



# 恒安國際集團有限公司

HENGAN INTERNATIONAL GROUP CO., LTD

(Incorporated in the Cayman Islands with limited liability)

(於開曼群島註冊成立的有限公司)

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# 2025

## CLIMATE-RELATED FINANCIAL DISCLOSURES (TCFD) REPORT

### 氣候相關財務信息披露 (TCFD) 報告



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## FOREWORD

Against the backdrop of an increasingly severe global climate crisis, addressing climate change has become one of an unavoidable core challenges in the progression of human social development. In 2025, extreme climate events occurred frequently across the globe, and temperature records continued to break historical extremes. This not only attests to the reality and urgency of climate change, but also underscores its far-reaching impacts on the economy, ecology and social stability. Countries around the world are accelerating their climate action efforts: China's "Dual Carbon" goals have entered a phase of deepened implementation, the Hong Kong Stock Exchange has imposed more stringent compliance requirements for climate information disclosure by listed companies, and international carbon market mechanisms and climate-related financial information disclosure frameworks are being continuously refined. These developments signal that global climate governance is shifting from goal advocacy to mandatory constraints. In this era of transformative global change, enterprises must not only address the operational challenges posed by climate-related risks, but also proactively embrace opportunities for green transition, and serve as builders and leaders of a low-carbon future.

As an enterprise that upholds sustainable development as its core value, Hengan International Group Co., Ltd. (hereinafter referred to as "Hengan", "the Group" or "we") has always regarded addressing climate change as a key component of its long-term corporate strategy. We actively align with the national carbon neutrality goal, proactively benchmark against international advanced practices, and fully integrate climate governance into corporate decision-making, operational management and value chain collaboration. By refining the four-level climate governance framework, deepening climate risk identification and scenario analysis, and comprehensively advancing energy conservation, carbon reduction and green innovation, Hengan is systematically building a future-oriented climate resilience system. In 2025, the Group maintained a stable Grade B rating in the CDP climate change questionnaire assessment, which reflects our continuous progress and commitment to transparency in climate management, and motivates us to strive for higher standards.

## 前言

在全球氣候危機日益嚴峻的背景下，應對氣候變化已成為人類社會發展進程中不可迴避的核心挑戰之一。2025年，全球多地極端氣候事件頻發，氣溫紀錄持續突破歷史極值，這不僅印證了氣候變化的現實性與緊迫性，也凸顯了其對經濟、生態與社會穩定的深遠衝擊。世界各國紛紛加快氣候行動步伐，中國「雙碳」戰略進入深化實施階段，香港交易所對上市公司氣候信息披露提出更嚴格的合規要求，國際碳市場機制與氣候相關財務信息披露框架持續完善，標誌著全球氣候治理正從目標倡導邁向剛性約束。在這一時代變局中，企業不僅需要應對氣候風險帶來的運營挑戰，更應主動把握綠色轉型機遇，成為低碳未來的建設者和引領者。

作為一家以可持續發展為核心價值觀的企業，恒安國際集團有限公司（以下簡稱「恒安」、「本集團」或「我們」）始終將應對氣候變化視為企業長期戰略的重要組成部分。我們積極響應國家碳中和目標，主動對標國際先進實踐，將氣候治理全面融入公司決策、運營管理與價值鏈協同之中。通過完善四級治理架構、深化氣候風險識別與情景分析、全面推進節能降碳與綠色創新，恒安正系統構建面向未來的氣候韌性體系。2025年，本集團在CDP氣候變化問卷評級中穩定保持B級，體現了我們在氣候管理領域的持續進步與透明承諾，也激勵我們向更高標準邁進。



Hengan has always adhered to transparent and professional sustainable development information disclosure. Since 2016, we have released the Environmental, Social, and Governance (ESG) Report annually. This report is Hengan's fourth consecutive climate-related dedicated disclosure document, designed to systematically and objectively present our annual progress in climate governance, strategic planning, action implementation and performance targets to all stakeholders. We fully disclose Scope 1, Scope 2 and Scope 3 greenhouse gas (GHG) emission data, and conduct carbon footprint exploration around the entire product lifecycle. From green raw material procurement, production energy efficiency enhancement, renewable energy application, to warehouse and logistics optimization and low-carbon product R&D, Hengan translates its climate strategy into tangible emission reduction outcomes through multi-dimensional, cross-functional collaborative actions.

Looking forward, Hengan will continue to deepen the development of climate governance mechanisms, accelerate energy structure optimization and technological iteration, promote green supply chain collaboration and circular economy practices, and integrate climate adaptability into business operations and infrastructure planning. We firmly believe that addressing climate change is not only an essential responsibility for enterprises, but also a critical path to driving innovation, enhancing competitiveness and achieving sustainable growth. Hengan is willing to join hands with all parties to jointly explore low-carbon development models and contribute positively to global climate goals and the green transformation of society.

## 1. GOVERNANCE

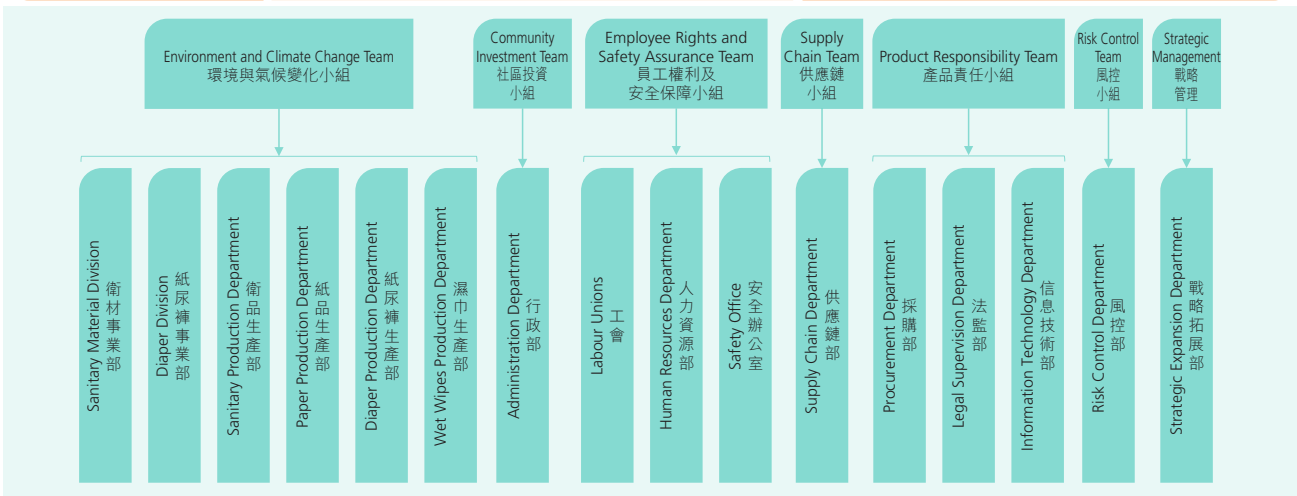
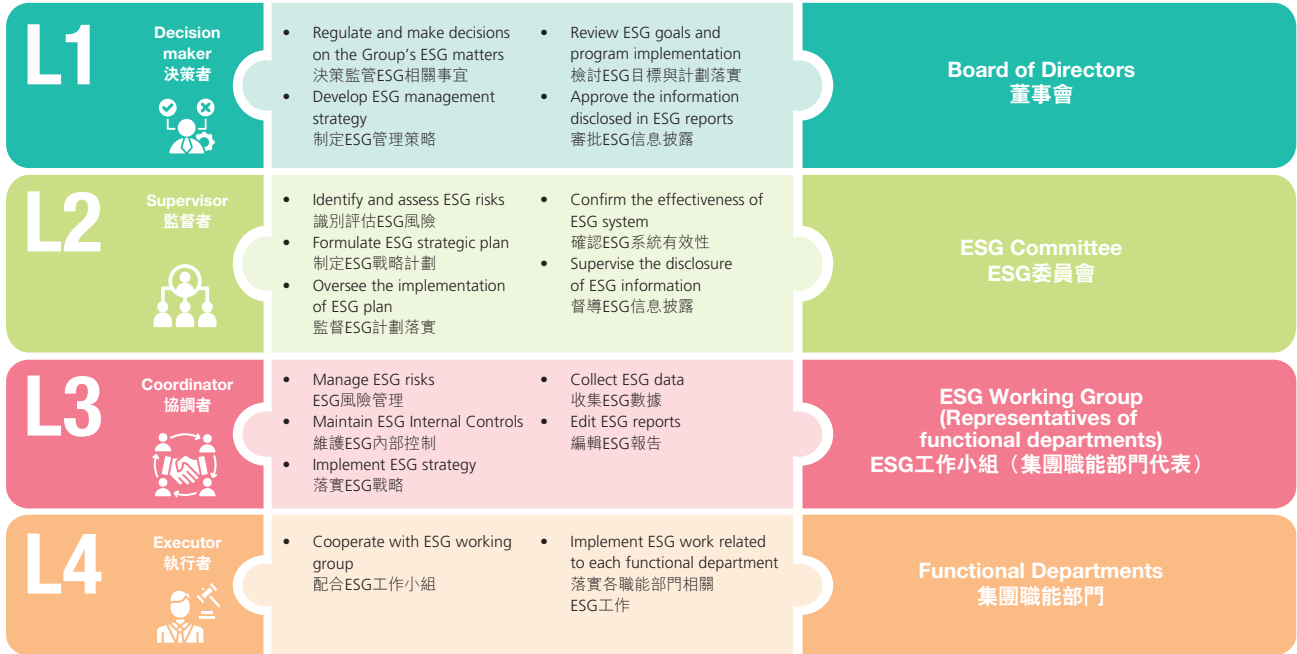
Hengan always believes that a sound climate governance mechanism is a driving force for corporate sustainability. To this end, the Group deeply integrates ESG concepts and climate risk management into strategic decision-making and daily operations, and continuously refines the top-level design of the ESG governance system. At the level of organizational guarantee, Hengan has established a four-level climate governance framework with clear responsibilities: the Board is responsible for strategic decision-making, the ESG Committee is responsible for coordinating and supervising, the ESG working group specializes in coordination, and functional departments are responsible for implementation. This vertically integrated, horizontally collaborative governance network ensures that climate risk management requirements permeate every business node. By internalizing ESG standards into the operation genes, Hengan is forging sustainability competitiveness for the future, so as to lay a solid foundation for high-quality development.

恒安始終堅持透明、專業的可持續發展信息披露。自2016年起，我們每年發佈《環境、社會及管治(ESG)報告》，本報告是恒安連續第四年發佈的氣候相關專項披露文件，旨在向各利益相關方系統、客觀地呈現我們在氣候治理、戰略規劃、行動落實與績效目標等方面的年度進展。我們全面披露範圍1、範圍2及範圍3溫室氣體排放數據，並圍繞產品全生命週期開展碳足跡探索。從綠色原材料採購、生產能效提升、可再生能源應用到倉儲物流優化與低碳產品研發，恒安通過多維度、跨職能的協同行動，將氣候戰略轉化為切實的減排成果。

面向未來，恒安將繼續深化氣候治理機制建設，加快能源結構優化與技術迭代，推動供應鏈綠色協同與循環經濟實踐，並將氣候適應能力融入業務運營與基礎設施規劃。我們堅信，應對氣候變化既是企業必須履行的責任，也是驅動創新、提升競爭力和實現可持續增長的重要路徑。恒安願與各方攜手，共同探索低碳發展模式，為全球氣候目標與社會綠色轉型貢獻積極力量。

### 一 · 治理

恒安始終認為，健全的氣候治理機制是驅動企業可持續發展的動力。為此，本集團將ESG理念與氣候風險管理深度融入戰略決策與日常運營，持續優化ESG治理體系的頂層設計。在組織保障層面，恒安構建了職責分明的四級氣候治理架構：董事會負責戰略決策，ESG委員會統籌監督，ESG工作小組專項協調，各職能部門具體執行。這一縱向貫通、橫向協同的治理網絡，確保氣候風險管理要求精準傳導至每個業務環節，通過將ESG標準內化為運營基因，恒安正在鍛造面向未來的可持續發展競爭力，為高質量發展築牢根基。





### 1.1. Board of Directors

The Board of Directors is the highest decision-making body for ESG and climate-related issues of the Group, and has the primary responsibility for the Group's work on ESG and climate-related issues. Based on the business operations and stakeholder demands, the Board of Directors monitors the climate-related risks and opportunities, and continuously strengthens the responsibilities of ESG and climate-related issues as follows:

- make decisions and oversight on the ESG and climate-related issues
- develop ESG and climate-related issues management mission, policy and strategy
- review ESG and climate-related goals
- approve the release of ESG Report and Climate-related Disclosures Report and disclosure of information
- identify the goals and priorities of ESG and climate-related issues for the next phase

The Board of Directors dynamically optimizes the ESG and climate governance mechanism according to the strategic development needs to ensure that related goals are always in sync with the business strategy. In 2025, the Board of Directors received and reviewed a report from the ESG Committee, covering key information such as global climate governance dynamics, compliance regulation requirements, the effectiveness of the Group's carbon management implementation, stakeholder demands, and climate management recommendations, and gave full recognition to the scientific nature of the Group's climate strategy pathway and the effectiveness of carbon management practices.

### 1.2. ESG Committee Responsibilities

The Group has established the ESG Committee under the Board, which is a specialized working body for ESG and climate-related issues. ESG Committee reports ESG and climate-related issues annually to and be monitored and reviewed regularly by the Board of Directors for its responsibilities under the Board of Directors' strategy:

- identify, assess and manage significant ESG & climate-related issues and risks to the Group's business
- determine ESG & climate-related management goals and formulate ESG & climate change strategic plan

### 1.1. 董事會

董事會是本集團ESG及氣候相關事宜的最高決策機構，對集團ESG及氣候相關事宜工作承擔主要責任。董事會基於企業自身運營和利益相關方要求，監督企業氣候相關的風險和機遇，並不斷強化以下ESG及氣候相關事宜職責：

- 決策和監管集團ESG及氣候相關事宜
- 制定ESG及氣候相關事宜的管理願景、方針及策略
- 檢討ESG及氣候變化相關目標與計劃落實
- 審批ESG報告及氣候相關披露報告的發佈和信息的披露
- 確認下階段的ESG及氣候相關事宜目標及工作重點

董事會依據戰略發展需求動態優化ESG與氣候治理機制，確保相關目標始終與業務戰略同頻共振。2025年董事會聽取了一次ESG委員會工作報告，重點涵蓋全球氣候治理動態、合規監管要點、本集團碳管理實施成效、利益相關方訴求及氣候管理建議等關鍵信息，董事會對本集團氣候戰略路徑的科學性和碳管理實踐的有效性給予充分肯定。

### 1.2. ESG委員會職責

本集團已在董事會下設立ESG委員會，作為ESG及氣候相關事宜的專門工作機構，負責根據董事會的策略方針承擔以下職責，並每年直接向董事會報告ESG及氣候相關工作執行成果，接受董事會的監督和進行定期檢討：

- 識別、評估和管理重要的ESG及氣候相關事宜及其對集團業務的風險
- 確定ESG及氣候變化管理相關目標，制定ESG及氣候變化戰略計劃



- oversee the implementation of ESG & climate change plan and work
- confirm with the Board of Directors in respect of the effectiveness of ESG & climate change risk management and internal control system
- supervise the release of ESG Report and Climate-related Disclosures Report and disclosure of information

In 2025, the ESG Committee has completed the review of the progress and performance of the Group's goals for ESG and climate-related issues during the reporting period, which is in compliance with the Group's ESG and climate-related management strategy.

