnam are under construction and are expected to be available for use before the end of 2022. The increase in reclaimed water was due to the fact that currently only the fabric factory in Ningbo used the reclaimed water recycling system and the production capacity of the fabric factory in Ningbo in 2021 increased as compared to 2020, which resulted in a corresponding raise in total water consumption following such increase in production capacity.

本集團計劃在未來幾年內通過設備升級、節水技術研究、越南中水系統建設、管理細化等方式，目標在2025年之前面料單位用水效率較2020年水準提高20%。

The Group planned to increase the efficiency in water usage of fabric units by 20% before 2025, as compared with 2020, through methods such as equipment upgrading, water conservation technology research, construction of reclaimed water recycling facilities in Vietnam, improved management, etc. in the upcoming years.



2.2 直接能源

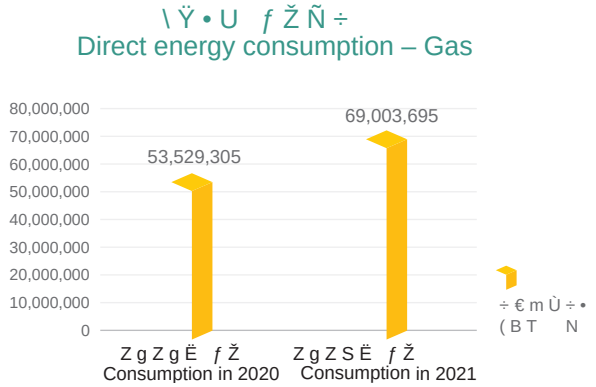
2.2.1 天然氣

目前，寧波工廠已全面使用天然氣作為基礎燃料，有效降低了對大氣環境的不利影響。二零二一年度本集團天然氣消耗總量為69,003,695立方米，較上年同期上升28.91%，而所排放的二氧化碳當量約為157,308噸。燃氣消耗量上升是因為天然氣的使用主要來自寧波面料產區，由於寧波面料產區在2021年的產能比2020年有所上升，因此，本集團的天然氣使用總量也較2020年有所上升。

2.2 Direct Energy

2.2.1 Natural gas

Currently, Ningbo factories are completely using natural gas as basic fuel, thus effectively alleviating the adverse impact on the atmosphere. In 2021, the Group consumed a total of 69,003,695 m^3 of natural gas, representing an increase of 28.91% as compared to the corresponding period last year, with approximately 157,308 tons of carbon dioxide equivalents emitted. The increase in gas consumption volume was due to the fact that natural gas was mainly consumed by the fabric production site in Ningbo, the production capacity of which in 2021 increased as compared to 2020. As such, the total natural gas consumption volume of the Group raised as compared to 2020.

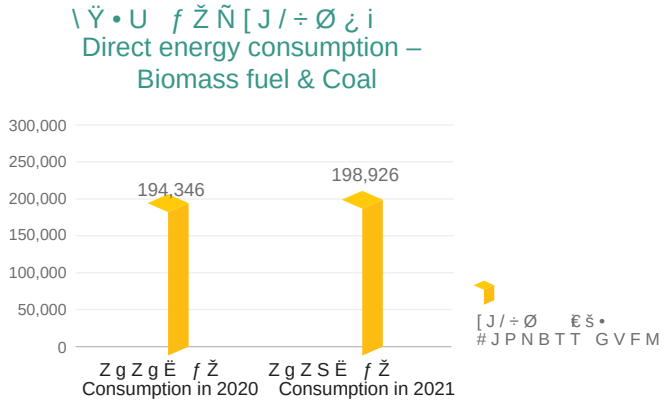


2.2.2 生物質燃料和煤

於二零二一年度，環保生物質及煤的消耗總量是198,926噸，較上年度上升了2.36%，上升的原因是今年的煤炭熱值比往年減小了，導致煤炭的使用量有稍許增加。而所排放的二氧化碳當量約為400,447噸。去年本集團所有的制衣工廠完成了去煤化，截止2021年底只有位於越南的面料工廠使用煤炭。

2.2.2 Biomass and Coal

In 2021, the total consumption of environment-friendly biomass and coal was 198,926 tons, representing an increase of 2.36% as compared to that of last year, because the heat value of the coal is slightly lower than the one in previous years, resulting in a slight increase in consumption of coal, with approximately 400,447 tons of carbon dioxide equivalents emitted. All of the garment factories of the Group had completed the coal phase-out process last year. Coal was consumed only by the fabric factory in Vietnam by the end of 2021.



*2.2.3 柴油和汽油**

本集團在本年度通過運輸工具所用的柴油合共1,717,391升，而所排放的二氧化碳當量是1,280噸，所用的汽油合共174,705升，而所排放的二氧化碳當量是108噸，合共所排放的二氧化碳當量是1,388噸。

*2.2.3 Diesel fuel and gasoline**

During the year, the Group used a total of 1,717,391 litres of diesel fuel for motor vehicles, which emitted 1,280 tons of carbon dioxide equivalents, and used 174,705 litres of gasoline in total with 108 tons of carbon dioxide equivalents emitted. The total carbon dioxide equivalents emitted was 1,388 tons.

