Towards a Climate and ESG Disclosure Guidance for Companies in China
(December 2022)

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1. Foreword

With the increasing focus on ‘green’ and climate-resilient business development, climate and environmental disclosure (C-ESG) reporting is becoming an essential component of company reporting requirement. This emerging global trend is now ascending in China as it seeks to green its economy and improve social development. However, as a relatively new reporting requirement for China, companies struggle to decide when, where, and how to produce a C-ESG report. This document, produced by the GIZ-funded project ‘Capacity building and piloting of climate and environment risk disclosures in Jiangsu Province’, represents in-depth research on theories, methods, standards and frameworks of climate and environmental risk disclosure from both domestic and international resources, and collects and summarises research reports and reviews based on international best practices and latest domestic trends. Several capacity-building training seminars were conducted with the strong support and cooperation of the GIZ Nanjing Project Office. Given the research results of the project team and the communication with relevant pilot enterprises, this report supplies guidance to China-listed companies on disclosing C-ESG issues. It includes dominant global frameworks, national and international best practice examples, and some C-ESG challenge questions to be considered.
2. C-ESG Disclosure Guidance—Purpose and Learning Objectives

2.1 Purpose of the Guiding Document

2.1.1 To Provide Practical, Helpful Guidance

This guide will help companies and other interested parties understand and address the topics related to climate and environmental, social, and governance (C-ESG) issues in their disclosure reporting and communication, as these factors influence companies in many ways today.

The guide consolidates companies' and stock exchanges' national and international current practices.

Reading this guide will also encourage users to focus and limit their ESG-related reporting to material content. This is because investors/analysts are not interested in too detailed or irrelevant information. The guide seeks to navigate users through the complex process of identifying appropriate and relevant content to their capital market communication.

Despite the universal approach embodied by this guide, companies should bear in mind that the substance of their disclosures will depend on their industry or sector and an individual analysis of the materiality of the information to their specific stakeholders. The recommendations are applicable across all capital markets. The best practice examples are a result of various discussions with involved investors. With its focus on capital market communication, this guide is written explicitly with the investors'/analysts' perspective in mind.

2.1.2 To Facilitate Voluntary Reporting

The guide is designed to support report issuers in ensuring effective capital market communication, as it affects corporate sustainability disclosure. It is not designed to constitute mandatory procedures for capital market communication that apply to listed issuers (no statement of compliance is required). However, it delivers sound reasons for voluntarily complementing financial disclosure to allow for a more holistic and thus, robust assessment of corporate performance by institutional and retail investors in the equity and bond markets. The overall objectives are to increase confidence and trust in the company and to deliver additional arguments for investment.

2.1.3 To Complement Existing Standards

The guide is also not intended to replace existing standards (codes, guidelines etc.) for managing or reporting sustainability performance. It should be treated as a guidance that summarises demand-side requirements from investors/analysts, helps companies to use and benefit from existing national and international standards, and identifies suitable, company-specific ways of integrating relevant sustainability aspects into their reporting.

2.1.4 To Consider Resource Constraints at the Corporate Level

In particular, small and medium-sized businesses have limited capacity for investing in corporate reporting. The guide, therefore, focuses on a cost-effective implementation approach that adds value. Furthermore, by consolidating internationally accepted practices concerning sustainability-reporting to investors, the guide identifies key disclosure issues and presents the information in line with the needs of investors/analysts.
2.1.5 Fill the Increasing Market Demand

There is an increasing market demand for accounting and reporting (disclosure) of C-ESG-related impacts on business activity and value chains. Investors and large private- and public-sector procurement organisations are requesting these types of disclosures from the suppliers and companies in which they are invested. Business benefits to be gained from developing and issuing C-ESG disclosures summarised by the CDP include:

• Protect and improve company reputation – build trust through transparency and respond to rising environmental concerns among the public

• Boost competitive advantage – gain a competitive edge when it comes to performance on the stock market, access to capital, and winning tenders

• Anticipate regulation – prepare for likely mandatory environmental reporting rules

• Uncover risks and opportunities – identify emerging environmental risks and opportunities that would otherwise be overlooked to inform data-driven strategy

• Track and benchmark progress – benchmarking of environmental performance against industry peers provides perspective and insight on company performance and progress

• Accounting firms can provide more comprehensive assurance of companies reporting on climate change and natural capital-related performance

• Disclosure is essential to improved business performance, positive community impacts, and environmental action (CDP, 2022).