### 1.3. Working Group Responsibilities

ESG Working Group is the coordinating body that composes of representatives from ESG related functional departments, responsible for the following ESG & climate-related issues:

- maintain risk management and internal control system for ESG reporting and Climate-related Disclosures reporting
- carry out ESG reporting and Climate-related Disclosures reporting, and implement ESG & climate change strategies and goals
- collect ESG & climate change data and information regularly
- prepare ESG Report and Climate-related Disclosures Report

### 1.4. Group Functional Department Responsibilities

Functional departments, as a base, steadily support the coordination of ESG & climate-related issues, and cooperate with ESG working group in implementing ESG & climate-related issues to each functional department.

### 1.5. Capacity Building

Hengan believes that strengthening climate-related capacity building will help us better respond to climate change and improve the performance of corporate sustainability. Therefore, we continuously carry out the climate information popularization and climate change response capacity building work across both decision-making and implementation levels, constantly improving the climate capacity building system.

- 監督ESG及氣候變化計劃的落實和工作的開展
- 向董事會提供有關ESG及氣候變化風險管理和內部控制系統是否有效的確認
- 督導ESG報告及氣候相關披露報告的發佈和信息的披露

2025年，ESG委員會已完成報告期內的本集團ESG及氣候相關事宜各項目標進度和工作開展情況的檢視，整體符合本集團ESG及氣候相關事宜管理策略。

### 1.3. 工作小組職責

本集團ESG工作小組作為ESG及氣候相關事宜的協調機構，由集團ESG相關職能部門代表組成，承擔以下ESG及氣候相關事宜職責：

- 維護ESG報告及氣候相關披露報告的風險管理和內部控制制度
- 推進ESG報告及氣候相關披露報告工作，落實ESG及氣候變化戰略與目標
- 定期收集ESG及氣候變化數據和信息
- 編撰ESG報告及氣候相關披露報告

### 1.4. 集團職能部門職責

本集團各職能部門為ESG及氣候相關事宜的協調提供穩固的基層支撐，配合ESG工作小組落實各職能部門ESG及氣候相關事宜工作。

### 1.5. 能力建設

恒安認為，加強氣候相關能力建設將有助於我們更好地應對氣候變化，提升企業可持續發展表現。因此，我們持續開展氣候信息普及和氣候變化應對能力建設工作，覆蓋決策層與執行層，持續完善氣候能力建設體系。



At the governance level, the Board of Directors tracks the evolution of domestic and international climate policies in real-time through the ESG Committee to ensure that strategic decisions are dynamically aligned with the global sustainability agenda. We conducted ESG and climate disclosure training for all Directors. The training covered the introduction of climate risks and opportunities, global climate disclosure requirements, and best practices in the industry, to ensure that the governance level has necessary capabilities and skills to supervise the Group's coping strategies against climate change.

At the business execution and operation level, we encourage management and employees to actively participate in the popularization and learning climate-related knowledge to understand the latest industry trends, and to enable employees to complete the cognitive upgrading from climate risk awareness to coping skills, thereby establishing a value connection between climate change and corporate resilience building. We also conducted training on ESG and climate change coping across the management of relevant departments responsible for climate change management. The training covered the latest domestic and international trends and regulatory requirements in ESG and climate change, the status-quo and achievements of Hengan's climate management, carbon inventory theory and practice, and suggestions for improving ESG and climate management. It aims to effectively enhance Hengan's climate resilience through improving the management level's climate awareness and management capabilities.

## 2. STRATEGY

With the increasingly severe climate risks in recent years and frequent occurrences of extreme climate disasters, Hengan has recognized that climate-related risks and opportunities will affect the Group's business and finance. Since the first climate-related disclosures in 2022, Hengan has regularly reviewed the identified climate-related risks and opportunities.

### 2.1. Risk and Opportunity Identification

In 2025, we reviewed the already identified climate-related risks and opportunities by taking into account the latest regulatory developments, industry trends, and the Group's operational practices. We further integrated and updated them into 6 major climate-related risks (including 2 physical risks and 4 transition risks) and 1 major climate-related opportunity, and completed their assessment and prioritization. The relevant results will continue to serve as an important basis for the formulation and implementation of the Group's climate strategy.

在治理層面，董事會通過ESG委員會實時追蹤國內外氣候政策演進脈絡，確保戰略決策與全球可持續發展議程保持動態校準。我們面向全體董事定期開展ESG及氣候信息披露培訓，內容包括氣候風險及機遇介紹、全球範圍內的氣候信息披露要求、優秀同業實踐等，確保從治理層面有充足的能力和技能監督本集團氣候變化應對策略。

業務執行和運作層面，我們鼓勵管理層和員工積極參與氣候相關的知識普及和學習工作，了解行業最新動態，推動員工完成從氣候風險認知到應對技能的認知升級，建立氣候變化與企業韌性建設的價值連接。我們亦定期針對相關部門管理層開展ESG及氣候變化應對培訓，內容涵蓋國內外ESG及氣候變化最新趨勢與監管要求、恒安管理現狀與成果、碳盤查理論與實踐、以及ESG與氣候管理提升建議等，致力於通過提升管理層的氣候意識與管理能力，有效提升恒安的氣候韌性。

## 二 · 策略

隨著近年來氣候風險日益嚴峻，極端氣候災害頻發，恒安認識到氣候相關風險及機遇會對本集團的業務與財務產生影響。恒安自2022年首次啟動氣候信息披露以來，定期就識別到的氣候相關風險及機遇進行回顧與檢討。

### 2.1. 氣候相關風險及機遇分析

2025年，我們結合最新監管動態、行業趨勢以及本集團運營實踐對已識別的氣候相關風險及機遇進行回顧，並進一步整合更新為6項氣候相關風險（含2項物理風險和4項轉型風險）與1項氣候相關機遇，並完成評估與排序，相關結果持續作為本集團氣候戰略制定與執行的重要依據。



Risk/opportunity categories 風險/機遇類別	Risk/ opportunity name 風險/ 機遇名稱	Business model and value chain impacts 業務模式和價值鏈影響	Financial impacts 財務影響	Scope of impact <sup>1</sup> 風險/機遇影響程度 <sup>1</sup>			Value chain impact <sup>2</sup> 價值鏈 影響範圍 <sup>2</sup>	Response strategy 應對策略	
				Short- term 短期	Medium- term 中期	Long- term 長期			
Transition opportunities 轉型風險	Policy and legal risk 政策和 法律	Increased pricing of GHG	The operation side needs to increase investment in energy-saving retrofits, energy transition, carbon quota purchasing and other areas due to carbon emission regulations; Upstream suppliers may increase raw material prices in scenarios where carbon emission costs rise.	Increased expenditures related to low-carbon transition lead to higher operating costs; Rising raw material prices result in higher procurement costs.	Low	Low	Medium	Upstream and internal operations	<ul style="list-style-type: none"> <li>✓ Energy-saving retrofits to enhance energy efficiency;</li> <li>✓ Increase the share of renewable energy usage;</li> <li>✓ Advance supplier diversification initiatives.</li> </ul>
	碳排放成本 上升	運營業端受碳排放監管影響，需在節能技改、能源轉型、購買碳配額等維度加大投入；上游供應商在面臨碳排放成本上升的情景下，可能會提高原材料價格。	低	低	中	上游、 自身運營	<ul style="list-style-type: none"> <li>✓ 節能技改提升能源使用效率；</li> <li>✓ 增加綠色能源使用比例；</li> <li>✓ 推動供應商多元化建設。</li> </ul>		
	Tightened policies	Increased climate and other information disclosure requirements will impose higher demands on our data and information management, staff capabilities, and related aspects; Stricter regulatory policies on products and operations may increase the probability of non-compliance events and damage corporate image; Non-compliance events involving upstream suppliers may also have a negative impact on our corporate image.	Increased expenditures from transformation investment, data system development and staff training to meet regulatory requirements will drive up operating costs; Damage to corporate image may lead to lower product sales and subsequent revenue reduction.	Low	Low	Medium	Internal operations and downstream	<ul style="list-style-type: none"> <li>✓ Establish a sound climate-related information collection and disclosure mechanism;</li> <li>✓ Identify and assess major regulatory trends and implement transition solutions;</li> <li>✓ Conduct regular assessments of supplier compliance risks.</li> </ul>	
	監管政策 收緊	氣候等信息披露要求提升將對我們的數據與信息管理、人員能力等提出更高的要求；產品及運營的監管政策趨嚴可能導致違規事件的發生概率上升，品牌形象受損；上游供應商如果出現違規事件，可能會對我們的品牌形象同樣造成負面影響。	應對監管要求的轉型投入、數據系統搭建以及人員培訓等帶來支出增加，運營成本上升；品牌形象受損可能帶來產品銷量下降，進而營收減少。	低	低	中	上游、 自身運營	<ul style="list-style-type: none"> <li>✓ 建立完善的氣候相關信息收集與披露機制；</li> <li>✓ 識別評估重大監管趨勢並落實轉型方案；</li> <li>✓ 定期評估供應商合規風險。</li> </ul>	

<sup>1</sup> Taking into account the Group's business strategy, climate-related goals and strategies, as well as climate regulatory requirements, we define the short-term, medium-term, and long-term time horizons as 1–3 years, 3–5 years, and 5–10 years, respectively. The scope of impact of risks and opportunities is quantified based on the significance of the risk or opportunity multiplied by its likelihood of occurrence, and is then categorized into low impact, medium impact, and high impact according to the risk and opportunity thresholds.

<sup>2</sup> Upstream value chain activities include raw material procurement, supplier management, and inbound logistics; internal operational activities include production management, product quality management, warehousing and outbound logistics, product research and development, and risk management; downstream value chain activities include marketing and brand management, customer service and support, and distributor management.

<sup>1</sup> 綜合考慮本集團的業務規劃、氣候相關目標與策略以及受到的氣候監管要求，我們將短期、中期、長期的時間跨度分別定義為1–3年、3–5年以及5–10年。風險及機遇的影響程度根據該風險及機遇的重要程度×發生概率進行量化，並根據風險及機遇閾值將影響程度分為低影響、中影響以及高影響。

<sup>2</sup> 價值鏈上游活動包括：原材料採購、供應商管理、內向物流；自身運營活動包括：生產管理、產品質量管理、倉儲及外向物流、產品研發、風險管理；價值鏈下游活動包括：營銷和品牌管理、客戶服務與支持、經銷商管理。



Risk/opportunity categories 風險/機遇類別	Risk/ opportunity name 風險/ 機遇名稱	Business model and value chain impacts 業務模式和價值鏈影響	Financial impacts 財務影響	Scope of impact 風險/機遇影響程度			Value chain impact 價值鏈 影響範圍	Response strategy 應對策略
				Short- term 短期	Medium- term 中期	Long- term 長期		
				Market risk 市場	Consumer's green preference	As consumers' environmental awareness increases, they are putting forward higher green and low-carbon requirements for products. We need to enhance the environmental attributes of our products to meet consumers' demands.		
	消費者偏好轉變	消費者環保意識提升，對產品提出更高的綠色、低碳要求，我們需提高產品的環保屬性以滿足消費者需求。	無法滿足消費者綠色產品需求導致產品銷量下降，營收減少；綠色低碳產品研發、生產投入增加，造成運營成本上升。	低	低	中	自身運營、下游	<ul style="list-style-type: none"> <li>✓ 研發綠色產品；</li> <li>✓ 產品全生命週期減碳；</li> <li>✓ 推動綠色供應鏈建設。</li> </ul>
	Lack of raw materials	Changes in global climate patterns may cause reduced production of key raw materials such as wood pulp; Increased frequency of extreme weather events may cause raw material transportation difficulties, further leading to raw material shortages; Raw material shortages will drive up raw material prices, and we may be forced to raise product prices.	Raw material shortages causing reduced product output and subsequent revenue reduction; Rising raw material prices leading to increased costs and reduced profits; Product price increases leading to decreased sales and reduced revenue; R&D into alternative raw materials leading to increased R&D costs.	Low	Low	Medium	All	<ul style="list-style-type: none"> <li>✓ Promote the development of supply chain diversification;</li> <li>✓ Conduct R&amp;D on raw material substitution.</li> </ul>
	原材料短缺	全球氣候模式的轉變可能造成木漿等主要原材料減產；極端天氣頻發將可能導致原材料運輸困難，進一步造成原材料短缺；原材料短缺將推動原材料價格上漲，我們可能被迫提升產品價格。	原材料短缺造成產品產量下降，帶來營收減少；原材料價格上漲導致成本上升，利潤減少；產品漲價導致銷量下降，營收減少；替代原材料研發造成研發成本上升。	低	低	中	全部	<ul style="list-style-type: none"> <li>✓ 推動供應鏈多元化建設；</li> <li>✓ 原材料替代研發。</li> </ul>



Risk/opportunity categories 風險/機遇類別	Risk/ opportunity name 風險/ 機遇名稱	Business model and value chain impacts 業務模式和價值鏈影響	Financial impacts 財務影響	Scope of impact 風險/機遇影響程度			Value chain impact 價值鏈 影響範圍	Response strategy 應對策略	
				Short- term 短期	Medium- term 中期	Long- term 長期			
Physical risks 物理風險	Acute risk 急性	Frequent extreme weather	Extreme weather events such as typhoons and floods disrupt production, storage, upstream and downstream transportation, and other processes, disturbing normal operations; Factory buildings and equipment are damaged, increasing investment in maintenance, insurance, and related areas; Extreme weather may pose risks to employees' health and safety.	Disturbance to normal operations leads to reduced product output and decreased revenue; Climate disasters lead to increased investment in maintenance and insurance, driving up operating costs.	Low	Low	Medium	Upstream and internal operations	<ul style="list-style-type: none"> <li>Assess the exposure of each factory to extreme climate disaster risks;</li> <li>Enhance the early warning mechanism for extreme weather;</li> <li>Upgrade protection facilities against extreme weather;</li> <li>Strengthen supply chain resilience.</li> </ul>
	極端天氣事件	颱風、洪水等極端天氣事件導致生產、儲存、上下游運輸等環節中斷，擾亂正常運營；廠房、設備受損，維修、保險等投入增加；極端天氣可能對員工健康安全造成風險。	正常運營受到干擾，導致產量下降，營收減少；氣候災害導致維修、保險投入增加，運營成本上升。	低	低	中	上游、自身運營	<ul style="list-style-type: none"> <li>評估各工廠極端氣候災害風險暴露情況；</li> <li>完善極端天氣預警機制；</li> <li>升級極端天氣防護設施；</li> <li>強化供應鏈韌性。</li> </ul>	
	Chronic 慢性	Water shortage and drought	Water resources are crucial to the paper industry. Water scarcity may cause reduced product output or production interruptions; Drought may cause reduced production of raw materials such as wood pulp, leading to raw material shortages or price increases.	Reduced product output due to water scarcity, leading to decreased revenue; Increases in water prices and prices of raw materials such as wood pulp leading to increased costs and reduced profits.	Low	Low	Medium	Upstream and internal operations	<ul style="list-style-type: none"> <li>Assess water stress risks for each factory and develop targeted response measures;</li> <li>Improve water resource utilization efficiency.</li> </ul>
Opportunities 機遇	Products and services 產品和服務	Develop and/or increase low-carbon products	Launching green and low-carbon products to meet consumer demands will help boost product sales; As consumers' environmental awareness gradually increases, green and low-carbon products may command a premium.	Increased product sales leading to higher revenue; Green premium on products leading to increased profits.	Low	Low	Medium	Internal operations and downstream	<ul style="list-style-type: none"> <li>Develop and gradually increase the proportion of green products;</li> <li>Promote the development of green supply chains.</li> </ul>
	開發和/或增加低碳產品	通過推出綠色、低碳產品滿足消費者的需求，將有助於提升產品銷量；隨著消費者環保意識的逐步提升，綠色低碳產品可能獲得溢價。	產品銷量增加，營收上升；產品獲得綠色溢價，利潤增加。	低	低	中	自身運營、下游	<ul style="list-style-type: none"> <li>開發並逐步擴大綠色產品佔比；</li> <li>推動綠色供應鏈建設。</li> </ul>	



## 2.2. Climate Action

Hengan has formulated a series of climate actions in response to identified climate-related risks and opportunities. From two dimensions of climate change adaptation and climate change mitigation, we reduce negative impacts on the climate while enhancing our own climate resilience.