2.3 間接能源

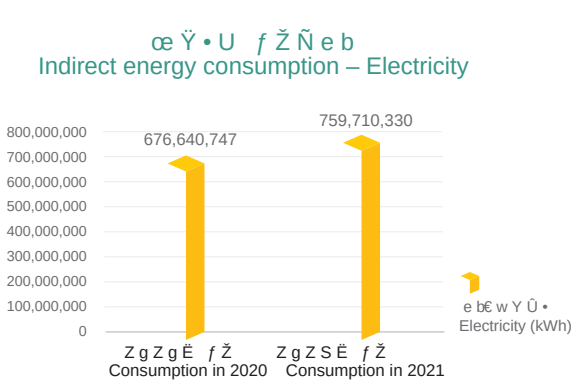
2.3.1 電力

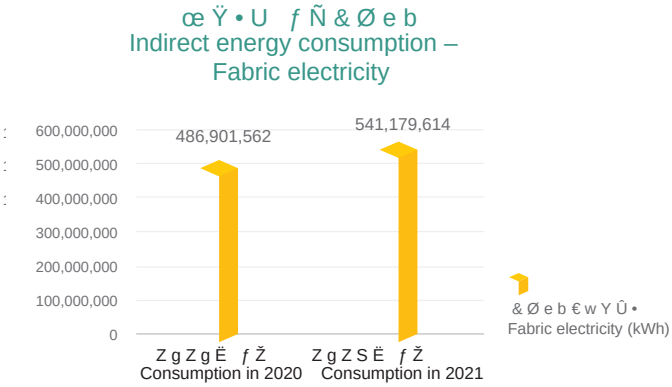
本集團二零二一年度電力總消耗量為759,710,330千瓦特小時(其中740,152,712千瓦特小時為外購普通電力，15,000,000千瓦時外購綠色電力，4,557,618千瓦特小時為太陽能自發自用)，比去年同期上升12.28%。相當於二氧化碳當量排放403,487噸。電力上升主要是因為二零二一年集團整體產量上升。於二零二一年度，本集團的面料產量是237,218噸，較上年上升了21.50%，面料工廠的電力消耗是541,179,614千瓦特小時，較上年增加了約11.15%。

2.3 Indirect Energy

2.3.1 Electricity

The total consumption of electricity of the Group in 2021 was 759,710,330 kWh (in which 740,152,712 kWh was purchased grid electricity, 15,000,000 kWh was purchased as green electricity and 4,557,618 kWh was self-generated solar power for internal use), representing a year-on-year increase of 12.28%, which was equivalent to 403,487 tons of carbon dioxide equivalents emission. The increase in use of electricity was mainly attributable to the increase in overall output in 2021. In 2021, the fabric output of the Group was 237,218 tons, representing an increase of 21.50% as compared to that of last year. The electricity consumption of the fabric factories was 541,179,614 kWh, representing an increase of approximately 11.15% as compared to last year.



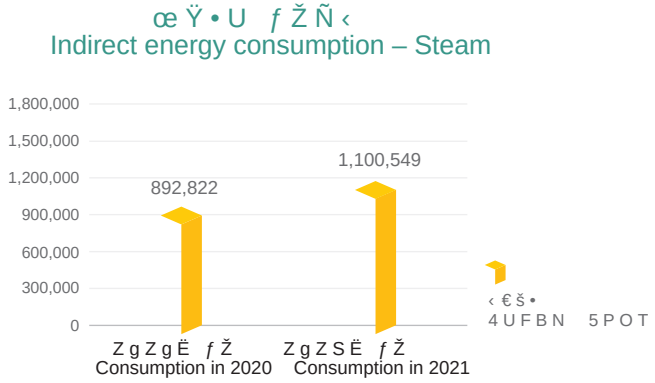


2.3.2 蒸汽

二零二一年度外購蒸汽量為1,100,549噸，比去年同期上升了約23.27%，而所排放的二氧化碳當量約為286,104噸。外購蒸汽增加是由於外購蒸汽的使用主要來自寧波面料產區，由於寧波面料產區在2021年的產能比2020年有所上升，因此，外購蒸汽總用量較2020年有所增加。寧波工廠外購之蒸汽來自附近之熱電廠。此等蒸汽為該發電廠發電過程中之副產品。

2.3.2 Steam

In 2021, the volume of outsourced steam was 1,100,549 tons, representing a year-on-year increase of approximately 23.27%, with approximately 286,104 tons of carbon dioxide equivalents emitted. The increase in outsourced steam was due to the fact that outsourced steam was mainly consumed by the fabric production site in Ningbo, the production capacity of which in 2021 increased as compared to 2020. As such, the total outsourced steam consumption volume raised as compared to 2020. The steam purchased for the Ningbo plant is purchased from a nearby power plant. This part of the steam is the by-product of power generation process.



二零二一年和二零二零年直接能源消耗量、間接能源消耗量和水的消耗量的強度請參見下表：

Please refer to the following table for the intensity of direct energy consumption, indirect energy consumption and water consumption in 2020 and 2021:

	二零二零年 2020	**二零二一年 2021**
耗水量的強度（噸／千件） The intensity of water consumption (Tons/k pieces)	57.1	**55.7**
直接能源消耗量的強度－燃氣（立方米／千件） The intensity of direct energy consumption – Gas (m^3/k pieces)	121.7	**140.8**
直接能源消耗量的強度－生物質燃料及煤（噸／千件） The intensity of direct energy consumption – Biomass fuel & Coal (Tons/k pieces)	0.4	**0.4**
間接能源消耗量的強度－電力（千瓦特時／千件） The intensity of indirect energy consumption – Electricity (kWh/k pieces)	1,537.8	**1,550.4**
間接能源消耗量的強度－蒸氣（噸／千件） The intensity of indirect energy consumption – Steam (Tons/k pieces)	2.0	**2.2**
二氧化碳排放當量的強度 – CO_2e（噸／千件） The intensity of carbon dioxide equivalent emission	2.64	**2.56**

附註： 強度之計算為總消耗量與每年針織服裝的總生產量之比率。

Note: Intensity represents the ratio between total consumption and total production of knitwear each year.