2.2 Learning Objectives

The objectives of the section are for the reader to:

• Understand the general current state and trends of C-ESG disclosure, both on an international and national level

• Understand the business impacts, both from a risk and opportunity perspective, of climate change

• Develop a general understanding of the key frameworks and standards for non-financial information – those of CDP, CDSB, GRI, IIRC, ISO, and SASB

• Identify and prioritise your target audience(s) and the communication objectives to each audience. E.g. informing about the impact of the social and natural environment on the organisation (also in terms of financial risks and opportunities), telling your value creation story and/or explaining your organisation’s positive and negative impacts on sustainable development.

• Know your target audiences to gain insight into how they use and source sustainability information and what they find material, using the content of the frameworks and standards to inform this process.

• Determine which framework(s) or standard(s) best meet the needs of your target audience(s), taking into account which framework(s) or standard(s) best align to your existing internal (management) reporting.

• Decide what channel (e.g. mainstream, integrated, sustainability, specialist) you will use to report to your target audiences.
3. C-ESG Disclosure Process Overview

3.1 Global Trends in ESG Disclosure

As the focus on “Environmental, Social, and Governance” (ESG) performance grows in response to regulations and pressure from investors and customers, a company must understand, disclose and improve upon their impacts. Environmental and social vulnerabilities can surface rapidly and directly impact corporate performance. Issues such as climate change, cyber security, biodiversity, human rights, water security, diversity, and resource sourcing represent substantial business risks and opportunities.

Several C-ESG issues, once considered by many to be ‘non-financial,’ are increasingly affecting companies’ financial performance and are crucial to creating long-term value. For these financially necessary, or material C-ESG factors, conversations within organizations are moving beyond corporate social responsibility (CSR) and sustainability departments to include core business functions, such as finance, risk, and operations—driven by those at the highest governance and management levels.

Organisations must navigate numerous challenges related to their operational impact on the environment, especially as it relates to energy and climate. Rising regulatory requirements and financial, customer, and shareholder demands present both risks and opportunities for operational practices, commercial strategy, organizational resilience, and brand reputation.

Companies can struggle with deciding when to start, where, and what to prioritize, and even simple questions like “Why are we doing this? Do all C-ESG topics matter equally? How do we measure success and progress? Where do we report or disclose?”

Many frameworks, standards, and management systems exist to help answer these questions and ensure that the corporate reporting landscape is easily navigable and responds to the needs of both the data preparers and users.

This guide aims to identify practical means by which the C-ESG frameworks, standards and related management systems can be aligned and rationalised. Efficient and effective reporting helps to drive financial and other capitals’ allocations and align markets to long-term sustainable investments.

3.2 Current State of Affairs

Headlines were made following the release of the United Nations’ International Panel on Climate Change (IPCC)’s Sixth Assessment Report (AR6) in August 2021. The report made it abundantly clear that humans are responsible for an unprecedented rate of warming on the planet, stating that the “global surface temperature has warmed faster since 1970 than in any other 50-year period in at least the last 2,000 years.”\(^1\) In the same report, it was acknowledged that atmospheric carbon dioxide (CO₂) concentrations are rising higher and faster than any time in (at least) the past two million years. Responsible for about 85 percent of the CO₂ emissions, the burning of fossil fuels is the largest contributor to this rapid rise.\(^2\)

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1. IPCC 6th Assessment Report: Climate Change 2021
2. The new IPCC climate report is hugely important—and here are 6 main takeaways | (ted.com)
Around the world, extreme weather is on the rise, with observed increases in precipitation activity, while simultaneous observations of increased drought, heatwaves, and fires are also more frequent. Carbon dioxide emissions are what is known as greenhouse gas (GHG), and CO₂ is not the only GHG contributing to a warming planet. Other significant GHG contributors to global warming include methane (CH₄) and nitrous oxide (NO₂), which are largely emitted by fossil fuel and agricultural industries. With net emissions of 16 gigatons of GHG emissions across all types, China is responsible for 20 percent of global emissions.

For China, warmer and wetter weather is expected as climate change continues to influence uncharacteristic weather patterns. By 2050, an estimated $1 trillion to $1.5 trillion in GDP is at risk in an average year due to lost working hours from extreme heat and humidity. Preventing these losses ultimately requires rapid climate action, including reducing GHG emissions through investment in renewable energy production and other green energy infrastructure. The IPCC estimates that the threshold for a “no return” from the warming climate will occur when global temperature rise averages at least 1.5°C - an average expected to be reached by the mid-2030s without decarbonization.³

As we enter a critical era for influential and quick action, governments and businesses around the world are increasingly conscious of their carbon footprints – the amount of carbon emitted from operations – and are implementing legislation and business strategies to reach decarbonization goals. A decade ago, industry guidance for implementing and reporting sustainability in business strategy was nascent. Today, there are several frameworks for disclosing emissions and evaluating how reductions in specific areas of operation impact business goals.

The following sections review several of the most adopted frameworks, why they are influential, how to choose the framework right for your business sector, and how they can help measure progress toward decarbonization goals.