### 2.2.1 Climate Risk Mitigation

To actively respond to the national “dual carbon” strategy and strictly comply with relevant requirements of the *Energy Conservation Law of the People’s Republic of China* (《中華人民共和國節約能源法》), the Group has formulated and implemented the *Hengan Group Energy Saving and Consumption Management Policy* (《恒安集團節能降耗管理制度》), and carries out comprehensive energy-saving and carbon reduction initiatives across the entire product lifecycle. Furthermore, through value chain collaboration and public engagement, we drive low-carbon practices to extend from the supply chain to social life, promoting the green and low-carbon development of the entire value chain.

- **Carbon Reduction in Internal Operations**

The Group actively responds to China’s “Dual Carbon” strategy and strictly complies with relevant laws and regulations, including the *Energy Conservation Law of the People’s Republic of China* (《中華人民共和國節約能源法》). We have formulated and implemented the *Hengan Group Energy Saving and Consumption Management Policy* (《恒安集團節能降耗管理制度》), and carry out comprehensive energy-saving and carbon reduction initiatives across the entire product lifecycle. Through diversified measures such as energy management optimization, development of a low-carbon logistics system, improvement of warehouse efficiency, and green product R&D, we continuously advance our own emission reduction process and deepen our low-carbon transition practices.

- **Energy Management**

The Group relies on the Energy Management System (EMS) to systematically oversee and continuously optimize energy usage. This enhances energy efficiency, controls operational costs, and reduces greenhouse gas emissions. By the end of the Reporting Period, the Group’s subsidiaries, Shandong Hengan Paper Co., Ltd., Hengan (China) Paper Industry Co., Ltd., Fujian Hengan Homecare Products Co., Ltd., and Hengan (Xiaogan) Family Products Co., Ltd., have passed ISO 50001 EMS certification. Using the PDCA (plan, do, check, action) cycle management model, the Group has refined end-to-end management from goal setting and implementation to monitoring and evaluation, ensuring the steady operation and ongoing improvement of the EMS across all units.

## 2.2. 氣候行動

恒安針對識別到的氣候相關風險及機遇制定了一系列氣候行動，從氣候變化適應和氣候變化緩解兩個維度，降低對氣候的負面影響，同時提升自身的氣候韌性。

### 2.2.1. 氣候變化緩解

本集團積極響應國家「雙碳」戰略，嚴格遵守《中華人民共和國節約能源法》等法規要求，制定並實施《恒安集團節能降耗管理制度》，圍繞產品全生命週期全面開展節能減碳工作。我們亦進一步通過價值鏈協同與公眾參與，推動低碳實踐從供應鏈延伸至社會生活，推動全價值鏈綠色低碳發展。

- **自身運營減碳**

本集團積極響應國家「雙碳」戰略，嚴格遵守《中華人民共和國節約能源法》等法規要求，制定並實施《恒安集團節能降耗管理制度》，圍繞產品全生命週期全面開展節能減碳工作。我們通過能源管理優化、低碳物流體系建設、倉儲效率提升及綠色產品研發等多元化舉措，持續推動自身減排進程，不斷深化低碳轉型實踐。

- **能源管理**

本集團依託能源管理體系(EMS)實現能源使用的系統化管控與持續優化，不斷提升能源利用效率，控制運營成本，降低溫室氣體排放。截至報告期末，本集團旗下山東恒安紙業有限公司、恒安(中國)紙業有限公司、福建恒安家庭生活用品有限公司、恒安(孝感)家庭用品有限公司均已通過ISO50001能源管理體系認證。本集團通過PDCA(計劃、執行、檢查、行動)循環管理模式，完善從目標制定、過程實施到監測評估的全流程管理，推動能源管理體系在本集團內部穩定運行、持續深化。



To continuously strengthen energy-efficiency controls, Hengan has set clear energy targets for the papermaking paper, aiming to keep energy consumption intensity below 0.40 tce/tonnes of paper by 2030. In 2025, the Group's energy consumption intensity stood at 0.34 tce/tonnes of paper, reflecting steady progress in energy-efficiency management.

As of the end of the Reporting Period, the Group operates four "National Green Factories": Hengan (Wuhu) Paper Industry Co., Ltd., Fujian Hengan Homecare Products Co., Ltd., Hengan (China) Paper Industry Co., Ltd., and Hengan (Xiaogan) Family Products Co., Ltd. These recognitions demonstrate the Group's tangible achievements in green manufacturing and sustainable development.

#### Improve Energy Efficiency

To continuously advance energy conservation, operational efficiency, and low-carbon operations, the Group has systematically implemented a series of technical improvements and management optimizations, focusing on equipment upgrades, waste-heat recovery, and automation enhancements.

為持續強化能效管控，恒安已明確造紙板塊能源管控目標，提出2030年前將造紙板塊能耗密度控制在0.40噸標煤／噸紙以下。2025年，本集團噸紙能耗密度為0.34噸標煤／噸紙，能效管理穩步推進。

截至報告期末，本集團擁有四家國家級綠色工廠，包括恒安(蕪湖)紙業有限公司、福建恒安家庭生活用品有限公司、恒安(中國)紙業有限公司、恒安(孝感)家庭用品有限公司，體現了本集團在綠色製造與可持續發展方面的紮實成果。

#### 提升能源使用效率

為持續推進節能增效與低碳運營，本集團圍繞設備節能改造、餘熱回收利用、自動化升級等方面，系統實施了一系列技術改造與管理優化。

### Hengan Energy Efficiency Management Measures

#### 恒安能效管理舉措

Equipment Energy-saving Upgrades

- **Motor and air compressor upgrades:** Phased out low-efficiency motors and promoted class-1 efficiency motors across multiple sites, while implementing energy-saving upgrades for centrifugal air compressors.
- **High-efficiency air conditioning:** Introduced magnetic-levitation air-conditioning units in diaper production workshops. Utilizing friction-free magnetic levitation technology, these units are expected to deliver significant annual electricity savings and extend equipment service life.
- **Transformer efficiency optimization:** Upgraded transformers in several plants with models designed to reduce electrical transmission losses through optimized materials and construction, thereby improving power supply stability and energy efficiency.

設備節能改造

- **電機與空壓機升級：**淘汰低效電機，在多個基地推廣一級能效電機，同步實施離心式空壓機節能改造。
- **高效空調引入：**在紙尿褲車間引入磁懸浮空調，該設備採用無摩擦磁懸浮技術，預計每年可顯著節省電費並延長設備使用壽命。
- **變壓器能效優化：**對多個廠區變壓器進行能效升級，新設備通過優化材料與結構降低電能傳輸損耗，有效提高供電穩定性與能源效率。



## Hengan Energy Efficiency Management Measures

### 恒安能效管理舉措

Waste-heat Recovery and Utilization	<ul style="list-style-type: none"><li>• <b>Tail-gas waster heat recovery:</b> Constructed tail-gas waste-heat recovery systems at papermaking bases in Jinjiang and Shandong, capturing and reusing waste heat from production exhaust to effectively lower natural gas consumption.</li><li>• <b>Process waster heat utilization:</b> At the Chongqing base, deployed a refrigeration system driven by hood exhaust and condensate, enabling the circular use of waste heat from production processes.</li></ul>
餘熱回收利用	<ul style="list-style-type: none"><li>• <b>尾氣餘熱回收：</b>在晉江、山東等造紙基地建設尾氣餘熱回收系統，將生產過程中產生的廢氣餘熱進行回收利用，有效降低天然氣消耗。</li><li>• <b>工藝餘熱利用：</b>在重慶基地設計以氣罩排氣和凝水為驅動熱源的製冷系統，實現生產過程中餘熱的循環利用。</li></ul>
Automation Upgrades	<ul style="list-style-type: none"><li>• <b>Production line automation:</b> Integrated automated packaging and warehousing systems, including automatic cartooning machines, label applicators, and smart vertical warehouses, into new wet-wipe and diaper production lines, substantially boosting production efficiency and operational stability.</li><li>• <b>Intelligent equipment control:</b> Enhanced precise scheduling and control of energy-consuming equipment through timed switches and optimized control systems, enabling continuous energy savings and rapid response to operational anomalies.</li></ul>
自動化升級	<ul style="list-style-type: none"><li>• <b>產線自動化：</b>在濕巾、紙尿褲新產線引入自動化包裝與倉儲系統，包括自動裝箱機、貼標機及智能立庫，顯著提高生產效率和運行穩定性。</li><li>• <b>設備智能控制：</b>通過增設時控開關與優化控制系統，對能耗設備進行精細化調度與管理，實現運行過程的持續節能與異常快速響應。</li></ul>



## Motor Energy-Efficiency Retrofit Initiative

### 電機節能改造項目

In alignment with national energy-efficiency policies and to advance the low-carbon industrial transition, we have systematically implemented a motor retrofit program targeting outdated, inefficient models such as the Y-series motors installed on certain legacy paper machines. We have upgraded conventional asynchronous motors to high-efficiency YE4/YE5 series units that comply with the latest national standards, and replaced critical equipment including hydropulpers and fans, with permanent-magnet direct-drive motors that meet Class-1 energy-efficiency requirements. This has enabled the full phase-out of high-energy-consumption equipment that fails to meet current efficiency benchmarks.

為響應國家能效升級政策並推動工業低碳轉型，本集團針對部分早期紙機使用的Y系列等低效電機，系統開展了電機節能改造項目。我們將普通異步電機升級為新國標YE4/YE5系列高效電機，並將部分關鍵設備（如水力碎漿機、風機）改為永磁直驅一級能效電機，全面淘汰不符合現行能效標準的高耗能設備。

By the end of the Reporting Period, motor retrofits on paper machines at the Hunan, Hengan China Paper and Chongqing bases have been progressively completed. Post-retrofit electricity savings average between 3% and 52%, with estimated annual electricity cost savings per base ranging from RMB200,000 to RMB800,000. The investment payback period is approximately 1.5 to 2.5 years. Once the overall program is fully implemented, the energy efficiency of the Group's motor systems will be comprehensively improved, further reducing production energy consumption and carbon emissions, and supporting our green and sustainable development journey.

截至報告期末，湖南、中紙、重慶基地相關紙機電機改造已陸續實施，改造後平均節電率在3%至52%之間，預計各基地年度可節約電費20萬至80萬元不等，投資回收期約為1.5至2.5年。未來整體改造完成後，本集團電機系統能效將整體提升，進一步降低生產能耗與碳排放，支撐企業綠色可持續發展。

## Waste Heat Recovery Project

### 餘熱回收項目

In 2025, Hengan (China) Paper Co., Ltd. successfully commissioned a project to recycle waste heat from paper machine exhaust gases, achieving significant energy savings, reduced consumption, and carbon emission reductions. By recovering waste heat from the production process, the project effectively replaced natural gas consumption. Operational data indicates that the project is expected to save 1.629 million cubic meters of natural gas annually, generate approximately RMB6.09 million in economic benefits, and save over 2,100 tons of standard coal, equivalent to reducing carbon dioxide emissions by over 3,500 tons. Currently, this proven energy-saving technology has been rolled out to multiple production bases in Shandong, Chongqing, and Wuhu, among others. Related projects are currently under construction or in the planning stage, and will continue to expand the comprehensive benefits of energy conservation and emissions reduction.

2025年，恒安（中國）紙業有限公司成功投運造紙機尾氣餘熱循環利用項目，實現了顯著的節能降耗與碳減排成效。該項目通過回收生產過程中的尾氣餘熱，有效替代了天然氣消耗。運營數據顯示，項目預計未來每年可節約天然氣162.9萬方，創造經濟效益約人民幣609萬元，並節約標準煤超2,100噸，相當於減少二氧化碳排放超3,500噸。目前，此項成熟節能技術已推廣至山東、重慶及蕪湖等多個生產基地，相關項目正處於建設或規劃階段，將持續擴大節能減排的綜合效益。



### Advancing Renewable Energy Adoption

The Group regards renewable energy use as one of the strategic approaches to advancing low-carbon transformation. Through the continuous expansion of distributed photovoltaic installations and the active procurement of green electricity, we steadily improve our energy structure and reduce carbon emissions. Supported by the new energy management platform, we achieve real-time monitoring and refined operation and maintenance of photovoltaic power stations, while progressively increasing the share of green power in our total electricity consumption, thereby laying a robust foundation for a comprehensive shift toward green energy.

In terms of distributed photovoltaic deployment, we continue to widen our project footprint, advancing the installation and operation of photovoltaic systems across multiple production sites nationwide. By leveraging the new energy management platform, we achieve real-time tracking of key indicators such as power output and generation volume at each PV station, and conduct monthly comparative analyses of generation performance to continuously optimize operational efficiency. As of the end of the Reporting Period, Hengan has implemented photovoltaic power generation projects in 13 production companies, with an installed capacity of 52.7 MW. In 2025, the total electricity generated exceeded 57 million kWh, increased by 84% compared to 2024, equivalent to reducing more than 30,000 tCO<sub>2</sub>e.

Regarding green electricity procurement, in 2025, the Group sourced a total of 35,892 MWh of green electricity through subsidiaries of Hunan Hengan Paper Co., Ltd., Hengan (China) Paper Co., Ltd., and Hengan (Hubei) Paper Co., Ltd. This is equivalent to a reduction in carbon dioxide emissions by approximately 19,000 tonnes, actively advancing the transition toward a cleaner energy mix. Looking ahead to 2026, the Group plans to further increase the share of green electricity procurement, steadily expanding the use of clean energy to support energy-saving, emission-reduction, and sustainable development objectives.

#### **> Low-carbon Logistics**

In line with our low-carbon transition objectives, the Group continues to build a green logistics system. Through digitalized operations, transport network optimization, and upgrades to low-emission transport capacity, we systematically reduce energy consumption and carbon emissions across logistics, enhancing the environmental performance of our supply chain.