二零二一年，儘管總耗水量隨著產量上升而增加，耗水量強度下降的原因是採用了一系列節水節電設備改造升級，例如：染整設備更新及使用連續式水洗設備等等，其他能源的消耗強度有輕微增加是因為去年工廠運行過程中有在建工程和受到疫情影響，固定能耗都有所增加。但是通過綠電購入、光伏增設、蒸汽改電、精細管理等措施，總體碳排放強度與之前相比下降3%。

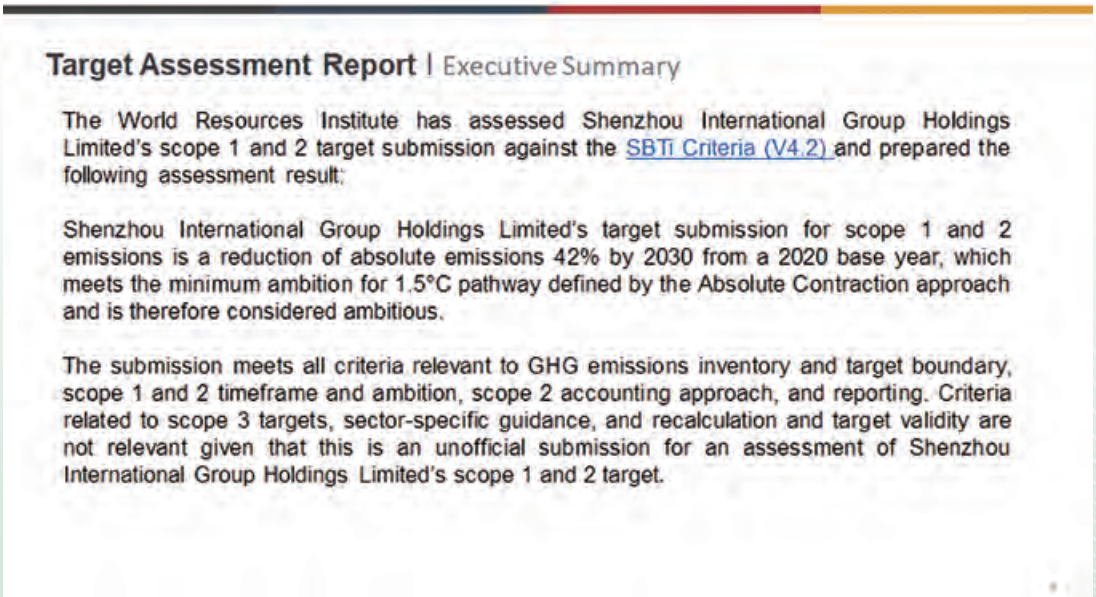
In 2021, despite the increase total water consumption following the increase in output, the decrease in water consumption intensity is attributable to the modification and upgrade of a series of water and electricity conservation equipment, such as the upgrade of dyeing and finishing facility and the usage of continuous washing equipment, etc. The slight increase in the intensity of consumption of other energy was due to the impact of the pandemic on the operating process of the factories last year. The consumption of fixed energy increased as well. Through measures such as purchase of green electricity, the addition of photovoltaics, the transition from steam to electricity and refined management, the intensity of total carbon emission, however, is reduced by 3% compared to 2020.

本集團承諾加入氣候行動。依照science-based target，設立集團scope 1和scope 2的減排計劃。

- 範圍：集團範圍內的scope 1 & scope 2的碳排放絕對值
- 基準年：二零二零年
- 目標：到二零三零年將該範圍的排放較二零二零年減少42%
- 核准單位：World Resource Institute (附件如下圖)
- 披露平台：CDP
- 主要措施：持續能效提升，大力開發屋頂太陽能等新能源，積極採購綠電，結合當地資源，努力往煤炭改生物質方向實現能源結構轉型。

The Group promised to join the climate action. Both scope 1 and scope 2 emission reduction plans of the Group have been built in accordance with science-based target.

- Scope: Absolute Carbon Emission of scope 1 and scope 2 within the Group boundary
- Baseline Year: 2020
- Objective: to reduce the emission within the scope by 42% in 2030 as compared with 2020
- Authorised Unit: World Resource Institute (attachments as below)
- Disclosure Platform: CDP
- Major Measures: Continuous efficiency upgrading, vigorous development of renewable energy such as rooftop solar power, proactive purchase of green electricity, making our best effort to realise the transformation of energy structure from coal to biomass with local resources.



Target Assessment Report | Executive Summary

The World Resources Institute has assessed Shenzhou International Group Holdings Limited's scope 1 and 2 target submission against the SBTi Criteria (V4.2) and prepared the following assessment result:

Shenzhou International Group Holdings Limited's target submission for scope 1 and 2 emissions is a reduction of absolute emissions 42% by 2030 from a 2020 base year, which meets the minimum ambition for 1.5°C pathway defined by the Absolute Contraction approach and is therefore considered ambitious.

The submission meets all criteria relevant to GHG emissions inventory and target boundary, scope 1 and 2 timeframe and ambition, scope 2 accounting approach, and reporting. Criteria related to scope 3 targets, sector-specific guidance, and recalculation and target validity are not relevant given that this is an unofficial submission for an assessment of Shenzhou International Group Holdings Limited's scope 1 and 2 target.

Target Assessment Report | Overview

Company name:	Shenzhou International Group Holdings Limited
Assessment delivered by:	Zola Berger-Schmitz, World Resources Institute
Date assessment finalized:	November 8th, 2021
Target assessment result:	Scope 1 and 2 target meets all criteria

3. 排放物

在本年度，本集團在經營過程中對環境及天然資源無重大影響，因此，層面A3（環境及天然資源）及其關鍵績效指標A3.1（描述業務活動對環境及天然資源的重大影響及已採取管理有關影響的行動）對於集團不適用，故本環境、社會及管治報告中不披露。而相關的環保和天然資源的政策方面，本集團的廢水、廢氣、噪聲均符合排放標準。在廢水排放方面，本集團目前的廢水排放優於標準排放。

本集團重視污染物的全過程控制，在確定合作供應商時，重視其所提供原料之環保性；各生產部門持續改進生產工藝，力求提高工藝上的環保性；優化能源結構，逐步增加對清潔能源的使用；適時更新舊設備，通過引進更加環保、低耗的先進設備以減少資源的消耗量和污染物的排放量。本集團目標在未來3年內，將各項廢棄物排放強度的水平維持在現有水平以下。

在污染物的末端處理上，嚴格遵守政府之相關規定，確保合格排放。

3. EMISSIONS

In the current year, the Group's operation has no significant impact on the environment and natural resources. Therefore, Aspect A3 (Environment and Natural Resources) and its KPI A3.1 (Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them) are not applicable to the Group and are not disclosed in this ESG report. In terms of the relevant policy in environmental protection and natural resources, the waste water, waste gas and noise of the Group comply with emission standards. In terms of the emission of waste water, the current emission of waste water of the Group is better than standard.