From a physical science perspective, limiting human-induced global warming to a specific level requires limiting cumulative GHG emissions, reaching at least net zero CO₂ emissions, along with strong reductions in other greenhouse gas emissions. (IPCC AR6, Pg. SPM-36)

³ Analysis. What the new IPCC report says about when world may pass 1.5°C and 2°C - Carbon Brief
3.3 Impacts on Business

Besides the most obvious physical risks— for example, the operational impacts of extreme weather events, or supply shortages caused by water scarcity— companies are also exposed to transition risks that arise from society’s response to climate change. These risks can include changes in technologies, markets, and regulations that can increase business costs, undermine the viability of existing products or services, or affect asset values.

Climate change also offers business opportunities. Firstly, companies can improve their resource productivity by increasing energy efficiency, thereby reducing costs. Secondly, climate change can spur innovation, inspiring new products and services that are less carbon-intensive or enable carbon reduction by others. Thirdly, by decreasing reliance on volatile fossil fuel markets and shifting toward renewable energy, companies enhance the resilience of their supply chains. Together, steps like these can invigorate competitiveness and open new market opportunities.4

The table below further outlines the types of climate risks businesses can face and real-world examples of what these risks look like.

<table>
<thead>
<tr>
<th>Type of Risk</th>
<th>Sub-Type of Risk/ Opportunity</th>
<th>Contributors</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical</td>
<td>Acute (event-driven risks)</td>
<td>Extreme Weather</td>
<td>Severe flooding in Henan in July 2021 resulted in a record single-event insurance loss of $1.7 billion, impacting companies that provide property and casualty insurance (CNBC)</td>
</tr>
<tr>
<td></td>
<td>Chronic (long-term risks)</td>
<td>Water Stress</td>
<td>In 2020 Q4 – 2021 Q1, more than 500,000 hectares of arable land were affected by drought, leaving 330,000 people in rural areas without sufficient potable water. Local authorities ordered the water supply to people’s homes be reduced and non-essential businesses that use large quantities of water were told to suspend their operations. (South China Morning Post)</td>
</tr>
<tr>
<td>Transition</td>
<td>Policy</td>
<td>Federal and Local Legislation</td>
<td>Tens of billions of dollars were invested in the “green economy” after the creation of the China Green Bond Market in 2015. (Climate Bonds Report)</td>
</tr>
<tr>
<td></td>
<td>Technology</td>
<td>Increasing Competitiveness of “Green” Technology</td>
<td>In 2021, more than 40 nations, including China, the United Kingdom, the United States, and India, reached an agreement at the COP26 summit in Glasgow, Scotland to align standards and investments to drive down the cost of clean technologies. (The Guardian)</td>
</tr>
<tr>
<td>Liability</td>
<td>Legal</td>
<td>Climate Change Litigation from Activist Groups</td>
<td>In 2020, the Kunming Intermediate People’s Court ordered the construction of a hydropower dam to be halted in Yunnan Province due to to the threat it posed to the endangered Green Peafowl, and its habitat. (CGTN)</td>
</tr>
</tbody>
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4 Deloitte – Feeling the Heat?
4. C-ESG Disclosure Process in China

4.1 China National Policy Support: Carbon and Climate and Regulations

On 28 June 2021, the China Securities Regulatory Commission (CSRC) published the final set of amendments (“Final Amendments”) to the disclosure rules applicable to annual reports and half-year reports, respectively, together with relevant explanations for the amendments (“Explanations”). In the Explanations, the CSRC highlights the following key goals of the revised and updated disclosure rules as they relate to environmental and social responsibility:

- To emphasise a listed company’s role in promoting environmental protection and social responsibility as a public company;
- To require listed companies to disclose any administrative penalties relating to environmental issues during the disclosure reporting period;
- To achieve the goal of “emission peak” (碳达峰) and “carbon neutrality” (碳中和) in China by motivating listed companies to disclose their work to reduce carbon emissions voluntarily; and
- To encourage listed companies to disclose their work in rural areas to alleviate poverty.

“Working guidance for carbon dioxide peaking and carbon neutrality in full and faithful implementation of the new development philosophy” Sept 22 2021

(中共中央国务院关于完整准确全面贯彻新发展理念做好碳达峰碳中和工作的意见)

Policy statement which directly supports the C-ESG practice

(24) Accelerating the development of a green trade system; (25) Promoting the development of green Belt and Road; (26) Strengthening international exchanges and cooperation; (27) Improving laws and regulations; (28) Refining standard and measurement systems; (29) Enhancing statistical and monitoring capacity; (30) Improving investment policies; (31) Actively developing green finance; (32) Improving fiscal, tax and pricing policies; (33) Developing market-based mechanisms.
The Final Regulations could help the ESG-related disclosure for Chinese listed corporations more clear. While disclosures relating to carbon reduction are encouraged on a voluntary basis, listed companies should strongly consider implementing this approach as significant global attention to climate change (particularly considering the pivotal COP26 meeting in November) could spur regulators in China and elsewhere to implement mandatory climate-related disclosures in the near- to mid-term (Lee & Uhrynuk, 2021).