### 推動可再生能源利用

本集團將可再生能源應用作為低碳轉型的核心戰略之一，通過持續擴大分佈式光伏佈局與積極採購綠色電力，不斷優化能源結構、降低碳排放。依託新能源管理平台，本集團實現了對光伏電站運行數據的實時監控與精細化運維管理，同時穩步提升綠電採購比例，為全面推進綠色能源轉型奠定堅實基礎。

在分佈式光伏建設方面，本集團持續擴大項目覆蓋範圍，在全國多個生產基地有序推進光伏發電系統的建設和應用。通過部署新能源管理平台，我們實現了對各地光伏電站運行功率、發電量等關鍵指標的實時監控，並定期開展月度發電量對比分析，不斷優化運維管理效率。截至本報告期末，恒安已在13家生產公司實施光伏發電，總裝機容量達52.7 MW，全年發電量超5,700萬度，同比增長84%，助力減少超過3萬噸二氧化碳排放。

在綠色電力採購方面，本集團於2025年已在湖南、中紙、湖北等子公司累計採購綠電35,892兆瓦時，相當於減少二氧化碳排放約1.9萬噸，積極推動能源結構清潔化轉型。展望2026年，本集團計劃進一步提升綠電採購比例，持續擴大清潔能源的使用規模，助力落實節能減排與可持續發展目標。

#### **> 低碳物流**

本集團圍繞低碳轉型目標，持續推進綠色物流體系建設，通過數字化運營、運輸網絡優化、綠色運力升級，系統性降低物流環節能源消耗與碳排放，提升供應鏈綠色運營水平。



### Digitalized Operations

The Group has fully adopted electronic delivery receipts and release notes via the Transportation Management System (TMS), cutting annual paper document usage by about 650,000 sheets and essentially realizing paperless end-to-end document flow. The system monitors real-time transport data across all stages, dynamically optimizes vehicle scheduling and route planning, and improves transport efficiency and resource utilization. Additionally, the share of direct delivery business has been integrated into the performance evaluation framework, enabling data-driven continuous optimization of our operational structure to support the effective delivery of green operation goals.

### Transport Network Optimization

We have restructured warehouse layouts, optimized distribution networks, set appropriate safety stock levels, and reduced replenishment frequency to lower total transport distance and trips from the source. We have also significantly increased the proportion of direct delivery operations, moving products directly from production warehouses to end customers, which cuts intermediate warehousing and handling steps and further reduces logistics-related energy use. In transport mode selection, we actively promote low-carbon alternatives such as sea and rail freight to partially replace conventional road transport, achieving scaled carbon reductions through their lower emission intensities.

In 2025, combined sea and rail freight volumes surpassed 660,000m<sup>3</sup>, avoiding more than 170,000 tonnes of CO<sub>2</sub> emissions compared to road transport. In addition, the Group actively promotes the Regional Distribution Center (RDC) direct delivery model, which minimizes intermediate handling and warehousing, thereby building a lean and efficient low-carbon distribution network.

### 數字化運營

本集團通過TMS全面推行電子回單與電子放行條，全年累計減少紙質單據使用約65萬張，基本實現了單據流轉全流程無紙化。系統實時監控運輸各環節數據，動態優化車輛調度與路徑規劃，有效提升了運輸效率與資源利用率。此外，我們已將直運業務佔比納入績效考核體系，以數據驅動業務結構持續優化，助力綠色運營目標紮實落地。

### 運輸網絡優化

我們通過重構倉網布局、優化配送網絡、合理設置安全庫存、降低補貨頻次等方式，從源頭減少運輸公里數與運輸頻次。同時大力提升直運業務比例，推動產品從生產倉庫直達終端客戶，減少中間倉儲與中轉環節，進一步降低物流能耗。在運輸方式上，我們積極推進海運、鐵運等低碳運輸模式，替代部分傳統公路運輸，依託更低的排放強度實現規模化碳減排。

2025年，海運與鐵運累計發貨量合計超過66萬立方米，相較公路運輸減少溫室氣體排放超17萬噸。同時，本集團大力推廣區域性配送中心(RDC)倉直運模式，減少貨物中轉與倉儲環節，有效構建起集約高效的低碳配送網絡。



## RDC Direct Delivery Model

### 區域性配送中心直運模式

To enhance logistics efficiency and reduce operational costs, the Group has steadily expanded the use of the RDC direct delivery model. By cutting intermediate handling and shortening warehouse dwell time, the model ensures on-time delivery while effectively lowering the risk of goods damage during transport. It not only shortens shipping routes and avoids duplicate shipments, but also significantly reduces warehousing expenses and inventory carrying costs. In 2025, total annual RDC direct delivery volume reached 1,697,300 m<sup>3</sup>, representing a year-on-year increase of 37.7% and covering 13 production bases. The initiative is estimated to have saved 981,600 kilometers in logistics distance, equivalent to a reduction of about 242 tonnes of CO<sub>2</sub> emissions. This approach not only improves customer satisfaction but also delivers dual benefits in supply chain efficiency and cost control.

為提升物流效率並降低運營成本，本集團持續擴大RDC直運模式的應用範圍，通過減少中轉環節和倉儲停留時間，在保障配送時效的同時，有效降低運輸過程中的貨損風險。該模式不僅縮短了運輸路徑、減少了重複運輸，還顯著降低了倉儲成本和庫存資金佔用。2025年，全年累計實現RDC倉直運發貨量169.73萬立方米，同比增長37.7%，覆蓋13個生產基地，預計節約物流里程98.16萬公里，相當於減少二氧化碳排放約242噸，在提升客戶滿意度的同時，實現了供應鏈效率與成本管控的雙重優化。

### Green Transport Capacity Upgrade

We continue to advance the transition to cleaner transport vehicles and on-site equipment. As of the end of the Reporting Period, the number of new energy urban delivery vehicles has grown to 3,296, representing 10.13% of the total urban delivery fleet. The proportion of electric forklifts has risen to 100%, substantially lowering carbon emissions from on-site operations. By analyzing charging infrastructure distribution and operational data, we continuously optimize the scheduling and routing of new energy vehicles, enhancing their utilization efficiency and expanding their coverage. This provides a solid foundation for long-term emission reductions in our logistics operations.

#### > Efficient Storage

Hengan continuously advances warehouse management in a digitalized, smart and green way. Through multi-dimensional initiatives, we improve operational efficiency while reducing energy consumption and resource use, building a modern warehousing system that is both efficient and low-carbon. As of the end of the Reporting Period, the Group has deployed automated three-dimensional warehouses at eight bases, including Jinjiang, Shandong, and Shangyu, with a total of 313,000 thousand stacks.

### 綠色運力升級

我們持續推進運輸車輛與場內裝備的清潔化替代。截至本報告期末，新能源城配車輛已增至3,296台，佔城市配送車輛總數10.13%；電動叉車佔比提升至100%，大幅降低場內作業碳排放。我們亦結合充電設施分佈與運營數據分析，不斷優化新能源車輛調度與線路安排，提升清潔能源車輛的使用效率與覆蓋廣度，為物流環節的長期減排提供堅實支撐。

#### > 高效倉儲

恒安持續推進倉儲管理數字化、智能化與綠色化升級，通過多維度舉措提升運營效率、降低能耗與資源消耗，構建高效低碳的現代化倉儲體系。截至本報告期末，本集團已在晉江、山東、上虞等八大基地建成自動化立體倉庫，合計擁有31.3萬個托盤位。



In terms of smart warehousing upgrades, the Group systematically progresses toward equipment automation and operational greening. By deploying vertical and horizontal delivery systems, we enhance goods-handling efficiency. Automatic sorting equipment has been installed at four e-commerce bases in Shandong and Hunan, boosting operational efficiency by 17.5%. On the operational management front, the Group has established a national warehouse monitoring center, which conducts an average of 64 audits and corrective actions monthly, and has fully replaced paper-based records with a digital inspection system.

The Group's automated guided vehicle (AGV)-based unmanned sorting system has completed pilot deployment at the Jinan warehouse and is expected to commence formal operations in 2026, further advancing the shift toward intelligent warehousing operations.

### ➤ Green Products

The Group consistently integrates sustainability into every stage of product innovation, guided by principles of green, low-carbon, and ecological harmony. We adhere to safety, health, and environmental standards in product development, actively promote the use of eco-friendly materials, and apply lean R&D management practices. We systematically conduct lifecycle impact assessments and risk evaluations for our products, establish comprehensive environmental control mechanisms and management plans, and continuously reduce environmental burdens across the entire value chain, driving coordinated progress between industry and ecology.

### Green Raw Materials

In 2025, three wet toilet paper series from Fujian Hengan Homecare Products Co., Ltd. and Hengan (Xiaogan) Family Products Co., Ltd. obtained flushable and biodegradable certification. Additionally, 11 sanitary napkin products made from long-staple cotton by Fujian Hengan Homecare Products Co., Ltd. completed origin-traceability certification.

We also collaborated with the China National Pulp and Paper Research Institute to advance the large-scale application of bamboo pulp in products such as soft-tissue paper, napkins, and adult diapers. Bamboo pulp has reached a stage where it can substitute traditional wood pulp in terms of performance and cost. In 2025, the proportion of bamboo pulp used in relevant products continued to rise, supporting forest conservation and the circular economy. Furthermore, because bamboo has a short growth cycle and strong carbon sequestration capacity, this further enhances the product's low-carbon benefits.

在智能倉儲升級方面，本集團系統推進裝備自動化與運營綠色化轉型，通過部署垂直與平移輸送系統提升貨物流轉效率，並在山東、湖南等四大電商基地投用自動分揀設備，實現作業效率提升17.5%。在運營管理方面，本集團建成全國倉儲監控中心，月均完成64項問題稽核與整改，並全面推行數字化巡檢系統替代紙質記錄。

本集團自動導引運輸車(AGV)無人化分揀系統已在濟南倉完成試點部署，預計2026年正式投入運營，將進一步推動倉儲作業向智能化方向轉型升級。

### ➤ 綠色產品

本集團始終將可持續發展理念深度融入產品創新全流程，以綠色低碳、生態和諧為導向，引領產品研發與技術創新。我們堅持安全、健康、環保的產品開發原則，積極推進綠色原材料應用與精益化研發管理，系統開展產品全生命週期環境影響識別與風險評估，建立完善的環境管控機制與治理方案，持續降低全鏈條環境負荷，推動產業與生態協同發展。

### 綠色原料

2025年，福建恒安家庭生活用品有限公司與恒安(孝感)家庭用品有限公司共有3個濕廁紙系列產品成功通過可衝散可降解認證；同時，福建恒安家庭生活用品有限公司11款採用長絨棉材質的衛生巾產品也已完成產地溯源認證。

同時，我們與中國製漿造紙研究院開展技術合作，推動竹漿在軟抽紙、餐巾紙及成人紙尿褲等產品中的規模化應用。竹漿在性能與成本方面已具備替代傳統木漿的條件，2025年相關產品中竹漿應用比例持續提升，支持森林資源保護與循環經濟發展，也因竹材生長週期短、碳匯能力強，進一步提升了產品的低碳效益。



### Lean Production

In manufacturing, the Group consistently applies lean production practices to improve resource efficiency. Through systematic lean-design initiatives, we reduce material usage and enhance production energy efficiency while maintaining product quality and performance, effectively lowering the carbon footprint per unit of output. In 2025, we achieved multiple carbon-reduction results in areas such as product lightweighting, raw materials reduction, and energy efficiency gains, as demonstrated in the following cases:

- For the Anerle liquid sanitary napkins, core material and technology optimization reduced the absorption core weight from 390 gsm to 250 gsm, representing a 36% decrease, while improving the product's leakage resistance by 50%.
- Material improvements in adult diapers lowered the backing-film weight from 17g to 14g and the non-woven backing weight from 15g to 14g, projected to cut annual PE consumption by 34 tonnes and non-woven fabric use by 25 tonnes.
- Core structure innovation in the Anerle ultra-thin dry baby diapers reduced wood-pulp usage per piece from 13.1g to 2.8g. The adoption of hot air non-woven fabric raw material increased line speed from 300 to 400 pieces per minute, lowering energy consumption per unit.
- Material optimization in the Q-MO pull-up diaper pants improved product softness while reducing raw material consumption.
- The ultra-thin pads launched in 2025 uses 45% less fluff pulp per piece compared to conventional products, delivering a lower carbon footprint for the new offering.

### Product Carbon Footprints

In recent years, China's policies for carbon footprint have been gradually improved, offering clearer guidance for corporate low-carbon development. For instance, the *Action Plan for Carbon Dioxide Peaking Before 2030* (《2030年前碳達峰行動方案》) proposes exploring and establishing a full-lifecycle carbon footprint standard for key products. Meanwhile, the *Action Plan for Further Strengthening the Construction of Carbon Peak and Carbon Neutrality Standards Measurement System (2024-2025)* (《關於進一步強化碳達峰碳中和標準計量體系建設行動方案(2024-2025年)》) places greater emphasis on product carbon footprints and carbon labeling, providing a unified accounting and management framework for enterprises.

### 精益生產

在製造環節，本集團堅持以精益生產實踐持續提升資源利用效率，通過系統性推進精益研發項目，在保障產品質量與性能的前提下，實現材料減量化與生產能效提升，有效降低單位產品碳排放。2025年，我們在產品輕量化、原料減量、能效提升等方面取得多項減碳實效，典型案例如下：

- 安爾樂液體衛生巾通過芯體材料與技術優化，吸收芯體克重由390gsm降至250gsm，降幅36%，產品返滲性能提升50%。
- 成人紙尿褲通過材料優化，底膜克重由17g降至14g，底膜無紡布克重由15g降至14g，預計年分別減少PE耗用34噸、無紡布耗用25噸。
- 安兒樂乾爽超薄嬰兒紙尿褲通過芯體結構革新，單片木漿用量由13.1g降至2.8g；熱風腰圍無紡布應用使生產線速度由300片/分鐘提升至400片/分鐘，降低單位產品能耗。
- 奇莫系列彈力褲通過材料優化，在提升產品柔軟度的同時減少原料耗用。
- 2025年推出的輕薄型護理墊，單片絨毛漿使用量較傳統產品減少45%，實現新產品碳足跡優化。

### 產品碳足跡排放

近年來，國內碳足跡相關政策持續完善，明確了企業低碳發展方向。例如，《2030年前碳達峰行動方案》提出探索建立重點產品全生命週期碳足跡標準，而《關於進一步強化碳達峰碳中和標準計量體系建設行動方案(2024-2025年)》則進一步聚焦產品碳足跡與碳標識，為企業提供了統一的核算與管理遵循。



Against this backdrop, Hengan has deeply integrated green and low-carbon principles into the development strategy. Through measures such as sustainable procurement and green operations, we drive emission reductions across our activities and have launched product carbon footprint assessments. These calculations aim to clarify the carbon emission baseline across a product's entire life cycle from raw materials to transport, and to accurately identify key areas for emission reduction. The Group plans to start with selected priority products to systematically analyze the basis for carbon reduction, thereby defining emission reduction targets across the value chain, optimizing strategies, and implementing concrete actions that lead the industry in green development.

- *Promoting Value Chain Carbon Reduction*

Hengan advances low-carbon practices from the supply chain into broader society through value chain collaboration and public engagement. We have built a transparent and traceable green supply network and transformed environmental principles into tangible and participatory actions, fostering a sustainable future together with our industry and communities.

- *Sustainable Procurement*

Since 2023, the Group has been continuously conducting the measurement of Scope 3 greenhouse gas emissions to fully understand and evaluate the carbon emissions across the product lifecycle. This provides a robust data foundation for implementing refined carbon management strategies. Internally, we reduce raw material consumption and waste at source through continuous product improvement and process optimization, thereby lowering emissions from production. Along the supply chain, we systematically gather data on supplier emissions, reduction plans, and implementation measures by reviewing their sustainability reports, ESG reports, carbon inventories, and product carbon footprint reports, as well as through targeted surveys. We also incorporate carbon management metrics into our supplier selection and evaluation framework, encouraging proactive emission reduction initiatives and building a green and low-carbon supply chain.