The Group pays attention to the control of pollutants in the whole process and attaches importance to the environmental protection performance of raw materials provided by suppliers in determination of suppliers. Each production department continues to improve technique and tries to enhance the level of environmental protection in technique. It optimizes energy structure and gradually increases the use of clean energy. It upgrades old equipment promptly through introduction of advanced and greener equipment with low consumption to reduce the consumption of resources and emission of pollutants. The Group targets to maintain the levels of various waste emissions intensity lower to the current levels within the next 3 years.

In the final treatment of pollutants, it strictly complies with relevant requirements of government and ensures compliance with standards in emission.

3.1 廢水排放

本集團採取以下的措施以達到減少污水排放的目的。包括但不限於，通過染色工藝技術創新，更新染整設備，染整設備技術改造等，以及使用連續式印花水洗和數碼印花等技術減少用水量和污水量。

本集團正在研究如何對排放廢水進行膜處理，為了達到排放廢水進一步減量和回收再利用目的，該技術將被應用到在建的越南中水回用系統當中。

為使排污符合排放標準，本集團的寧波和越南生產基地在竣工後即建成一體化污水處理設施。本集團根據生態環保局之要求進行定期檢查。各有關環保部門已在污水排放口安裝在線探測裝置。

本集團廢水排放檢查頻率：現場檢查為實時監測；取樣檢查為每三個月一次。

3.1 Emission of Sewage

The Group adopted the following measures, which included but not limited to the reduction of water consumption and sewage volume by carrying out actions such as technological innovation of dyeing process, upgrade and technological improvement of dyeing and finishing facilities as well as measures such as continuous washing after printing and digital printing in order to reach the target of the decreasing emission of sewage.

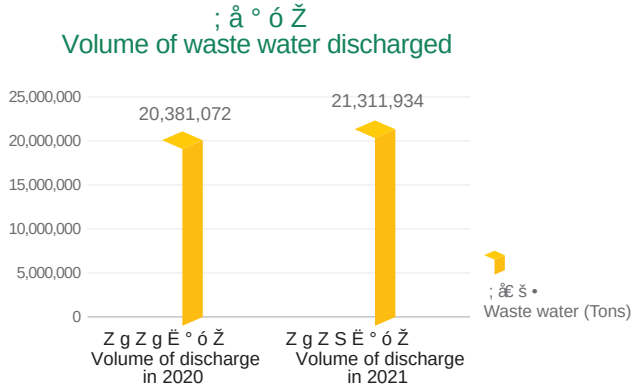
The Group is studying the layered treatment for waste water, to reach the target of further lowering the waste water discharge and recycling for reuse. The technology is set to be applied in the reclaimed water recycled facilities under construction in Vietnam.

The Group has set up integrated sewage treatment facilities in its Ningbo and Vietnam production bases since construction completed to comply with the emission standards before discharging. It carries out regular inspections according to the Ecology Environmental Protection Bureau's requirements. The respective environmental protection authorities have installed online detection devices at the sewage outfalls.

The frequency of inspection on wastewater discharge of the Group is: realtime monitoring for on-site inspection; once every three months for sample inspection.

本集團在二零二一年度的廢水排放量為21,311,934噸，較上年度增加4.57%。廢水排放量上升的原因是寧波面料產能有所增加，集團總體面料產量同比增加了21.5%。

The Group has discharged 21,311,934 tons of waste water in 2021, representing an increase of 4.57% compared to that of last year. The increase in volume of waste water discharged was due to an increase in production capacity of fabrics in Ningbo. The total fabric output of the Group increased year-on-year by 21.5%.



3.2 廢氣排放

本集團生產過程產生之大氣污染物為煙塵、二氧化硫和氮氧化物。本集團亦對煙氣排放進行在線監測，以確保排污符合排放標準。各有關環保部門亦已在煙氣排放口安裝在線監測裝置。在寧波廠區煙氣排放檢查頻率：現場檢查為實時監測；取樣檢查為每三個月一次。

在主要用煤的越南面料產區通過每季度一次的廢氣排放檢測，以及安裝在鍋爐煙囪處的廢氣在線監測系統，對工廠主要廢氣排放設備包括鍋爐，定型機和烘乾機進行排放量監控，以確保達到當地法律對於二氧化硫，氮氧化物等廢氣排放的要求。

3.2 Emission of Waste Gas

The air pollutant generated from production process of the Group are mainly smoke and dust, sulphur dioxide and nitrogen oxide. The Group also conducts online monitoring on smoke emission to ensure compliance with the emission standards before discharging. The respective environmental protection authorities have also installed online monitoring devices at our smoke outfalls. At our Ningbo factory area, the frequency of inspection on smoke and gas emission is: real-time monitoring for on-site inspection; once every three months for sample inspection.

In the fabric production site in Vietnam which primarily used coal, emission was monitored and controlled for major equipment which emitted waste gas in the production site such as boilers, setting machines and drying machines through quarterly waste gas emission inspections and the online monitoring system installed at the boiler chimneys. The purpose was to ensure compliance with the requirements on sulphur dioxide, nitrogen oxide and other waste gas emission under local laws.

於二零二一年在寧波廠區全面改用天然氣鍋爐，有效提高了鍋爐效能，停止煤及生物質等燃料，降低氮氧化物的排放。

The Ningbo factory area fully used natural gas boilers in 2021, which enhanced the efficiency of the boilers effectively, and stopped the use of fuel like coal and biomass etc.