4.2 Stakeholders of the Guiding Document

When determining the parties that directly influence (or are directly influenced by) company operation, we often use two similar and yet wholly distinct terms: “stakeholder” and “shareholder.” It is factually and thematically incorrect to use these terms interchangeably in the business environment.

Because any substantive ESG practice requires a hard look at these parties, it’s vital to define terms.

According to the Corporate Finance Institute (CFI), the “shareholder is a company’s stakeholder while a stakeholder is not necessarily a shareholder. A shareholder is a person who owns an equity stock in the company and therefore holds an ownership stake in the company. On the other hand, a stakeholder is an interested party in the company’s performance for reasons other than capital appreciation.”

There are two spheres of influence to consider – those who directly benefit (or suffer) economically based on the company's performance and those who benefit (or suffer) in any other ways based on the company’s performance. Profitability is of extreme interest to the shareholder; responsibility may be more directly tied to the stakeholder’s interests.

Because Stock Exchanges are hybrid organisations—publicly-traded companies, exchange operators, self-regulated organisations, financial product creator, data stewards—defining one’s circle of stakeholders is difficult. During a materiality assessment, it might be revealed, for example, that institutions and entities such as the ones below (and others) bear upon a business in some meaningful way:

- Listed Companies in China
- Listed Company Investors
- Stock Exchange Investors in China
- Investor Advocacy Groups
- Exchange Regulators
- Other Stock Exchanges
- Market Analysts and Researchers
- Public Policymakers
- NGOs and Reporting Frameworks
- Pre-IPO Companies
- Customers and Suppliers
- Current (and Future) Employees
- Public Communities
Three China stock exchanges: Shanghai Stock Exchange (SSE), Shenzhen Stock Exchange (SZEE), Hong Kong Exchanges and Clearing Limited (HKEX), are partner exchanges of the Sustainable Stock Exchanges (SSEs) initiative, which is a UN Partnership Programme organised by UNCTAD (the UN Conference on Trade and Development), the UN Global Compact, UNEP FI and the PRI. The SSEs' mission is to provide a global platform for exploring how exchanges, in collaboration with investors, companies (issuers), regulators, policymakers and relevant international organisations, can enhance performance on ESG (environmental, social, and corporate governance) issues and encourage sustainable investment, including the financing of the UN Sustainable Development Goals (Sustainable Stock Exchanges Initiative, 2019).

The Securities Association of China (SAC; Chinese: 中国证券业协会), a self-regulatory organization (SRO) for the securities industry under the guidance and supervision of CSRC was founded in Beijing in August 1991. The Shanghai Stock Exchange can surveil the market and set basic rules and regulations such as accepting new listings. However, the China Securities Regulatory Committee must approve if Shanghai Stock Exchange wants to undertake any new regulatory abilities.

In addition to regulatory agencies, stock exchanges also play an essential role in constructing listed companies' environmental information disclosure systems. Stock exchange documentation on environmental information disclosure can be seen as early as May 2008. First, the Shanghai Stock Exchange (hereinafter referred to as the SSE) issued the “About Strengthening the Work of Listed Companies to Undertake Social Responsibilities and Issues Shanghai Stock Exchange Listed Companies Environmental Information Disclosure Guidelines Notice”. This document more comprehensively detailed environmental protection and sustainable development matters that listed companies should disclose. Subsequently, the Shanghai Stock Exchange successively issued the “Guidelines for Compiling the Report on the Performance of Social Responsibilities by Companies”, the “Notice on Further Improving the Information Disclosure of Poverty Alleviation Work by Listed Companies”, the “Shanghai Stock Exchange Science and Technology Innovation Board Stock Listing Rules” and the “Shanghai Securities No. 2 Guidelines for the Application of Self-Regulatory Rules for Listed Companies on the Science and Technology Innovation Board of the Exchange-Voluntary Information Disclosure. These documents have gradually improved the information disclosure system for environmental protection, poverty alleviation, corporate governance, and other listed companies on the Main Board and the Science and Technology Innovation Board and provided common information disclosure standards.