在此背景下，恒安將綠色低碳深度融入發展戰略，通過可持續採購、綠色運營等措施全方位推動減排，並啟動了產品碳足跡測算工作。開展此項測算，旨在摸清產品從原材料到運輸的全生命週期碳排放底數，精準識別減排關鍵環節。本集團計劃以重點產品為切入點，系統分析減碳基礎，從而錨定全價值鏈減排目標、優化策略並推動具體行動落地，引領行業綠色發展。

- *推動價值鏈減碳*

恒安通過價值鏈協同與公眾參與，推動低碳實踐從供應鏈延伸至社會生活，既構建了透明可追溯的綠色供應網絡，也將環保理念轉化為公眾可感知、可參與的行動，引領行業與社會共建可持續未來。

- *可持續採購*

自2023年起，本集團持續開展範圍三溫室氣體排放核算工作，全面了解和評估產品生命週期碳排放情況，為落地精細化碳管理策略築牢數據基礎。在內部，我們通過產品精益改善與生產工藝持續優化，從源頭減少原材料消耗與浪費，降低生產端碳排放；在供應鏈端，通過收集供應商可持續發展報告、ESG報告、碳盤查及產品碳足跡報告，或定向發放調研問卷等形式，系統收集其碳排放數據、減碳規劃及落地舉措，同時將碳排放管理指標納入供應商篩選與評估體系，以正向引導推動供應商主動開展減排行動，全力構建綠色低碳供應鏈體系。



## Value Chain Carbon Reduction: Outstanding Supplier Case — UPM Pulp

### 價值鏈減碳優秀供應商案例 — UPM 紙漿

In advancing carbon reduction across the full value chain, Hengan views UPM Pulp as a benchmark partner for green collaboration. UPM Pulp's science-based carbon footprint management and steadfast decarbonization efforts strongly support the low-carbon transition of Hengan's supply chain of tissue and personal care products. UPM Pulp provides comprehensive carbon footprint coverage for all its product categories. By following ISO international standards and the GHG Protocol, it delivers accurate carbon emission data certified by an independent third party, offering essential support for carbon accounting and target setting throughout the entire lifecycle of Hengan's products.

恒安在推動價值鏈全鏈路減碳進程中，將UPM紙漿作為綠色協同的標桿夥伴，其科學的碳足跡管理與堅定的減排行動，有力支持了恒安生活用紙及個人護理用品產業鏈的低碳轉型。UPM紙漿已實現全品類產品的碳足跡覆蓋，依據ISO國際標準與溫室氣體核算體系，提供經獨立第三方認證的精準碳排放數據，為恒安產品全生命週期碳核算與目標制定提供了關鍵支撐。

In emission reduction practice, UPM launched its “-30 by 30” Scope 3 reduction initiative, which aims to cut emissions from logistics and raw material procurement by 30% by 2030. By the end of the Reporting Period, roughly 1/3 of this target had been achieved. Through optimizing transport routes, advancing fuel transition, and working with carriers to adopt low-carbon technologies, UPM systematically tracks and reports the carbon footprint of every shipment. This effectively reduces emissions from pulp mills to Hengan's production bases, creating a collaborative “supplier reduces emissions — buyer benefits” model.

在減排實踐中，UPM啟動的「-30 by 30」範圍三減排計劃，旨在2030年前將物流與原材料採購碳排放減少30%，截至本報告期末已完成約三分之一目標。通過優化運輸路徑、推進燃料轉型、協同承運商應用低碳技術，UPM系統追蹤並反饋每批次貨物的碳足跡，有效降低了從漿廠到恒安生產基地的運輸排放，形成了「供應商減排 — 採購方受益」的協同減碳模式。

Moreover, UPM Pulp maintains internationally certified sustainable forest management systems, such as Forest Stewardship Council (FSC) certification, which closely aligns with Hengan's *Zero Deforestation Commitment* (《零毀林承諾》) and green procurement standards. In 2025, Hengan conducted a traceability visit to Finland, further deepening cooperation with UPM on sustainable raw material sourcing, circular production, and low-carbon design. This provides upstream support for Hengan's product lightweighting and carbon reduction efforts. With its end-to-end green practices, UPM Pulp serves as a key partner in building Hengan's transparent, reliable, and low-carbon cross-border supply chain, demonstrating a feasible pathway for upstream and downstream collaboration toward China's “Dual Carbon” goals.

此外，UPM擁有森林管理委員會(Forest Stewardship Council, FSC)等國際認證的可持續森林管理體系，與恒安《零毀林承諾》及綠色採購標準高度契合。2025年恒安赴芬蘭溯源考察，進一步深化了雙方在可持續原料供應、循環生產與低碳設計方面的合作，為恒安產品材料輕量化與碳減排提供了上游支持。UPM紙漿以全鏈條的綠色實踐，成為恒安構建透明、可靠、低碳跨境供應鏈的關鍵力量，展現了產業鏈上下游協同推進「雙碳」目標的可行路徑。

#### > Green Publicity

While advancing internal low-carbon operations, Hengan not only embeds environmental principles at the core of internal development, but also actively assumes the social responsibility of guiding the public toward sustainable living. Through initiatives such as promoting green products and conducting consumer education, we communicate low-carbon values to consumers, extending green actions from the Company into every household.

#### > 綠色宣傳

在推動企業低碳運營的過程中，恒安不僅將環保理念內化為自身發展的核心基因，更主動承擔起引領公眾參與綠色生活的社會責任，通過推廣綠色產品、開展消費者教育等多種形式，向消費者傳遞低碳理念，使綠色行動從企業延伸至每一個家庭。



## “From Nature, for Nature” Tenth Charitable Tree Planting Activity by Hearttex

心相印「源於自然向野而生」第十屆公益植樹節

Hengan’s Hearttex brand has developed the “from nature, for nature” charitable tree planting activity into a long-term platform that combines public participation with environmental education. By 2025, the event had been successfully held for ten consecutive editions, mobilizing thousands of families to take part in tree planting and turning the concept of a “green forest” from a slogan into tangible and collective action. The program creatively integrates elements such as pop-up installations in commercial areas and interactive games, enhancing public engagement while effectively conveying the brand’s commitment to coexisting with nature. This serves both as a deep-reaching practice in consumer environmental education and as a demonstration of the Company’s long-term commitment to fostering green lifestyles through sustained action.

恒安集團旗下心相印品牌將「源於自然向野而生」公益植樹活動，打造為一個集公眾參與和環保教育於一體的長期平台。該活動至2025年已成功舉辦至第十屆，累計帶動數千個家庭親身參與植樹，將「綠色環保植樹林」的理念從口號轉化為可感知、可踐行的集體行動。活動巧妙融合商圈快閃、遊戲互動等趣味形式，在提升公眾參與感的同時，也有效傳遞了品牌與自然共生的價值觀。這既是一次深入人心的消費者環保教育實踐，也彰顯了企業通過持續行動引領綠色生活方式的長期承諾。



Furthermore, Hengan continues to communicate environmental values by promoting green products and educating consumers. The Group actively markets eco-friendly offerings such as Bamboo  $\pi$  unbleached tissue paper, highlighting the strong carbon sequestration capacity of bamboo during its growth and helping the public recognize how everyday consumption choices can contribute to climate change mitigation. To further promote environmental awareness, Hengan has entered a strategic partnership with the Research Center for Qinling Giant Panda, undertaking lifetime sponsorship of a pair of giant pandas named “Heng Heng” and “An An”. Through integrated online and offline campaigns, the Group weaves together narratives around green ecological value of bamboo and panda conservation, closely linking the environmental attributes of its products with biodiversity protection. These efforts aim to inspire public empathy and engagement on environmental issues, jointly advancing the realization of a sustainable future.

此外，恒安還通過推廣綠色產品與開展消費者教育持續傳遞環保價值。本集團大力推廣竹 $\pi$ 本色紙等綠色產品，積極向消費者普及竹材在生長過程中所具備的顯著固碳能力，引導公眾認識到日常消費選擇對減緩氣候變化的重要作用。為進一步傳播環保理念，恒安與中國秦嶺大熊貓繁育研究中心達成戰略合作，終身認養一對大熊貓「恒恒」與「安安」。通過線上線下聯動的宣傳活動，本集團以竹子的綠色生態價值與大熊貓保護作為敘事主線，將產品的綠色屬性與生物多樣性保護緊密結合，喚起公眾對環境議題的情感共鳴與行動參與，共同推動可持續未來的實現。



### 2.2.2. Climate Change Adaptation

Hengan has formulated business continuity plans and leveraged intelligent technologies to build a flexible production and supply system to adapt to the impacts of extreme weather.

### 2.2.2. 氣候變化適應

恒安通過制定業務連續性計劃，並借助智能化手段，打造柔性生產供應系統，以適應極端天氣帶來的影響。

<b>Improve Emergency Response Plans</b> 完善應急預案	Based on the physical risk assessment results of each factory, formulate emergency response plans for extreme weather such as high temperatures, typhoons, and floods, clarify emergency response procedures and responsibility divisions, and ensure timely and effective responses when extreme weather disasters occur.  根據各工廠物理風險評估結果，制定高溫、颱風、洪水等極端天氣的應急預案，明確應急響應流程和責任分工，確保在發生極端天氣災害時能夠及時有效地應對。
<b>Upgrade Facility Protection</b> 設施防護升級	Carry out wind and water resistance retrofits on production workshops and storage facilities, and improve flood and wind prevention hardware configurations.  對生產廠房、倉儲設施進行抗風、防水改造，完善防汛、防風硬件配置。
<b>Strengthen Supply Chain Resilience</b> 供應鏈韌性強化	Optimize logistics transportation routes, develop a Transportation Management System (TMS), and achieve closed-loop digital management of logistics operations.  優化物流運輸路線，開發物流運輸管理系統(TMS)，實現物流數字化閉環管理。

### 2.3. Climate Resilience

#### 2.3.1. Scenario Analysis

We recognize that climate-related risks and opportunities may have varied impacts on the Group's business, both now and in the future. Despite the increasingly severe climate-related disasters in recent years, we acknowledge that climate change is a long-term process, influenced by a variety of factors including government policies, international trends, societal awareness, and geographical locations, and thus is subject to significant uncertainties. We continue to apply the low emission and high emission climate scenarios and the corresponding analytical framework adopted in the prior year. Taking into account the publicly available data from international mainstream climate models, we have comprehensively assessed the impact of climate change on the Group in the short, medium, and long term through climate scenario analysis.

### 2.3. 氣候韌性

#### 2.3.1. 情景分析

我們認識到，氣候相關風險及機遇在當前及未來均可能對本集團的業務產生不同程度的影響。儘管近年來氣候相關災害日益嚴峻，考慮到氣候變化是一個漫長的過程，受到政府政策、國際趨勢、社會意識、地理位置等多種因素的影響，具有重大的不確定性。我們繼續沿用上一年度的低排放與高排放兩類氣候情景及相關分析框架，結合國際主流氣候模型的公開數據，通過氣候情景分析的方式全面地評估氣候變化在短、中、長期對本集團的影響。

Scenario Name 情景名稱	Low emission scenario 低排放情景	High emission scenario 高排放情景
Scenario Definition 情景定義	Take ambitious climate action to limit global warming to 1.5°C or far below 2°C by the end of this century 採取具有雄心的氣候行動，將本世紀末全球變暖限制在1.5°C或遠低於2°C	Climate action fails, global average temperature rise exceeds 4°C by the end of this century 氣候行動失敗，到本世紀末全球平均氣溫上升超過4°C



Scenario Name 情景名稱	Low emission scenario 低排放情景	High emission scenario 高排放情景
Scenario Description  情景描述	<p>With the global consensus on addressing climate change, countries around the world have successively adopted ambitious climate actions, such as setting emission reduction targets, implementing strict climate policies, and imposing carbon taxes. Enterprises actively respond to climate policies, reducing carbon emissions. Consumers actively choose green and low-carbon products, further promoting the green transition of enterprises. Against this backdrop, multiple countries and regions aim to achieve net zero emissions by 2050. We have chosen this scenario to assess the impact on us of strict climate strategies and actions developed to achieve temperature control target of 1.5°C or far below 2°C as set out in the <i>Paris Agreement</i> (《巴黎協定》).</p> <p>隨著全球就應對氣候變化達成共識，世界各國相繼採取具有雄心的氣候行動，如制定減排目標、推行嚴格的氣候政策、徵收碳稅等；企業積極響應氣候政策，降低碳排放；消費者主動選擇綠色低碳的商品，進一步推動了企業的綠色轉型。在此背景下，多個國家及地區在2050年前實現淨零排放。我們選擇此情景以評估實現《巴黎協定》1.5°C或遠低於2°C控溫目標而推出的嚴格氣候策略與行動對我們的影響。</p>	<p>There is still no global consensus on the severity of climate change, leading to stagnation or poor implementation of many existing climate policies and actions. Fossil fuels still dominate, and greenhouse gas emissions are rising sharply, accelerating the deterioration of climate change. As climate change intensifies, physical risks are also significantly increasing. The global average temperature is rising substantially, and extreme weather events are becoming more frequent and severe. We have chosen this scenario to assess the impact on us of a significant increase in climate-related physical risks due to the lack of effective climate actions.</p> <p>全球範圍內對於氣候變化嚴峻程度的認知尚未達成一致，導致現行的諸多氣候政策與行動面臨停滯或執行不力的困境。化石能源依舊佔據主導地位，溫室氣體排放量呈現出急劇增長的態勢，加速了氣候變化的惡化進程。隨著氣候變化的加劇，物理風險也在顯著攀升。全球平均氣溫出現大幅度上升，極端天氣事件發生頻繁，且惡劣程度也在不斷加深。我們選擇此情景以評估缺乏有效的氣候行動導致氣候相關物理風險大幅上升對我們的影響。</p>
Reference Data Source  參考數據來源	<ul style="list-style-type: none"> <li>• PCC SSP 1–2.6 Scenario: A sustainable society dominated by clean energy, with global warming limited to far below 2°C through effective climate action;</li> <li>• IEA 2050 Net Zero Emissions Scenario (NZE Scenario): The global energy system and some developed economies achieve net zero emissions by 2050, with global warming limited to 1.5°C.</li> <li>• IPCC SSP 1–2.6情景：以清潔能源為主的可持續發展型社會，通過有效的氣候行動將全球變暖控制在遠低於2°C；</li> <li>• IEA 2050淨零排放情景(Net Zero Emissions by 2050, NZE)情景：到2050年全球能源系統和部分發達經濟體實現淨零排放，全球變暖被限制在1.5°C。</li> </ul>	<ul style="list-style-type: none"> <li>• IPCC SSP 3–7.0 Scenario: Characterized by insufficient global cooperation, slow transition progress, sustained high emissions, and escalating climate risks.</li> <li>• IPCC SSP 5–8.5 Scenario: Economic development is highly dependent on fossil fuels, with a continuous increase in greenhouse gas emissions and increasingly severe climate change.</li> <li>• IPCC SSP 3–7.0情景：全球合作不足，轉型緩慢，排放維持較高水平，氣候風險持續上升。</li> <li>• IPCC SSP 5–8.5情景：經濟發展高度依賴化石能源，溫室氣體排放量持續增加，氣候變化日益加劇。</li> </ul>



In addition, we have also used the publicly available data of the International Energy Agency’s Announced Pledges Scenario (APS) and Stated Policies Scenario (STEP) to assess the impact of factors such as carbon prices, energy prices, and clean energy investment on our finance.