二氧化硫的排放主要來自於煤炭鍋爐和生物質鍋爐，本集團在二零二一年度的二氧化硫排放量為295.94噸，較上年度減少了3.08%，下降的主要原因是越南面料工廠對硫化物的排放進行了有效控制管理。

The main sources of sulphur dioxide emissions are coal boilers and biomass boilers. The Group emitted 295.94 tons of sulphur dioxide in 2021, representing a decrease of 3.08% as compared to that in last year. The decrease was mainly attributable to the effective control management of sulfide emissions by the fabric factory in Vietnam.

氮氧化物的排放主要來自於煤炭鍋爐，生物質鍋爐和天然氣鍋爐。二零二一年氮氧化物的排放量為143.30噸，較二零二零年減少33.56%，下降尤為明顯，下降的主要原因是寧波面料工廠的天然氣鍋爐安裝了氮氧化物中和裝置。

The main sources of nitrogen oxide emissions are coal boilers, biomass boilers and natural gas boilers. 143.30 tons of nitrogen oxide were emitted in 2021, representing a decrease of 33.56%, which is particularly significant, as compared to that in 2020. The decrease was mainly attributable to the installation of nitrogen oxide neutralisation devices in natural gas boilers of the fabric factory in Ningbo.

煙塵的排放主要來自於煤炭鍋爐和生物質鍋爐，本集團二零二一年煙塵的排放量為48.19噸，較二零二零年降低了9.28%，下降的主要原因是各個地區對煙塵排放的控制都有所提升。

The main sources of smoke and dust emissions are coal boilers and biomass boilers. The Group emitted 48.19 tons of smoke and dust in 2021 representing a decrease of 9.28% as compared to that in 2020. The decrease was mainly attributable to the improvement in smoke and dust emissions control in each area.

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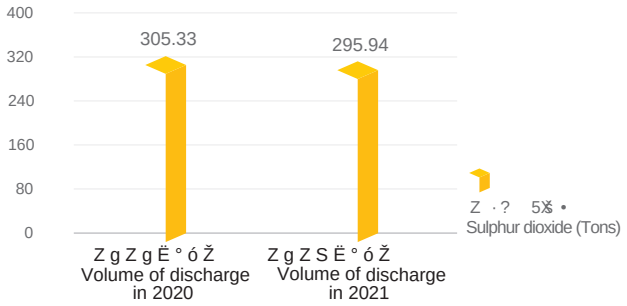
Volume of sulphur dioxide discharged



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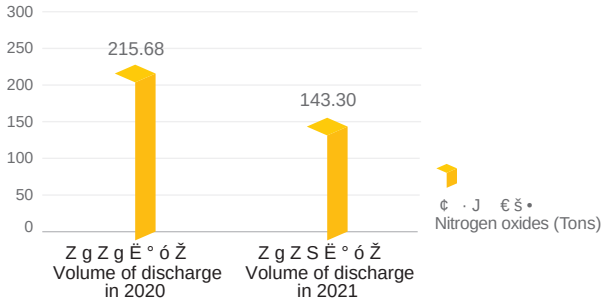
Volume of nitrogen oxides discharged



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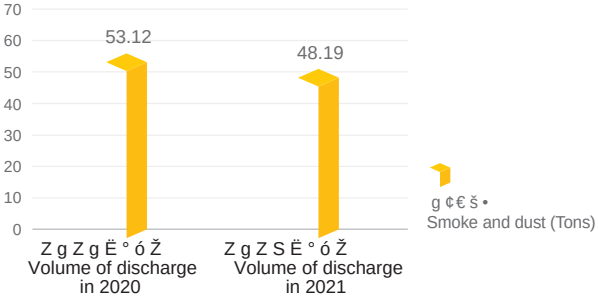
Volume of smoke and dust discharged



3.3 固廢排放

二零二一年統計了整個集團危險廢物和非危險廢物的排放量。

於二零二一年度，本集團的排放的危險廢物合共1,006噸，比上年同期減少了30%，主要的排放物是廢油、廢燈管和廢油墨以及放置化學品的塑料空桶。

同時，本集團也設置了非危險廢物的存放區，最終交由有資質的單位合規處理，二零二一年排放的非危險廢物合計159,173噸，比上年同期上升了約9%，因為整體成衣產量有所上升。非危險廢棄物包括了可回收的塑料、紙製品、廢布料、日常垃圾、廚餘垃圾、污泥和煤渣。

二零二一年寧波面料工廠由於安裝了芬頓系統，寧波產區的污泥量減少了約50%。越南地區和柬埔寨地區的化學品包裝物等危險廢物由資質單位進行處理，而寧波地區的化學品包裝物一部分由供應商回收處理和一部分由資質單位進行處理。

3.3 Emission of Solid Waste

The statistics calculation included hazardous wastes and non-hazardous wastes emissions of the whole Group for 2021 has been conducted.

In 2021, the emission of hazardous wastes of the Group was 1,006 tons in aggregate, representing a decrease of approximately 30% as compared to that of last year and the major emissions are wasted oil, wasted fluorescent light and wasted ink as well as empty used plastic drums for storing chemicals.

In addition, the Group has also set up storage areas for non-hazardous wastes, which were eventually passed to qualified organisations for eligible processing. The total amount of non-hazardous wastes discharged was 159,173 tons in 2021, which increased by approximately 9% as compared with same period last year, mainly due to the increase in total production volume of garment. Non-hazardous wastes include recyclable plastics, paper product, waste fabrics, domestic waste, kitchen waste, sludge and cinder.

The volume of sludge of production sites in Ningbo decreased by 50% due to the installation of Fenton system in fabric factory in Ningbo in 2021. The hazard wastes, such as chemical packaging material in Vietnam and Cambodia were handled by the qualified companies, but some portions of chemical packaging materials in Ningbo district were handled by the suppliers and some portions were handled by the qualified companies.