The Shenzhen Stock Exchange (hereinafter referred to as the “SZEE”) also has relatively straightforward rules for disclosing ESG information. In 2020, the Shenzhen Stock Exchange successively issued the “Guidelines for the Normative Operation of Listed Companies on the Shenzhen Stock Exchange (Revised in 2020)”, “Guidelines for the Business Handling of Listed Companies on the Shenzhen Stock Exchange No. 2-Disclosure of Periodic Reports”, and “Shenzhen Stock ExchangeMeasures for the Evaluation of Information Disclosure of Listed Companies (Revised in 2020)”. These documents provide for listed companies' disclosure of environmental information, fulfilment of social responsibilities, and corporate governance-related information, forming a basic framework for ESG information disclosure, keeping pace with the development of ESG information disclosure in major international markets, and helping to improve the performance of listed companies in China. As a result, the ESG rating enhances the international competitiveness of the country's capital market.

The China Securities Regulatory Commission issued corresponding rules: In September 2018, the “Code of Corporate Governance for Listed Companies” revised by the China Securities Regulatory Commission specifically added environmental protection and social responsibility. Article 95 stipulates that listed companies shall comply with laws, regulations and relevant departments’ requirements, disclosure of environmental information and performance of social responsibilities such as poverty alleviation. On 28 June, 2021, the China Securities Regulatory Commission announced the “Guidelines for the Content and Format of Information Disclosure by Companies Offering Securities to the Public No. 2—Content and Format of Annual Reports (Revised in 2021)” and “Content and Format of Information Disclosure by Companies Offering Securities to the Public” Guidelines No. 3—Content and Format of Semi-Annual Reports (Revised in 2021). Compared
with the 2017 revision, the new version lists corporate governance, environmental and social responsibility as a separate chapter and systematically requires companies to disclose ESG information.

The Morgan Stanley Capital International (hereafter referred to as MSCI) China All Shares ESG Universal Index is based on the MSCI China All Shares Index, its parent index, and includes large and mid-cap securities of the Chinese equity markets (MSCI Inc., 2022). The index displays the opportunity set of share classes from China listed in Hong Kong, Shanghai, Shenzhen, and other countries and regions. MSCI (2022) also points out that the index reflects the performance of an investment strategy that, by leaning away from free-float market cap weights, aims to increase their exposure to those companies demonstrating a solid ESG profile as well as trending up in improving that profile, using minimal exclusions from the MSCI China All Shares Index.

<table>
<thead>
<tr>
<th>Robust ESG links to value creation</th>
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<tr>
<td>ESG links to cash flow in five important ways: (1) facilitating top-line growth, (2) reducing costs, (3) minimizing regulatory and legal interventions, (4) increasing employee productivity, and (5) optimizing investment and capital expenditures. Each of these five levers should be part of a leader’s mental checklist when approaching ESG opportunities— and so should be an understanding of the “softer,” more personal dynamics needed for the levers to accomplish their heaviest lifting.</td>
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### 4.3 Green Finance Systems in China

Industry associations and other social organisations pay attention to ESG information disclosure and issue various guidelines and opinions on related investments compared with regulatory agencies and stock exchanges.

In September 2017, the Green Finance Committee of the Chinese Finance Society, the China Investment Association, the China Banking Association, the China Securities Investment Fund Association, the China Insurance Asset Management Association, the China Trust Industry Association, and the Environmental Protection Foreign Cooperation Center of the Ministry of Environmental Protection jointly Initiated the “China Outward Investment Environmental Risk Management Initiative” (hereinafter referred to as the “Initiative”) to Chinese financial institutions and non-financial enterprises participating in foreign investment. It proposed that institutional investors participating in foreign investment should learn from the United Nations Responsible Investment Principles to make investment decisions. Moreover, the initiative stated that ESG factors should be fully considered in the project implementation process.

On 10 November 2018, the China Securities Investment Fund Industry Association officially released the “Research Report on ESG Evaluation System for Listed Companies in China” (hereinafter referred to as the “Research Report”) and the “Green Investment Guidelines (Trial)” (below, hereafter called the “Guidelines”). The “Research Report” builds a core indicator system for measuring ESG performance of listed companies based on the actual and inherent requirements of green development in China’s capital market, which has application value and great significance to investment institutions, listed companies, and regulatory agencies. The “Guidelines” define the connotation of green investment, clarify the objectives, principles, and basic methods of green investment, and are intended to establish a code of conduct for green investment.

The Chinese Academy of Social Sciences has also issued a corresponding reporting guide for corporate social responsibility reports: “Chinese Corporate Social Responsibility Reporting Guidelines 4.0 (CASS-CSR4.0)”. Based on the excellent results of guides 1.0-3.0, it includes the latest social responsibility policies, standards and initiatives as well as the wisdom of colleagues in the field of social responsibility.
4.4 Investor’s Support

For some years, investors, analysts, and service providers – such as rating agencies and research organisations – have been seeking a more comprehensive view of listed companies. External factors that influence enterprise value may not be covered adequately by standard financial reporting. A reporting perspective that goes beyond “mere” financial factors – including environmental, social, and governance (ESG) considerations – enables stakeholders to make more informed assessments about the ability of a company to create and sustain value.