此外，我們也使用了IEA的已宣佈承諾(Announced Pledges Scenario, APS)情景和既定政策(Stated Policies, STEP)情景的公開數據，以評估碳價、能源價格、清潔能源投入等因素對我們財務的影響。

### Transition risk

#### 轉型風險

#### Risk Name

#### 風險名稱

#### Tightened policies

#### 監管政策收緊

Impact Analysis  
影響分析

The regulatory requirements for corporate green transition are increasingly tightening globally. On the one hand, to achieve the “dual carbon” goal, China has formulated and promoted a series of energy-saving and emission-reduction plans, committing to reducing the energy consumption per unit of GDP by about 2.5% annually from 2021 to 2025. For example, the *Energy Consumption Per Unit Product of Pulp and Papermaking* (GB 31825-2024) (《制漿造紙單位產品能源消耗限額》) was released in April 2024. This standard sets higher requirements for the main products of the Group, such as tissue paper pulp and paper towel pulp, compared to the 2015 version. The energy consumption limit for level 1 reduced by about 10% from the old version. On the other hand, the Hong Kong Stock Exchange, where the Group is listed, has updated and released the *Environmental, Social and Governance Reporting Code* (《環境、社會及管治報告守則》), which puts forward stricter requirements for climate disclosure for listed companies.

全球範圍內對企業綠色轉型的監管要求日益收緊。一方面，為實現「雙碳」目標，中國已制定並推動了一系列節能減排計劃，致力於在2021年到2025年期間，將單位GDP的能耗每年下降約2.5%。例如，《製漿造紙單位產品能源消耗限額》(GB 31825-2024)已於2024年4月發佈，對衛生紙原紙、紙巾原紙等本集團主要產品相較2015版提出了更高的要求，1級單位能耗限額較舊版下降約10%。另一方面，本集團上市所在地香港交易所更新並發佈了《環境、社會及管治報告守則》，對上市企業氣候披露提出了更加嚴格的要求。

The Group continuously monitors the latest developments in domestic and foreign laws and regulations, and keeps enhancing the performance of sustainable development. By the end of the Reporting Period, the Group has not been involved in major violations and penalties. However, with the increasingly strict supervision and review in areas such as energy conservation and emission reduction, plastic packaging, and ecological protection, we may need to spend more on compliance costs. In the event of violations and penalties, our brand image may be damaged, which will further affect our product sales and revenue. Moreover, our suppliers, in order to meet compliance requirements, may increase the price of raw materials, leading to an increase in our costs.

本集團持續關注國內外法律法規的最新動態，並持續提升可持續發展績效，截至本報告期末，本集團未涉及重大違規處罰。然而，隨著針對節能減排、塑料包裝、生態保護等領域的監管和審查日益嚴格，我們需付出更多的合規成本。而如果發生違規處罰，我們的品牌形象可能受損，這將進一步影響我們的產品銷量與營收。此外，我們的供應商為應對合規要求可能將提高原材料售價，進而導致我們的成本上升。



## Transition risk

### 轉型風險

#### Risk Name 風險名稱

#### Increased pricing of GHG 碳排放成本上升

#### Impact Analysis 影響分析

The global carbon emission regulation is becoming increasingly strict. China launched the national carbon trading pilot market in 2021. By the end of 2025, the highest price of carbon quota in the national carbon market reached RMB106.02 per tonne, increased by more than 100% from the opening price of RMB48 per tonne in 2021. By the end of 2025, two of the Group's production companies had been included in the national carbon trading market, and three had been included in the provincial carbon trading market, with the overall carbon quotas basically showing a surplus. However, as the country's emission reduction requirements for enterprises continue to rise, the price of carbon may continue to rise in the future. We have predicted the proportion of carbon emission costs to our total revenue under the three scenarios of the IEA in 2030, 2040, and 2025, and the results are as follows:

全球對碳排放的監管日益嚴格，中國於2021年啟動了全國碳交易試點市場，截至2025年底，全國碳市場配額最高價格達到106.02人民幣／噸，較2021年開市價格48人民幣／噸上漲超過100%。截至2025年底，本集團已有2家生產公司被納入全國碳交易市場，3家生產公司被納入省級碳交易市場，整體碳額度基本呈現盈餘狀態。然而，隨著國家對企業減排要求的不斷提高，未來碳價可能將呈現不斷上漲的趨勢。我們對IEA的3個情景下2030年、2040年以及2025年碳排放成本在我們總營收的佔比進行了預測，預測結果如下：

Climate scenarios 氣候情景	2030	2040	2050
STEP	<0.01%	1%	1%
APS	<0.01%	2%	4%
NZE	<0.01%	2%	5%

GHG Emission Costs as A Percentage of Total Revenue  
溫室氣體排放成本佔總營收比例

The projection shows that by 2050, carbon pricing will account for about 5% of our total revenue under the NZE scenario, 4% under the APS scenario, and 1% under the STEP scenario. However, considering that in the future, with increasingly stringent policies, we may have more factories included in the carbon trading market, the proportion of carbon pricing to our total revenue may further increase. If we fail to take effective measures to reduce carbon emissions, carbon emission costs may become one of our main operational costs in the future.

預測結果顯示，到2050年，碳排放成本在NZE情景下將佔到我們總營收的約5%，在APS情境下將達到4%，在STEP情境下則為1%。然而，考慮到未來隨著政策趨嚴，我們可能有更多的工廠被納入碳交易市場，碳排放成本佔我們總營收的比例將可能進一步增加。如果我們無法採取有效的措施，降低碳排放，碳排放成本可能在未來成為我們的主要運營成本之一。



## Transition risk

### 轉型風險

#### Risk Name

#### 風險名稱

#### Consumer's green preference

#### 消費者偏好轉變

#### Impact Analysis

#### 影響分析

In recent years, the concept of sustainable development has further spread across the world, and green consumption has been recognized by an increasing number of consumers. IPSOS's FSC 2025 Global Consumer Research Report indicates that, 66% of consumers expect enterprises to ensure that the timber, paper products and packaging they sell "do not cause deforestation"; 65% prefer that sustainability information about products should be independently certified by third parties; 72% are more willing to choose products that "do not harm animals and plants"; and 62% prioritize purchasing goods packaged in renewable materials such as paper (rather than plastic). To meet the consumers' green demands, we need to increase our investment in the research and development of green products, purchase green and low-carbon raw materials, and increase investment in clean production. These steps will likely lead to an increase in our operating costs. Meanwhile, as consumers increasingly prefer green products, our product sales and revenue will gradually rise. However, if we fail to complete the green transition in time to meet the consumers' green demands, they may choose competitors that can provide green products, leading to a decline in market share and posing risk to our revenue.

近年來，可持續發展的理念在世界範圍內進一步傳播，綠色消費受到了越來越多消費者的認可。益普索公司(IPSOS)發佈的《FSC 2025 Global Consumer Research Report》指出，66%的消費者希望企業確保其銷售的木材、紙產品及包裝「不造成毀林」，65%傾向於產品的可持續發展信息應由第三方獨立認證；72%更願意選擇「不損害動植物」的產品，62%優先購買紙質等可再生材料包裝的商品(而非塑料)。為滿足消費者的綠色需求，我們需要加大綠色產品的研發投入，併購買綠色低碳的原材料，加大清潔生產投入等，這將造成我們運營成本的上升，同時，得益於消費者對綠色產品的偏好轉變，我們的產品銷量與營收將逐步上升。然而，如果我們無法及時完成綠色轉型，滿足消費者的綠色需求，消費者可能將選擇能夠提供綠色產品的同業，我們將面臨市場份額下降，營收減少的風險。

#### Risk Name

#### 風險名稱

#### Lack of raw materials

#### 原材料短缺

#### Impact Analysis

#### 影響分析

Raw material procurement is one of the main operating costs of the Group. With the increasingly severe climate change, on the one hand, extreme weather events may affect the stability of the supply chain, leading to a shortage of raw materials needed for production, disrupting the normal production and operation. On the other hand, the production of the Group's main raw materials, wood pulp, is greatly affected by the environmental impact of climate change. Changes in climate patterns may lead to a reduction in wood pulp production and an increase in prices, thus causing our operating costs to rise.

原材料採購是本集團最主要的運營成本之一。隨著氣候變化日益嚴峻，一方面，極端天氣事件可能將影響供應鏈的穩定性，導致生產所需原材料短缺，造成生產運營中斷。另一方面，本集團主要原材料木漿的生產受氣候環境影響較大，氣候模式的變化可能將導致木漿減產，價格上漲，進而造成我們的運營成本上升。



## Transition risk

### 轉型風險

By the end of the Reporting Period, raw material shortages or price fluctuations have not had a significant impact on the Group's business and finance. However, if the supply and prices of raw materials experience significant fluctuations due to the continuously changing climate environment in the future, our operations could be affected. If we raise our product prices to cope with the rising price of raw materials, it may lead to a decrease in the competitiveness of our products and a reduction in sales; while not raising the product prices may lead to a decline in our profits.

截至本報告期末，原材料短缺或價格波動尚未對本集團的業務和財務造成重大影響。然而，如果未來原材料的供應和價格由於不斷變化的氣候環境出現劇烈波動，我們的運營將受到較大的影響。如我們提高產品售價應對原材料價格上漲，可能導致我們產品的競爭力下降，銷量減少；而如果不提高產品售價，將可能導致我們的利潤下滑。

## Physical Risk

### 物理風險

#### Risk Name

#### 風險名稱

#### Frequent extreme weather

#### 極端天氣事件

#### Impact Analysis 影響分析

As climate change intensifies, the frequency and severity of extreme weather events such as typhoons and floods are also increasing. On the one hand, extreme weather may disrupt our production, storage, and transportation processes, affecting our normal operation and production, and increasing our operational costs. On the other hand, extreme weather may also damage our buildings, equipment, and facilities, threaten the health and safety of our employees, thereby reducing asset value, and simultaneously increasing disaster prevention investment and insurance costs.

隨著氣候變化日益嚴峻，颱風、洪水等極端天氣事件的發生頻率與嚴重程度也隨之上升。一方面，極端天氣可能會造成我們的生產、儲存、運輸等環節中斷，影響我們正常運營生產，並增加我們的運營成本。另一方面，極端天氣亦可能使我們的建築、設備、設施受損，威脅員工的健康與安全，造成資產價值減損，同時防災投入和保險費用增加。

Many of our factories are located in coastal areas and river banks that are prone to extreme weather, and in recent years, typhoons have already affected our operation and production. However, the financial and business impact of extreme weather is extremely minimal. Expenditures such as building and equipment repair costs, production halt losses, raw material damage losses, and property insurance premiums account for much less than 0.01% of our total revenue.

本集團多處工廠位於易受極端天氣影響的沿海地區及河流沿岸，近年來，已有部分颱風對我們的運營生產造成影響。然而，極端天氣在當前對我們的財務與業務影響極小，包括廠房設備損耗維修費用、停產損失、原材料受損損失、財產保險費等在內的支出在我們總體營收佔比小於0.01%。



## Physical Risk

### 物理風險

We conducted a quantitative assessment of extreme heat, typhoon, and flood risks for Hengan's operations in 2030 and 2050, covering 15 provinces where the Group's 32 factories are located. The findings indicate that extreme heat poses the most extensive threat. In most provinces including Chongqing, Zhejiang, Xinjiang, Shaanxi, and Fujian, risk levels are rated as high to very high in both 2030 and 2050. Overall, risks under the IPCC SSP 5-8.5 scenario are generally more severe than under SSP 3-7.0. Typhoon risk displays notable regional variation: coastal provinces such as Guangdong, Fujian, Zhejiang, and Shanghai face medium-high to high risk under both scenarios and both time horizons, while inland provinces generally remain at low risk. Additionally, the Group has no factories with high flood risk exposure; the vast majority of our factories have low or very low risk exposure levels.

我們對恒安在2030和2050年的極端高溫、颱風和洪水風險進行了定量分析，涵蓋工廠所在的15個省份。結果顯示，極端高溫是影響範圍最廣的風險，重慶、浙江、新疆、陝西、福建等多數省份在2030年和2050年均呈現中高至高風險，且在IPCC SSP 5-8.5情景下的風險等級整體高於SSP 3-7.0情景；颱風風險呈現顯著的地域差異，廣東、福建、浙江、上海等沿海省份在兩種情景及兩個年份普遍為中高及以上風險，內陸省份則普遍處於極低風險水平；此外，本集團不存在洪水風險暴露較高的工廠，絕大部分工廠的風險暴露水平均為低或極低。

Provinces where the factories located 工廠所在省份	Extreme High Temperature 極端高溫				Typhoon 颱風				Flood 洪水			
	SSP3-7.0		SSP5-8.5		SSP3-7.0		SSP5-8.5		SSP3-7.0		SSP5-8.5	
	2030	2050	2030	2050	2030	2050	2030	2050	2030	2050	2030	2050
Chongqing 重慶	High	High	High	High	Low	Low	Low	Low	Low	Low	Low	Low
Zhejiang 浙江	High	High	High	High	High	High	High	High	Low	Low	Low	Low
Xinjiang 新疆	High	High	High	High	Low	Low	Low	Low	Low	Low	Low	Low
Tianjing 天津	High	High	High	High	Low	Low	Low	Low	Low	Low	Low	Low
Sichuan 四川	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low
Shanghai 上海	High	High	High	High	High	High	High	High	Low	Low	Low	Low
Shaanxi 陝西	High	High	High	High	Low	Low	Low	Low	Low	Low	Low	Low
Shandong 山東	High	High	High	High	Low	Low	Low	Low	Low	Low	Low	Low
Liaoning 遼寧	High	High	High	High	Low	Low	Low	Low	Low	Low	Low	Low
Jiangxi 江西	High	High	High	High	Low	Low	Low	Low	Low	Low	Low	Low
Hunan 湖南	High	High	High	High	Low	Low	Low	Low	Low	Low	Low	Low
Hubei 湖北	High	High	High	High	Low	Low	Low	Low	Low	Low	Low	Low
Guangdong 廣東	High	High	High	High	High	High	High	High	Low	Low	Low	Low
Fujian 福建	High	High	High	High	High	High	High	High	Low	Low	Low	Low
Anhui 安徽	High	High	High	High	Low	Low	Low	Low	Low	Low	Low	Low





## Physical Risk

物理風險

### Risk Name

**Water shortage and drought**

風險名稱

水資源短缺及乾旱

Impact Analysis

影響分析

Water resources are an indispensable and important resource in Hengan's production and operation, but also crucial for the production of our main raw material pulp. Based on our experience, we have not yet encountered a situation where water scarcity has led to a reduction in production capacity or operation disruption, nor have we seen a reduction in supply or an increase in price of upstream raw materials due to water resource shortage. However, as water scarcity becomes increasingly severe due to global climate change, the Group has profoundly realized that the risk of water shortage and drought will exist for a long term.