本集團對所有固體廢物進行分類及處理，而部分固體廢物則將被循環再利用，以盡量減少環境污染。根據廢物分類及管理相關規定，本集團在中國、越南和柬埔寨的產區及相關的辦事處將所有非危險固體廢物（除煤渣和污泥）分為下表四類。二零二一年隨著本集團的產能上升，各項可回收廢棄物總量有所增加，同時也提升了可回收率。

The Group conducts a classification and treatment process for all solid waste, part of which will be recycled and reused to minimize its pollution to the environment. Our Group classifies all non-hazardous solid waste (except for cinder and sludge) into four categories in the below table according to the relevant Regulations for Waste Classification and Management in the production sites and the relevant offices in China, Vietnam and Cambodia. As the production capacity of the Group increased in 2021, the total volume of various recyclable wastes increased, and at the same time raised the recovery rate.

類別 Category	實例 Examples	廢物來源 Source of waste	二零二零年重量（噸） Weight in 2020 (tons)	**二零二一年重量（噸） Weight in 2021 (tons)**	處理 Handling
可再利用或可循環之紙板或紙製品 Reusable or recyclable paperboards and papers	廢紙盒、廢紙筒、廢紙芯、廢紙 Waste paper boxes, waste paper cones, waste paper cores, waste papers	針織、染色及製衣過程 Knitting, dyeing and garment making process	14,482.22	**18,650.35**	賣給第三方進行回收 Sold to third party(ies) for recycling
可再利用或可循環之廢織物 Reusable or recyclable waste fabric	織物、雜毛料 Waste fabric, pied hair	針織、染色及製衣過程 Knitting, dyeing and garment making process	32,124.04	**49,566.60**	賣家進行回收 Recycled by seller(s)
再利用或回收之非危險廢物 Reused or recycled non-hazardous waste	塑料線芯、塑料袋 Plastic wire cores, plastic bags	針織、染色及製衣過程 Knitting, dyeing and garment making process	2,097.36	**3,016.50**	賣給第三方進行回收 Sold to third party(ies) for recycling
並無再利用或回收之非危險廢物 Non-hazardous waste that cannot be reused or recycled	日常垃圾 Household garbage	餐廳及辦公室 Canteen and office	10,756.45	**12,981.33**	日常、餐廚垃圾與第三方簽訂協議承包處理 Disposal of household garbage and food waste were contracted to third party(ies)

於二零二一年度，本集團的衣服包裝物料合共約33,281噸，較上年度上升了約8.15%。主要是因為生產件數上升，令包裝物料的數目也同時上升，但是大多數包裝物都進行回收處理。

In 2021, packaging materials of the Group's garment totalled approximately 33,281 tons, representing an increase of approximately 8.15% as compared to that of last year, which was attributable to the increase in packaging materials due to the growth in production volume. However, most of the packaging materials are recycled.

二零二零年及二零二一年廢水排放量、二氧化硫排放量、氮氧化物排放量、煙塵排放量、危險廢物排放量和非危險廢物排放量的強度請參見下表：

Please refer to the following table for the intensity of discharged volume of waste water, sulphur dioxide, nitrogen oxides, smoke and dust, hazardous waste and non-hazardous waste in 2020 and 2021:

	二零二零年 2020	**二零二一年 2021**
廢水排放量的強度（千克／千件） The intensity of discharged volume of waste water (kg/k pieces)	46,320	**43,494**
二氧化硫排放量的強度（千克／千件） The intensity of discharged volume of sulphur dioxide (kg/k pieces)	0.69	**0.60**
氮氧化物排放量的強度（千克／千件） The intensity of discharged volume of nitrogen oxides (kg/k pieces)	0.49	**0.29**
煙塵排放量的強度（千克／千件） The intensity of discharged volume of smoke and dust (kg/k pieces)	0.12	**0.10**
危險廢物排放量的強度（千克／千件） The intensity of discharged volume of hazardous waste (kg/k pieces)	3.27	**2.05**
非危險固體廢物（除煤渣和污泥）排放量的強度（千克／千件） The intensity of discharged volume of non-hazardous solid waste (except for cinder and sludge) (kg/k pieces)	135.14	**171.68**

附註： 強度之計算為總排放量與每年針織服裝的總生產量之比率。

Note: Intensity represents the ratio between total discharged volume and total production of knitwear each year.

4. 節能減排

本集團認為在環境保護方面的持續投入和成效提升，將成為未來重要的行業門檻和競爭優勢。本集團將努力促進水資源和各類能源利用效率的進一步提高，降低生產對周邊環境的不利影響，推行完整過程的清潔生產，並確保最終消費產品的環保性。

4. Energy Conservation and Emission Reduction

The Group believes that the ability in enhancing efficiency and continuing to invest in environmental protection will become the major entry barrier and competitive advantage of the industry in the future. As a result, the Group will make every effort to further improve the utilization efficiency of water and other resources so as to alleviate the adverse impact of production activities on the surrounding environment, we will promote clean production throughout the entire production process and we will ensure that the end consumer products are environmental friendly.

本集團在二零二一年電力總消耗量為759,710,330千瓦特小時，其中通過發電廠外購的普通電量為740,152,712千瓦特小時，所對應的二氧化碳排放當量是403,487噸，其餘的15,000,000千瓦特小時和4,557,618千瓦特小時的電量分別是通過綠電採購和屋頂太陽能裝置自發自用產生，減少相應的二氧化碳排放當量為12,047噸，本集團於2021年綠電使用比例達到總用電量的2.6%。本集團在本年度用作處理污水的耗電量大約是20,569,874千瓦特小時。此外，本集團在本年度處理中水用電約是152,352千瓦特小時和處理清潔水用電約是1,452,653千瓦特小時，合共用電約是1,605,005千瓦特小時。

The Group's total electricity consumption in 2021 was 759,710,330 kWh, of which 740,152,712 kWh was grid electricity purchased through power plants with 403,487 tons of corresponding carbon dioxide equivalents emitted, and the remaining 15,000,000 kWh and 4,557,618 kWh was from the purchased green electricity and the self generated by the rooftop solar equipment respectively, reducing 12,047 tons of corresponding carbon dioxide equivalents emissions. The consumption of green electricity by the Group accounted for 2.6% of total electricity consumption in 2021. The electricity of the Group used for treating waste water was approximately 20,569,874 kWh for the year. Moreover, the electricity consumption of the Group for reclaimed water and clean water in the current year was approximately 152,352 kWh and 1,452,653 kWh, respectively, which equals to 1,605,005 kWh in aggregate.