As China’s economy grew and the market became more accessible to international capital, investor interest in the country increased over time. However, many investors continue to have serious concerns about environmental, social, and governance (ESG) challenges in China’s market. A low rate of information disclosure creates difficulties for investors and asset managers to integrate ESG considerations into their investment process for Chinese firms. Nondisclosure and a lack of standardisation on the metrics reported by Chinese companies could lead to an inaccurate assessment of how a firm compares against its domestic and global peers on key ESG issues (Costello & Gan, 2021).

ESG disclosure has expanded in China over the past ten years due to the Chinese government’s emphasis on improvement, fulfilling environmental goals, and promoting ecologically more sustainable economic growth. According to a UNEP FI/PRI (United Nations Environment Programme Finance Initiative) study, the proportion of Shanghai-Shenzhen CSI 300 Index businesses that disclosed ESG data voluntarily through annual sustainability reports nearly doubled from 43% to 82% between 2009 and 2018.

This is partially attributable to China’s markets opening, which has assisted Chinese businesses in realising the advantages of information transparency in bringing in global investment. Furthermore, it complies with government legislative initiatives that promote better disclosure of ESG concerns. For example, The China Securities Regulatory Commission (CSRC) consultations on modified disclosure requirements in yearly and semi-annual reports for Chinese listed enterprises in May 2021. The CSRC has suggested several changes, including a new chapter on environmental and social responsibility that would mandate the publication of any environmental fines and improvements to the present corporate governance chapter that would standardise disclosure and increase transparency.

Note: the text box above uses SSEs to mean Sustainable Stock Exchanges, but in this document SSE is used for Shanghai Stock Exchange.
Section 5 of the new edition of Environmental and Social Responsibility includes three specific requirements. They are:

**Article 41:** A company or its main subsidiary that is a key pollutant discharge unit announced by the environmental protection department shall disclose the following main environmental information in accordance with laws, administrative regulations, departmental rules and regulatory documents: (1) Pollution discharge information. Including but not limited to the name of the main pollutants and characteristic pollutants, the discharge method, the number and distribution of discharge outlets, the discharge concentration and total amount, the discharge exceeding the standard, the implemented pollutant discharge standards, and the total approved discharge. (2) The construction and operation of pollution prevention facilities. (3) Environmental impact assessment of construction projects and other environmental protection administrative permits. (4) Emergency plan for environmental emergencies. (5) Environmental self-monitoring plan. (6) Administrative penalties due to environmental issues during the reporting period. (7) Other environmental information that should be made public.

Companies other than key pollutant-discharging units shall disclose the administrative penalties imposed on environmental issues during the reporting period and may disclose other environmental information in accordance with the above requirements. If other environmental information is not disclosed, the reasons shall be fully explained.

Encourage companies to voluntarily disclose relevant information that is conducive to ecological protection, pollution prevention and environmental responsibilities. Environmental information verification agencies, verification agencies, evaluation agencies, index companies and other third-party agencies that verify, appraise, and evaluate the company's environmental information are encouraged to disclose relevant information.

Encourage companies to voluntarily disclose the measures and effects they have taken to reduce their carbon emissions during the reporting period.

**Article 42:** Encourage companies to actively disclose the work of actively fulfilling social responsibilities in light of the characteristics of the industry, including but not limited to: the company's purpose and philosophy of fulfilling social responsibilities, the protection of the rights and interests of shareholders and creditors, the protection of the rights and interests of employees, suppliers, customers and Consumer rights protection, environmental protection and sustainable development, public relations, and social welfare undertakings. If the company has disclosed the full text of the social responsibility report, it only needs to provide the relevant query index.

**Article 43:** Encourage companies to actively disclose the specific work of consolidating and expanding the results of poverty alleviation and rural revitalization during the reporting period.

### 4.5 Various C-ESG Products to Be Developed

In 2020, China’s C-ESG market saw strong growth and product innovation. The ESG-themed wealth management services of commercial banks and their wealth management subsidiaries increased from zero to more than 40 in several products in just two years. We expect that more types of C-ESG products will come to the market in 2023. Policy support, investors' increasing recognition, and demand from international mandates stay as the main drivers.

### 4.6 Increasing Recognition & Demand from International Mandates Continue to Drive the ESG Market

Specifically, we expect asset management firms to launch more ESG funds across active funds, index funds, Smart Beta funds and bond funds. Banks’ ESG-themed wealth management products will continue their rapid growth. Securities firms will also embrace ESG and develop trusts, REITs, and others. The increase of ESG products will satisfy various needs of ESG
investors. Meanwhile, ESG investment approaches will also be more diversified. We expect that the leading institutions will explore further stewardship and engagement strategies.