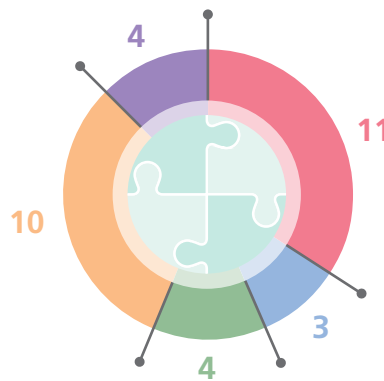
水資源不僅是恒安生產和運營過程中不可缺少的重要資源，也對我們的主要原材料紙漿的生產至關重要。基於我們過往的經驗，我們尚未經歷因水資源短缺而面臨產能下降或運營中斷的情況，亦未出現上游原材料因水資源短缺而減少供應或價格上漲。然而，隨著水資源短缺因全球氣候變化加劇而日益嚴重，本集團深刻認識到水資源短缺及乾旱的風險將長期存在。

We used Aqueduct Water Risk Atlas, a water risk tool developed by the World Resources Institute (WRI) to conduct water pressure risk assessments for our factories. The assessment results show that the Group has 11 factories located in areas defined by extremely high baseline water pressure values and 3 factories in areas defined by high baseline water pressure values:

我們使用世界資源研究所「水道」水風險工具對我們的工廠開展水壓力風險評估，評估結果顯示，本集團位於由極高和高基準水壓力值定義的水壓力區域的工廠數量分別為11家和3家：

### Results of Water Pressure Risk Assessment

水壓力風險評估結果



 Extremely High Risk  
極高風險

 High Risk  
高風險

 Medium-high Risk  
中高風險

 Medium-low Risk  
低中風險

 Low Risk  
低風險



## Physical Risk

### 物理風險

Additionally, we also analyzed the future water pressure risks faced by the Group's factories. According to the results of IPCC SSP 5-8.5 scenario analysis, the number of factories in the Group located in areas defined by extremely high baseline water pressure values will be 10 in both 2030 and 2050, and the number of factories located in areas defined by high water pressure values will be 5 in 2030 and 4 in 2050, respectively, showing no significant change compared to the current situation. However, the rise in global temperatures and changes in rainfall patterns may further exacerbate the risk of water scarcity in the future. This could expose our factories located in areas with extremely high and high water pressure to operational risks, including potential water shortages, reduced production or shutdowns, and increased water-related costs. Such developments may lead to lower revenue and higher production expenses.

此外，我們亦對本集團工廠未來面臨的水壓力風險進行分析。根據IPCC SSP5-8.5情景分析結果，在2030年和2050年本集團位於由極高基準水壓力值定義的水壓力區域的工廠數量均為10家，位於由高基準水壓力值定義的水壓力區域的工廠數量分別為5家和4家，與目前相比未出現重大變化。全球氣溫升高和降雨模式的變化可能在未來進一步加劇水資源短缺風險，我們位於極高和高水壓力區域的工廠可能將面臨缺水的風險，並因此而減產甚至停產，或面臨更高的水資源成本，進而造成營收下降和生產成本上升。

Provinces where the factories located 工廠所在省份	Water Pressure Risk 水壓力風險	
	2030	2050
Chongqing 重慶	Low-medium Risk	Low-medium Risk
Zhejiang 浙江	Medium Risk	Medium Risk
Xinjiang 新疆	High risk	High risk
Tianjing 天津	Medium Risk	Medium Risk
Sichuan 四川	Medium Risk	Medium Risk
Shanghai 上海	Medium Risk	Medium Risk
Shaanxi 陝西	High risk	High risk
Shandong 山東	High risk	High risk
Liaoning 遼寧	Medium Risk	Medium Risk
Jiangxi 江西	Medium Risk	Medium Risk
Hunan 湖南	Low-medium Risk	Low-medium Risk
Hubei 湖北	High risk	High risk
Guangdong 廣東	Medium Risk	Low-medium Risk
Fujian 福建	Medium Risk	Medium Risk
Anhui 安徽	Low-medium Risk	Low-medium Risk

High risk 極高 (Red)    Medium-high Risk 高 (Orange)    Medium Risk 中高 (Light Orange)    Low-medium Risk 中低 (Light Green)    Very Low Risk 低 (Green)



## Climate Opportunities

### 氣候機遇

Opportunity Name 機遇名稱	Develop and/or increase low-carbon products 開發和/或增加低碳商品
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Impact Analysis  
影響分析

With the government's increasingly stringent regulatory requirements for the green and low-carbon attributes of products, as well as consumers' growing preference for green and low-carbon goods, developing and increasing low-carbon products can not only meet compliance requirements but also attract green consumption.

隨著政府對產品綠色環保屬性的監管要求不斷提高，以及消費者越來越青睞綠色低碳商品，開發和增加低碳商品不僅能滿足合規要求，亦能吸引綠色消費。

The Group actively develops and increases the low-carbon environmental attributes of products through multiple initiatives, including improving production and storage logistics efficiency, increasing the use of renewable energy, selecting green and biodegradable raw materials in product design, and continuously reducing the weight of products. Looking ahead, we will further calculate the carbon footprint of core products and carry out targeted emission reduction actions based on the calculation results. And we will increase the proportion of low-carbon products to meet consumers' green consumption needs, thereby improving the market share of green products and achieving continuous revenue growth.

本集團通過提升產品生產及倉儲物流效率、加大可再生能源使用、以及在產品設計過程中選用綠色、可降解的原材料，並持續的從減少產品克重等方式積極開發和增加商品低碳環保屬性。未來，我們將進一步測算核心產品的碳足跡，並根據測算結果開展針對性的減排行動，不斷增加低碳商品的佔比，滿足消費者的綠色消費需求，從而提升綠色市場佔有率，並實現營收的不斷增長。

### 2.3.2. Resilience Assessment

Scenario analysis reveals transition and physical risks with various degrees under different climate conditions, while we have already been equipped with certain climate resilience to face the challenge.

In terms of physical risks, our manufacturing bases are distributed in different areas, and the impact of single climate events at specific locations on us is limited. Based on our previous experience, extreme weather events have never had a significant impact on the Group. According to the results of climate scenario analysis, the impact of future impact of the two major physical risks, extreme weather events and water shortage and drought, will also be relatively small. At the same time, we have formulated and continuously improved business continuity plans, built flexible production and supply systems, implemented emergency response plans, so as to strive to minimize the negative impact of extreme weather.

### 2.3.2. 韌性評估

情景分析的結果顯示，我們在未來將面臨不同氣候條件下程度各異的轉型和物理風險，但我們已經具備了一定的氣候韌性去迎接挑戰。

在物理風險方面，我們的生產基地分佈於不同地區，特定地點的單一氣候事件對我們產生的影響有限，極端天氣事件過去也從未對本集團產生重大影響。根據氣候情景分析結果，未來極端天氣事件和水資源短缺及乾旱兩大物理風險對我們的影響亦較小。同時，我們通過制定並不斷完善業務連續性計劃，打造柔性生產供應系統，落實應急響應方案，努力將極端天氣的負面影響降至最低。



In terms of transition risks, although 5 of the Group's subsidiaries have been incorporated into the carbon trading market. By the end of 2025, the overall carbon quota was in a surplus state. The Group has never experienced major violations related to climate or the environment, and fluctuations in raw material prices have not had a significant impact on the Group. The results of climate scenario analysis indicate that as the carbon prices continue to rise and the number of factories of the Group included in the carbon trading market increases, carbon emission costs may become one of the Group's main operating costs. The Group has promoted a series of projects to improve energy efficiency and the use of green energy. Given the trend of continuously decreasing unit costs of green energy investment and operation, these projects will help us achieve cost reduction and efficiency improvement with relatively less investment, and greatly reduce the costs of carbon emission and compliance. At the same time, we can also establish a green and low-carbon brand image through green transition, meet consumers' demand for green products, and thereby seize climate-related opportunities to achieve revenue growth.

However, considering that addressing climate change is a long-term process, the climate policies of various countries and regions may continue to evolve, and there is significant uncertainty regarding the ultimate climate scenarios and their impact on us. Therefore, we closely monitor the latest trends in climate, environmental, and other related regulatory developments in real-time. We continue to promote green transition strategies, and promote environmentally friendly production methods throughout the value chain. We also collaborate with governments, non-governmental organizations, and industry partners to jointly develop and implement innovative solutions. In addition, we continuously optimize our warehousing and logistics layout, implement emergency plans for extreme weather, enhance climate resilience, and ensure the long-term sustainable development of the Company.

### 3. RISK MANAGEMENT

We have fully realized that climate change has brought significant uncertainties to business operations and market environment, which may lead to risks such as supply chain disruptions, resource shortages, and rising production costs. Therefore, effectively managing climate risks not only helps reduce potential losses for businesses but also provides essential support for their long-term resilience and sustainable growth. We incorporate climate risk management into the Company's comprehensive risk management system. We continuously evaluate the Group's climate resilience, refine related strategies, and embed climate considerations deeply into overall risk management and business strategy.

在轉型風險方面，儘管本集團已有5家子公司被納入碳交易市場，但截至2025年底，總體碳配額呈盈餘狀態，本集團從未發生氣候或環境相關的重大違規事件，原材料價格波動亦未對本集團產生重大影響。氣候情景分析結果顯示，隨著未來碳價可能不斷提高和本集團納入碳交易市場的工廠數量增加，碳排放成本可能成為本集團的主要運營成本之一。本集團推動了一系列能源效率提升、綠色能源使用等項目，結合未來綠色能源投入與運營單位成本不斷下降的趨勢，此類項目將有助於我們在投入較少資金的情況下實現降本增效，並極大地降低碳排放成本與合規成本。同時，我們亦能通過綠色轉型樹立綠色低碳的品牌形象，滿足消費者綠色產品需求，進而把握氣候相關機遇，實現營收的增長。

然而，考慮到應對氣候變化是一個長期的過程，各個國家及地區的氣候政策可能不斷變化，最終的實際氣候情景以及對我們的影響存在重大的不確定性。因此，我們實時關注最新的氣候、環境及其他相關監管趨勢，繼續推動綠色轉型策略，在價值鏈推廣環境友好的生產方式。我們亦與政府、非政府組織及行業夥伴合作，共同開發和實施創新解決方案。此外，我們不斷優化倉儲和物流佈局，落實極端天氣應急預案，提升氣候韌性，確保公司的長期可持續發展。

### 三 · 風險管理

我們充分認識到，氣候變化正為企業運營與市場環境帶來顯著不確定性，可能引發供應鏈中斷、資源短缺及生產成本上升等風險。因此，有效管理氣候風險不僅有助於降低企業潛在損失，更名為企業穩健發展提供有力支持。為此，我們已將氣候風險管理全面納入企業風險管理框架，持續評估集團的氣候韌性，優化管理策略，並將氣候因素深度整合至整體風險管理與業務戰略之中。



### 3.1. Climate Risk Management Process

In terms of identifying and assessing climate-related risks and opportunities, we regularly conduct the identification of climate-related risks and opportunities based on the previous year's result and the latest climate regulatory trends and industry dynamics. We also carry out quantitative impact analysis based on the latest climate scenario data. This allows us to thoroughly assess the climate resilience of the Group, optimize management strategies, and further integrate climate into our overall risk management and business strategies.

### 3.1. 氣候風險管理流程

在氣候相關風險及機遇識別與評估方面，我們定期在往年的基礎上，結合最新的氣候監管趨勢與行業動態開展氣候相關風險及機遇的識別，並根據最新的氣候情景數據開展量化影響分析，深入評估本集團的氣候韌性，優化管理策略，進一步將氣候納入我們的整體風險管理與業務策略中。

#### Identification 識別

- Based on Hengan's previous identification results and international mainstream climate risk and opportunity libraries, we conducted extensive peer research and climate regulatory trend analysis. Taking into account Hengan's current operations and the latest business plans, we have preliminarily identified potential climate-related risks and opportunities.  
在恒安往年識別結果和國際主流氣候風險及機遇庫的基礎上，開展廣泛的同業調研和氣候監管趨勢分析，並結合恒安的運營現狀和最新的業務規劃，初步識別潛在的氣候相關風險及機遇。

#### Assessment 評估

- We conducted climate questionnaire surveys, inviting representatives from various departments within Hengan to quantitatively assess the impact of climate-related risks and opportunities on Hengan in the short, medium, and long term<sup>1</sup> from two dimensions: probability of occurrence and degree of impact. Further prioritization was carried out based on the opinions of Hengan's management and external experts to identify significant climate-related risks and opportunities for Hengan.  
開展氣候問卷調研，邀請恒安內部的部門代表從發生的概率和影響程度兩個維度，對氣候相關風險及機遇在恒安短期、中期以及長期的影響進行定量評估，並結合恒安管理層以及外部專家的意見進行進一步的優次排序，識別恒安重大氣候相關風險及機遇。

#### Response 應對

- We developed tailored response measures based on evaluation results and collaborate with relevant departments to embed these actions into the Group's day-to-day business operations. This approach helps mitigate climate-related risks and capture emerging opportunities.  
依據評估結果建立應對措施，並聯合相關部門將這些應對舉措融入到本集團的日常業務經營過程中，以降低氣候風險影響，並把握氣候機遇。

#### Monitoring 監測

- We conducted routine cross-departmental monitoring, consolidate information periodically, and report and assess progress through the Group's ESG governance structure to continually improve management effectiveness.  
協同各部門開展常態化監測工作，並定期匯總信息，依託本集團ESG管治架構進行相關的匯報與評估，持續優化管理成效。

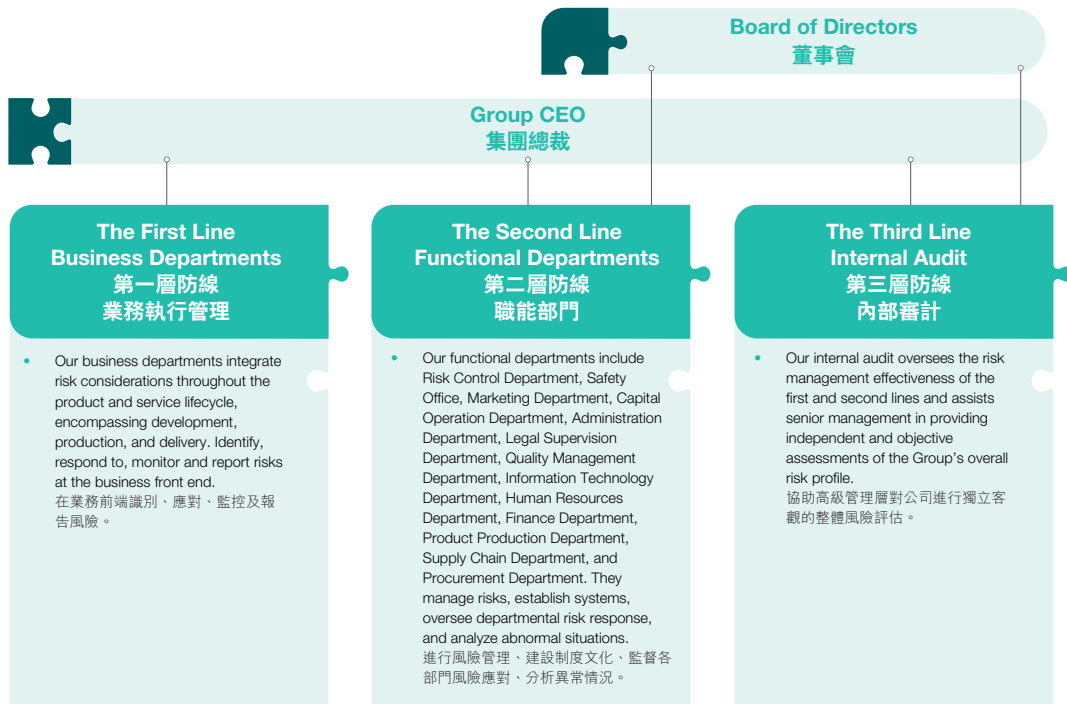


### 3.2. Risk Management

Hengan has established a risk management framework consisting of the “Three Levels of Defense” based on the Committee of Sponsoring Organizations of the Treadway Commission (COSO) internal control model. The Board of Directors and Chief Executive Officer (CEO) are jointly responsible for the Group’s risk management to identify, assess and manage significant risks faced by the Group:

### 3.2. 風險管理

恒安依據COSO內部控制模型，設立由「三層防線」組成的風險管理框架，由董事會及集團總裁共同負責本集團的風險管理，以識別、評估和釐定集團的重要風險：



Each of the three levels of defense performs its own duties and cooperates with each other flexibly, which effectively guarantees the operational compliance of the enterprise. Business departments are responsible for identifying business-related risks. Functional departments such as the internal control department, the security management office and the finance department work together with business departments to integrate internal and external resources, and design and optimize control processes for the various operational risks identified. Internal audit is the supervisory department for the Group’s risk management. Through annual audits and special audits, it assesses the overall effectiveness of the Group’s risk management, and through training, publicity, routine inspections and other measures, it enhances risk management awareness among employees at all levels and builds a risk management culture.