4.1 增加綠色植物

本集團在本年度所種的樹木有73,063棵覆蓋254,093平方米的草坪及2,707平方米的麥冬，樹木和草坪的增加主要來自越南和柬埔寨新增工廠。於二零二一年本集團通過植樹活動，秉承傳統美德，發揮了團隊合作精神。同時，傳遞了綠色正能量，並帶動更多的人加入到播撒綠色、愛護環境、保護大自然的行動中來，為公司的綠色發展做出應有的貢獻。

4.1 Increase in green vegetation

The Group planted 73,063 trees in the current year, covering lawns of 254,093 m^2 and Radix Ophiopogonis of 2,707 m^2. The increase in trees and lawns was mainly attributable to the new factory in Vietnam and Cambodia. In 2021, the Group upheld traditional virtues and demonstrated the spirit of teamwork through tree planting activities. At the same time, we delivered positive green energy and procured more people to participate in activities related to promotion of green ideas, environmental protection and nature conservation, with an aim to make proper contributions to the Company's green development.

4.2 節能減排項目計劃表

這是訂立能源使用效益目標及為達到這些目標所採取的步驟：

4.2 The table of Energy Conservation and Emission Reduction Program

Set out below is our energy consumption efficiency targets, and the initiatives we have adopted to achieve those targets:

#	項目 Programs	有關 Relevant	2017	2018	2019	2020	2021	2022				2023	Benefits項目效益
								Q1	Q2	Q3	Q4		
1	110台染機更新 110 dyeing machine upgrade	節水節能 Water/Energy	第一期 Phase I	第二期 Phase II		第三期 Phase III							節水/節能30% Reduce water/energy consumption by 30%
2	40台高彈面料染機更新 40 dyeing machine upgrade for highelastic fabric	節水節能 Water/Energy											節水/節能5% Reduce water/energy consumption by 5%
3	50 台新染機投資 50 dyeing machine investment	節水節能 Water/Energy											節水/節能30% Reduce water/energy consumption by 30%
4	紗染機更新 Yarn-dyeing machine upgrade	節水節能 Water/Energy	第一期 Phase I	第二期 Phase II									節水/節能31% Reduce water/energy consumption by 31%
5	試樣車間升級 Sampling machine upgrade & workshop reconstruction	節水節能 Water/Energy											提高打樣效率，節能節水 Enhance sampling efficiency, energy efficiency and water conservation
6	定型機更新 Setting machine upgrade	節能 Energy											節約能源，提高效率 Reduce energy consumption and improve efficiency
7	成衣水洗車間翻新 Garment Washing workshop retrofit	節水節能 Water/Energy											節水40% Reduce water consumption by 40%
8	冷凝/冷卻水回收 Condensed / Cooling water recycling	節水節能 Water/Energy											隨著設備更新，同時進行 (節水) Carry out during equipment upgrade (water conservation)
9	生物質鍋爐轉化到天燃氣鍋爐 Replace Biomass boiler to nature gas boiler	節水節能 Water/Energy											提升鍋爐效率，減少固廢, 減少廢氣排放 Enhance boiler efficiency, reduce solid waste and waste gas emissions
10	增加餘熱回收能力 (紗染) Increase the capacity on waste heat recovering (yarn dye)	節能 Energy											節能30% Reduce energy consumption by 30%
11	壓縮空氣系統升級 Compressed air system upgrade	節能 Energy											節能25% Reduce energy consumption by 25%
12	廢水管道重新敷設 Wastewater pipe re-laying	節水 Water	第一期 Phase I	第二期 Phase II		第三期 Phase III							隨著設備更新，同時進行 Carry out during equipment upgrade
13	新鮮水管道重新敷設 Water pipe re-laying	節水 Water											防止跑冒滴漏，方便維修 Avoid evaporating, emitting, dripping or leaking, and for easier maintenance
14	廢水處理和中水回用能力升級 WWTP upgrade and recycled water capacity extension	節水減排 Water/EVN				第一期 Phase I	第二期 Phase II						回用水能力提升20% 減少污泥排放 Enhance the ability to reuse water by 20%, reduce sludge discharge
15	新尾氣處理設備 (高溫定型) New tail gas treatment (high temperature setting)	減排 EVN.			第一期 Phase I	第二期 Phase II	第三期 Phase III						綠色排放，降低VOC排放 Green emissions, reduce VOC emission
16	調節池石灰水PH自動加藥 limewater PH Adjustment in WWT process	減排 EVN.											減少污泥，提高污水處理效果 Reduce sludge, and enhance sewage treatment performance
17	生化池曝氣池升級 Aeration system upgrade in A/O process	減排 EVN.											節能節水，改善生化處理效果 Reduce energy and water consumption, and enhance A/O process performance
18	蒸汽閥門保溫 Steam Valve insulation	節水 Water											節能 Reduce energy consumption
19	Cadira省水活性染料推廣 Cadira saving water active dyestuff promotion	節水 Water											省水 Reduce water consumption