Top 10 Trends in Responsible Investment in China

**Trend 1:** ESG investment to support green recovery: China’s 2030 & 2060 carbon targets create huge investment opportunities; In social area, COVID-19 has raised public awareness on health issues.

**Trend 2:** Financial market to address climate change more proactively: Green finance will continue to play a proactive role as an important tool to achieve such transition; with respect to international cooperation, it is expected that China will continue to call on financial regulators and financial markets in various countries to collectively address climate change and share China’s experience through multiple platforms.

**Trend 3:** National carbon market to be launched officially: A national carbon market is on the horizon. Power generation will be the 1st in the pilot.

**Trend 4:** Various ESG products to be developed: The increase of ESG products will be able to satisfy various needs of ESG investors. Meanwhile, ESG investment approaches will also be more diversified.

**Trend 5:** New ESG themes such as blue economy to emerge: In the second half of 2020, Bank of China and China Industrial Bank issued the first blue bonds, and China Industrial Bank and Bank of Qingdao became the first Chinese banks to sign Sustainable Blue Economy Finance Principles hosted by UNEP FI. We expect that more Chinese financial institutions will sign the Principles in 2021 to explore green finance innovation for the blue economy.

**Trend 6:** Domestic asset owners to adopt ESG steadily: There will be more diversified types of AOs that embrace ESG.

**Trend 7:** How to better use ESG data becomes decisive: A better use of ESG data will become crucial, including efficient data collection & processing, in-depth analyses of ESG data.

**Trend 8:** Harmonized standards to facilitate capital in-flow

The lack of standards or inconsistency of standards is an obstacle to ESG investment. Better harmonization of ESG standards between China and overseas markets, and among different domestic regulatory authorities will greatly facilitate ESG development in China.

**Trend 9:** ESG eco-system to take shape

In the past two or three years, ESG professional service providers in China have grown rapidly. In addition to that, international organizations, business associations, credit rating agencies, fin-tech companies, financial media, and many other types of organizations have also continued to increase their attentions and investments in ESG services and shaped an ecosystem for ESG in China together with asset owners, asset managements, corporations and regulators.

**Trend 10:** Academic interest in ESG research to increase

There has been an increasing academic interest in ESG research. Many famous universities in China have established research institutes dedicated to green finance and ESG. Academic institutions will do more ESG related research and articles on ESG-related theories and practices coming out in near future.

(Source: www.chinawaterrisk.org)

4.7 Obstacles in Implementing ESG Policies in China

Although there has been exponential growth in ESG adoption and awareness in China, gaps remain for both companies trying to improve ESG performance and investors trying to integrate ESG into their decisions.
Despite increasing attention from foreign and domestic investors, Chinese companies still lag behind their developed-market peers in ESG disclosures. As more Chinese companies list overseas, foreign investors are paying more attention to how Chinese companies meet international standards, including higher expectations on ESG disclosures. Domestically, investors have also become more ESG aware because of regulatory guidance. However, Chinese companies still lag behind their global peers in the scope and quality of their ESG disclosures. For example, the average Bloomberg ESG disclosure score of CSI 300 companies ranks the lowest among companies of major stock market indices.

Companies are confused about what to disclose because of various guidelines’ differing requirements. CSI 300 companies already follow a total of nine guidelines. Companies also have to respond to different rating providers, which diverge significantly in their frameworks. Without a unified set of guidelines, companies lack clarity on what is the most material information to provide for their shareholders and external rating providers.

Most companies have little to no processes for collecting high-quality ESG data. Manual collection across departments leads to low data quality and time-consuming processes. This is a particular issue for large companies with complex revenue streams and divisional organisational structures. There is also little monitoring and benchmarking with their industry peers and a lack of actionable insights on how to improve.

The ESG ratings and data market is in its early stages in China. Examples of existing gaps include low coverage of companies and slow development of fixed-income data, which has limited the development of more diversified ESG investment products such as passive funds, quantitative funds and investment products for primary markets.\(^5\)

### 4.8 C-ESG Concern and Opportunities

For Chinese companies with a B or CCC rating, an overview of the common issues challenged by the environmental, social, and governance pillars is as follows:

Environmental Pillar: Chinese companies rank lower than their global peers across a broad range of issues, such as carbon emissions and toxic emissions & waste. However, stricter environmental policies have seen incremental positive developments in terms of climate change, as reflected in China’s carbon intensity both at the national level (CO\(_2\) emissions/GDP) and at the corporate level (CO\(_2\) emissions/sales), which have been trending down over the past decade.