三層防線各司其職、靈活配合，有力保障企業運營合規。業務部門負責識別業務相關風險，內控部、安全管理辦公室、財務部等職能部門協同業務部門整合內外部資源，為識別出的各類運營風險設計和優化控制流程。內部審計是集團風險管理的監督部門，通過年度審計和專項審計等方式，整體評估集團風險管理效果，並通過培訓宣導、常規檢查等措施提升各級員工的風險管理意識，構建風險管理文化。



## 4. INDICATORS AND TARGETS

Hengan has set specific indicators and targets for climate actions, closely tracking greenhouse gas emissions and energy consumption data to ensure their accuracy and transparency. For the papermaking sector, we have set clear environmental goals to actively respond to the challenges of climate change. Through continuous technological innovation and green transition, we are committed to reducing environmental impact, promoting sustainable development, and contributing to the construction of a low-carbon future.

### 4.1. Greenhouse Gas Emission Data

To tackle the complex challenges of greenhouse gas emission data statistics, Hengan has carried out comprehensive greenhouse gas emission inventory work, involving a thorough review of the Group's scope 1, scope 2, and scope 3 greenhouse gas emission sources. This work aims to accurately grasp the current status of the Company's greenhouse gas emissions through systematic investigation, thereby solving the long-standing difficulties in data collection and analysis. This not only helps the Company better understand its impact on the environment but also provides a scientific basis for developing effective emission reduction strategies in the future. We have introduced digital methods into the greenhouse gas emission inventory work. By utilizing the automatic greenhouse gas emission accounting system, we are able to collect, analyze, and accurately calculate various emission data in real time, which not only improves the efficiency of data processing but also provides management with intuitive and comprehensive decision support through visualization methods.

#### 4.1.1. Accounting Standards

The GHG emissions are measured by carbon dioxide equivalent according to the *Greenhouse Gas Protocol Corporate Accounting and Reporting Standard* (《溫室氣體核算體系：企業核算與報告標準》) and the *Greenhouse Gas Accounting System: Accounting and Reporting Standards for Enterprise Value Chain (Scope 3)* (《溫室氣體核算體系：企業價值鏈(範圍3)核算與報告標準》) issued by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD), and with reference to the *Guidelines for the Calculation and Reporting of Greenhouse Gas Emissions from Paper and Paper Products Manufacturers (Trial)* (《造紙和紙製品生產企業溫室氣體排放核算方法與報告指南(試行)》) and the *Guidelines for Accounting Methods and Reporting of Greenhouse Gas Emissions of Power Generation Enterprises in China (Trial)* (《中國發電企業溫室氣體排放核算方法與報告指南(試行)》).

## 四· 指標和目標

恒安在氣候行動上設定具體的指標與目標，密切追蹤溫室氣體排放和能耗數據，確保數據的準確性和透明度。針對造紙板塊，我們設定了明確的環境目標，以積極應對氣候變化挑戰。通過持續的技術創新和綠色轉型，致力於降低環境影響，推動可持續發展，為構建低碳未來貢獻力量。

### 4.1. 溫室氣體排放數據

恒安為應對溫室氣體排放數據統計的複雜挑戰，開展全面的溫室氣體排放盤查工作，全面摸排集團的範圍1、範圍2及範圍3溫室氣體排放源，旨在通過系統性的排查，精確掌握企業溫室氣體的排放現狀，從而解決長期以來數據收集與分析的難題，不僅有助於企業更好地理解自身對環境的影響，也為後續制定有效的減排策略提供了科學依據。我們已在溫室氣體排放盤查工作中引入數字化手段，通過溫室氣體排放自動核算系統，實時收集、分析並準確核算各類排放數據，不僅提高了數據處理的效率，還通過可視化的方式，為管理層提供了直觀、全面的決策支持。

#### 4.1.1. 核算標準

本公司依據世界資源研究所(WRI)與世界可持續發展工商理事會(WBCSD)發佈的《溫室氣體核算體系：企業核算與報告標準》《溫室氣體核算體系：企業價值鏈(範圍3)核算與報告標準》，同時參考《造紙和紙製品生產企業溫室氣體排放核算方法與報告指南(試行)》《中國發電企業溫室氣體排放核算方法與報告指南(試行)》等標準進行溫室氣體核算和報告。



#### 4.1.2. Organizational Boundary

The calculation scope of greenhouse gas emissions of Hengan covers 31 production companies.

#### 4.1.3. Operational Boundary

The Group identifies the greenhouse gas emissions associated with Hengan in accordance with the standard requirements, and categorizes the emissions by Scope 1 direct GHG emissions, Scope 2 indirect energy GHG emissions and Scope 3 other indirect GHG emissions.

#### 4.1.4. GHG Emissions

The GHG emissions of Hengan in Scope 1 and Scope 2 in 2025 are as follows:

#### 4.1.2. 組織邊界

恒安溫室氣體排放核算範圍為本集團旗下31家生產公司。

#### 4.1.3. 運營邊界

本公司按標準要求識別與本公司相關的溫室氣體排放，並按範圍1直接溫室氣體排放、範圍2能源間接溫室氣體排放和範圍3其他間接溫室氣體排放進行分類。

#### 4.1.4. 溫室氣體排放量

經核算，恒安2025年範圍1和範圍2的溫室氣體排放情況如下：

GHG emission in Scope 1&2 (tons carbon dioxide equivalent, tCO <sub>2</sub> e) 溫室氣體排放範圍1&2(噸二氧化碳當量, tCO <sub>2</sub> e)	2025	2024
<b>Total GHG emissions: Scope 1 + Scope 2 (Location-based)</b> 總溫室氣體排放量：範圍1&範圍2(基於地域)	<b>1,516,074</b>	1,427,401
<b>Total GHG emissions: Scope 1 + Scope 2 (Market-based)</b> 總溫室氣體排放量：範圍1&範圍2(基於市場)	<b>1,497,030</b>	1,391,750
Scope 1: Direct GHG emissions 範圍1：直接溫室氣體排放	<b>585,590</b>	557,885
Scope 2: Indirect GHG emissions — Location-based 範圍2：間接溫室氣體排放(基於地域)	<b>930,484</b>	869,516
Scope 2: Indirect GHG emissions — Market-based 範圍2：間接溫室氣體排放(基於市場)	<b>911,440</b>	833,865
<b>Scope 1&amp;2 based on GHG emission categories</b> <b>(tons carbon dioxide equivalent, tCO<sub>2</sub>e)</b> 根據溫室氣體排放種類劃分的範圍1&2(噸二氧化碳當量, tCO <sub>2</sub> e)		
Carbon dioxide CO <sub>2</sub> 二氧化碳CO <sub>2</sub>	<b>1,512,237</b>	1,423,673
Methane CH <sub>4</sub> 甲烷CH <sub>4</sub>	<b>248</b>	415
Nitrous oxide N <sub>2</sub> O 氧化亞氮N <sub>2</sub> O	<b>1,756</b>	1,606
Hydrofluorocarbons HFC <sub>s</sub> 氫氟碳化物HFC <sub>s</sub>	<b>1,731</b>	1,606
Sulfur hexafluoride SF <sub>6</sub> 六氟化硫SF <sub>6</sub>	<b>101</b>	101



In 2025, the GHG emissions of Hengan in Scope 3 are as follows:

經核算，恒安2025年主要範圍3溫室氣體排放情況如下：

GHG emission in Scope 3 (Kilotonnes CO <sub>2</sub> equivalent, ktCO <sub>2</sub> e) 溫室氣體排放範圍3(千噸二氧化碳當量, ktCO <sub>2</sub> e)	2025	2024
<b>Total GHG emissions: Scope 3<sup>3</sup></b> <b>範圍3溫室氣體排放總量<sup>3</sup></b>	<b>1,802</b>	1,853
Category 1 – Purchased goods and services <sup>4</sup> 類別1 – 購買的商品和服務 <sup>4</sup>	<b>1,273</b>	1,298
Category 2 – Capital goods 類別2 – 資本商品	<b>3</b>	5
Category 3 – Fuel and energy-related activities 類別3 – 燃料和能源相關活動	<b>201</b>	188
Category 4 – Upstream transportation and distribution & Category 9 – Downstream transportation and distribution 類別4 – 上游運輸和配送&類別9 – 下游運輸和配送	<b>239</b>	282
Category 5 – Waste generated in operations 類別5 – 運營中產生的廢物	<b>3</b>	2
Category 6 – Business travel 類別6 – 商務旅行	<b>1</b>	1
Category 7 – Employee commuting 類別7 – 僱員通勤	<b>10</b>	10
Category 12 – End-of-life treatment of sold products 類別12 – 處理壽命終止的售出產品	<b>72</b>	67

<sup>3</sup> Scope 3 GHG emission factors from US EPA, UK Government GHG Conversion Factors for Company Reporting, Ecoinvent, China Products Carbon Footprint Factors Database (CPCD), etc.

<sup>4</sup> Category 1 – Purchased goods and services covers the Group's procurement of nine major raw materials such as wood pulp, polymers, nonwovens, plastics and cartons.

<sup>3</sup> 範圍3溫室氣體排放因子來自US EPA、UK Government GHG Conversion Factors for Company Reporting、Ecoinvent、中國產品全生命週期溫室氣體排放系數庫等。

<sup>4</sup> 類別1 – 購買的商品和服務的排放涵蓋本集團採購木漿、高分子、無紡布、塑料、紙箱等9種主要原材料。



#### 4.2. Energy Consumption Data

Hengan adheres to the concept of green development, actively strengthens its energy management system, and maintains a high level of attention for energy consumption. We have established a refined energy consumption monitoring mechanism to achieve comprehensive, real-time tracking and analysis of the Company's energy consumption. Through the introduction of cutting-edge energy-saving technologies and optimized energy allocation, Hengan has effectively reduced energy consumption levels, demonstrating a strong sense of environmental responsibility.

#### 4.2. 能耗數據

恒安秉持綠色發展理念，積極強化能源管理體系，對能源消耗情況保持高度關注。我們構建精細化的能源消耗監控機制，實現對企業能耗的全面、實時追蹤與分析。通過引入前沿節能技術與優化能源配置，恒安有效降低了能耗水平，展現出卓越的環保責任擔當。

Energy consumption 能源消耗	2025	2024	Unit 單位
<b>Direct energy consumption</b> 直接能源消耗	2,133,138	2,058,305	MWh 兆瓦時
Natural gas 天然氣	84,175,073	90,868,860	m <sup>3</sup> 立方米
Anthracite 無煙煤	181,735	168,241	tonnes 噸
Liquefied natural gas 液化天然氣	12,555	7,023	tonnes 噸
Liquefied petroleum gas 液化石油氣	1.1	3.1	tonnes 噸
Diesel fuel 柴油	16.37	16.95	tonnes 噸
Internal photovoltaic power 自發光伏	5,712	3,126	10,000 kWh 萬度
<b>Indirect energy consumption</b> 間接能源消耗	1,948,856	1,823,445	MWh 兆瓦時
Purchased electricity 外購電	127,866	122,916	10,000 kWh 萬度
Purchased green electricity Internal photovoltaic power 其中外購綠電	3,589	6,719	10,000 kWh 萬度
Purchased steam and heat 外購蒸汽與熱	2,412,692	2,139,442	GJ 吉焦
<b>Total energy consumption</b> 能耗總量	4,081,994	3,881,749	MWh 兆瓦時
<b>Energy consumption intensity</b> 能耗密度	1.8	1.7	MWh/RMB10,000 of revenue 兆瓦時/萬元人民幣銷售額



### 4.3. Environmental Targets for the Papermaking Sector

Hengan has established the control targets for energy for the papermaking sector and water resources:

### 4.3. 造紙板塊環境目標

恒安已制定了造紙板塊能源和水資源的管控目標要求：

Type 類型	Target <sup>5</sup> 目標 <sup>5</sup>
Energy consumption intensity 能耗密度	Control the energy intensity of the papermaking sector below 0.4 tonnes of standard coal per tonne of paper by 2030. 2030年前，造紙板塊能耗密度控制在0.4噸標煤／噸紙以下。
Water consumption intensity 用水密度	Control the water withdrawal intensity of the papermaking sector below 10 tonnes per tonne of paper by 2030. 2030年前，造紙板塊用水密度控制在10噸／噸紙以下。
Wastewater intensity 廢水密度	Control the wastewater intensity of the papermaking sector below 4 tonnes per tonne of paper by 2030. 2030年前，造紙板塊廢水密度控制在4噸／噸紙以下。

In 2025, the energy consumption intensity per tonne of paper was 11% lower than the Level 1 requirement of the *Energy Consumption Per Unit Product of Pulp and Papermaking* (《制漿造紙單位產品能源消耗限額》) (GB 31825-2024).

2025年，本集團噸紙能耗密度比《製漿造紙單位產品能源消耗限額》(GB 31825-2024)中的1級要求低11%。

Scope 範圍	Metrics 指標	2030 target 2030目標	2025	2024	2023	Unit 單位
Papermaking sector 造紙板塊	Energy consumption intensity 能耗密度	Achieved 滿足	0.34	0.34	0.35	tce/tonne of paper 噸標煤／噸紙
	Water withdrawal intensity 取水密度	Achieved 滿足	8.0	6.8	5.8	tonne/tonne of paper 噸／噸紙
	Wastewater density 廢水密度	Achieved 滿足	3.6	3.4	3.3	tonne/tonne of paper 噸／噸紙

<sup>5</sup> In recent years, the Group has introduced new types of paper machines, such as QRT and TAD, which consume more energy and water per unit of output than traditional papermaking equipment. To meet the market's higher demands for product quality, we have increased the frequency of rinsing during the production process to ensure consistent product quality. In addition, the Group continues to launch products with high hygiene standards (such as kitchen paper), which require stricter production processes and consequently increase water consumption. Due to the above reasons, the water withdrawal intensity in the papermaking segment has risen this year. In response to this change, the Group has updated the environmental targets for the papermaking segment during the reporting period to promote more systematic management.

<sup>5</sup> 本集團近年來引入了QRT、TAD等新型紙機，其單位能耗與水耗均高於傳統造紙設備；為滿足市場對產品質量的更高要求，我們與生產過程中增加了沖洗頻次，以保障產品品質穩定；此外，本集團持續推出衛生要求高的產品（如廚房用紙等），其生產工藝要求更為嚴格，相應增加了用水需求。基於上述原因，本年度造紙板塊取水密度有所上升。為應對此一變化，本集團已於報告期內更新造紙板塊環境目標，以更系統地推進相關管理工作。



恒安國際集團有限公司  
HENGAN INTERNATIONAL GROUP CO., LTD