#	項目 Programs	有關 Relevant	2017	2018	2019	2020	2021	2022				2023	Benefits項目效益
								Q1	Q2	Q3	Q4		
20	印花連續式水洗 continuous wash-off machine for printing	節水節能 Water/Energy				第一期 Phase I							節水60% Reduce water consumption by 60%
21	逐步替換高效電機 High efficiency motor replacement gradually	節能 Energy			第一期 Phase I	第二期 Phase II							節電5~10% Reduce electricity consumption by 5~10%
22	疏水閥自動開關 automatic switch for drain valve	節水節能 Water/Energy											節約蒸汽15% Reduce steam consumption by 15%
23	天然氣鍋爐氨氣中和氮氧化物 NOx neutralized by ammonia in natural gas boilers	減排 EVN.											減少鍋爐氨氧化物排放 Reduce nitrogen oxide emission of boilers
24	寧波新能源-風能 renewable energy in Ningbo-wind power	減碳 Carbon				可行性研究 Feasibility study							減碳 Reduce carbon emission
25	太陽能 (逐步推廣) Polar PV	減碳 Carbon				可行性研究 Feasibility study	第一期 Phase I	第二期 Phase II				第三期 Phase III	減碳 Reduce carbon emission
26	染後洗脫一體 Post dying process	節能 Energy											乾燥布面，節省10%能源 (定型、烘乾) Dried cloth surfaces reducing 10% of energy (setting, drying)
27	污水處理工藝升級 (芬頓技術) Wastewater treatment process update by FENTON	減少廢棄物 Waste											減少污泥，提高污水處理效果 Reduce sludge, and enhance sewage treatment performance
28	RO 回用水 RO Recycle Water	節水 Water				可行性研究 Feasibility study							進一步增加回用排放水10~15% Further increase the recycling of discharged water for 10-15%
29	購買綠電 Green Power Purchasing	節能 Energy											

Completed 完成　In progress 進行中　Planned 計劃中

5. 節能減排主要項目

5.1 能源結構優化

本集團長期致力於調整能源結構，開發新能源，從傳統能源向清潔能源轉型，做好節能減排工作。

本集團與國家電網在寧波的能源服務公司簽訂了開發分布式光伏項目的戰略合作協議，利用本集團寧波基地的建築物屋頂建設光伏電站，光伏項目所產生的綠色電力由本集團直接使用。

並且積極推動寧波地區某風電項目的開發建設，於二零二零年開始每年都參與政府推動的綠色電力交易。

5. Major energy saving and emission reduction projects

5.1 Optimization of Energy Structure

In the long term, the Group was committed to adjusting the energy structure, developing renewable energy, and transforming from traditional energy to clear energy, striving to do energy saving and emission reduction job.

The Group entered into a framework cooperation agreement for a distributed photovoltaic project with an energy service company under State Grid Corporation of China in Ningbo. A photovoltaic power station was built on the buildings' rooftops of the Group's base in Ningbo and the green electricity generated by the photovoltaic project was to be used directly by the Group.

Also, the Group actively promoted the development and construction of a wind power project in Ningbo region and participated in green electricity deals promoted by the government every year from 2020.

5.1.1 屋頂太陽能

二零二一年，本集團屋頂太陽能的自發自用量達到4,557,618千瓦特小時。

截止二零二一年底投入運行的光伏總裝機容量達到9.95MW，約10萬平方米，較二零二零年底的裝機容量2.2MW增加了330%。二零二一年較二零二零年的光伏發電量增加了63%。

5.1.1 Rooftop solar power

In 2021, the rooftop solar energy generated by the Group for internal use reached 4,557,618 kWh.

As at the end of 2021, the total installed capacity of photovoltaics in use reached 9.95MW and 100,000 m^2, which represented an increase in installed capacity of 330% as compared with the 2.2MW at the end of 2020. The electricity output by photovoltaics in 2021 increased by 63% as compared with 2020.

寧波廠區的太陽能發電板
PV panels in the Ningbo factory area

越南廠區的太陽能發電板
PV panels in the Vietnam factory area

同時，集團計劃在柬埔寨新建工廠和其他地區的產區進行更多的可行性分析，預計將有更多的屋頂太陽能裝置，增加新能源發電比例，減少二氧化碳排放。

At the same time, the Group has planned to conduct more feasibility analyses on the new factory in Cambodia and the production sites in other regions. It is expected that there will be more rooftop solar equipment, resulting in an increase in the proportion of electricity generated from renewable energy and a decrease in carbon dioxide emissions.

屋頂太陽能的發展

Rooftop solar development

5.1.2 風力發電項目

本集團於二零二零年與當地一家風能開發公司進行合作，該項目一期已經於二零一四年併網發電，年平均發電量達到120,000,000千瓦特小時，相對應的二氧化碳當量排放減少75,000噸每年。二期三期項目計劃到二零二五年前後開發建設，規模將大於一期項目。通過本次合作，本集團享有該風電項目所有的綠色能源環境貢獻指標。

5.1.2 Wind power project

In 2020, the Group conducted cooperation with a local wind energy development company. The first phase of the project was connected to the grid for power generation in 2014, with an average annual output of 120,000,000 kWh and a reduction in the corresponding carbon dioxide equivalent emissions of 75,000 tons per year. The second and third phases of the project are planned to be developed and constructed around 2025, the scale of which will be larger than that of the first phase. Through this cooperation, the Group was entitled to the environmental contribution index in terms of green energy.

5.1.3綠色電力交易試點

本集團積極參與國內的綠電交易，二零二一年向浙江省內的光伏和風電等綠電交易市場共計採購15,000,000千瓦特小時的綠電，減少碳排放約9,240噸。

5.1.4煤鍋爐蒸汽和外購蒸汽逐步改電蒸汽發生器

越南的成衣工廠取消使用燃煤鍋爐，而改用電蒸汽發生器。寧波部分成衣廠也已經開始使用電蒸汽發生器，取代部分外購蒸汽。

5.1.3 Pilot green electricity deal

The Group proactively participated in domestic deals green electricity, having purchased 15,000,000 kWh of green electricity in total in green electricity deal markets, such as photovoltaics and wind power, in Zhejiang Province in 2021, which in turn decreased carbon emission by 9,240 tons.

5.1.4 From steam of coal-fired boilers steam and outsourced steam to electrical steam generators gradually

The garment factory in Vietnam has abolished the use of coal-fired boilers and used electrical steam generators instead. Some of the garment factories in Ningbo have commenced to use electrical steam generators to substitute a portion of outsourced steam.