Social Pillar: Chinese companies have some of the lowest social-pillar ratings relative to global peers. One area in which Chinese companies received a heavier penalty is privacy & data, indicating lower privacy and internal data security management systems and higher occurrence of data breaches and/or privacy-related controversies. In addition, lower health & safety scores reflect a higher risk of health and safety accidents that can lead to production disruptions, litigation, and liabilities.

Governance Pillar: In terms of corporate governance, Chinese companies generally scored lower when it comes to board and pay. One of the concerns relating to board performance is independence, as many companies lack an independent majority of board members (55% for MSCI China Index versus 33% for the MSCI ACWI constituents). This issue is compounded if the company has a controlling shareholder, which is the case for many of the state-owned companies and founder-led firms in China, as it reduces the influence of minority shareholders. A main issue regarding pay was the lack of executive pay disclosure, with 59% of the companies in the MSCI China Index flagged versus 37% in the MSCI ACWI.


\(^5\) A new green wave of ESG investment is breaking in China | World Economic Forum (weforum.org)
5. Frameworks & Standards

5.1 TCFD Principles

The Financial Stability Board (FSB) is an international body that monitors and makes recommendations about the global financial system. In 2015 it established the Task Force on Climate-Related Financial Disclosures (TCFD) to develop recommendations for more effective climate-related disclosures. TCFD consists of 32 members from across the G20, representing both preparers and users of financial disclosures.

The TCFD’s disclosure recommendations, released in 2017, are structured around four thematic areas related to organizations’ operations: governance, strategy, risk management, and metrics and targets. These recommendations are voluntary and are in place as guidelines to assist businesses in identifying and sharing risks and opportunities they face due to climate change.

The recommendations are designed to be adoptable by all organizations and strongly focus on risks and opportunities related to transitioning to a lower-carbon economy.

The table below provides detail on each core element, as well as expected disclosures for each.

<table>
<thead>
<tr>
<th>Governance</th>
<th>Strategy</th>
<th>Risk Management</th>
<th>Metrics &amp; Targets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disclose the organization’s governance around climate-related risks and opportunities.</td>
<td>Disclose the actual and potential impacts of climate-related risks and opportunities on the organization’s businesses, strategy and financial planning where such information is material.</td>
<td>Disclose how the organization identifies, assesses, and manages climate-related risks.</td>
<td>Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.</td>
</tr>
</tbody>
</table>

Recommended Disclosures

- (a) Describe the boards oversight of climate-related risks and opportunities.
- (b) Describe management’s role in assessing and managing climate-related risks and opportunities.
- (c) Describe the resilience of the organization’s strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.

Source and edit from: TCFD, 2017
The TCFD also developed supplemental guidance for both financial and non-financial sectors. Non-financial sector guidance primarily focuses on sectors with significant GHG emissions, energy usage, and water usage.

TCFD and Financial Regulation:

- The long timeframes involved in climate change, and the transition to a low-carbon economy, mean that the private interests of financial firms and investors may not align well with the best interests of society.
- This is a potential market failure to which financial regulators around the world are increasingly responding by incorporating climate risks into how they monitor and manage their domestic financial sectors.
- The International Association of Insurance Supervisors (IAIS), Basel, International Accounting Standards (IAS), and Prudential Regulation Authority (UK) incorporate sustainability and climate risk into regulations and connect activities to TCFD and NGFS (The Network of Central Banks and Supervisors for Greening the Financial System).

- Opportunities for supervision and enforcement.
- Opportunities for macroprudential tools.
- Opportunities for learning, evolving and collaborating across stakeholders.
- Opportunities for developing greener financial markets and mainstreaming green financing.

5.2 CDP

The Carbon Disclosure Project (CDP) is a not-for-profit charity that runs the global carbon disclosure system for investors, companies, cities, states and regions to support these entities in reporting their global greenhouse gas emissions and managing their environmental impacts.

All of the data collected by the CDP is self-reported. A CDP report is a separate questionnaire from any current filings or reports, and must be completed on the CDP platform. Companies can self-disclose or are asked to disclose via a request from an investor, customer, or both.

The method for reporting in accordance with the TCFD recommendations is provided by CDP’s disclosure platform. The TCFD Framework can be applied in the real world thanks to CDP’s ability to translate the guidelines and pillars of the TCFD into concrete disclosure questions and a standardised annual format. The CDP (2022) points out Companies which disclose through CDP are doing so in line with the TCFD recommendations, in a comparable and consistent way that is relevant and accessible to the global economy.

As a result, CDP has the largest TCFD-aligned environmental database in the world, and CDP scores are widely used to drive investment and procurement decisions towards a zero carbon, sustainable and resilient economy (CDP, 2022).

CDP operates in most major economies worldwide and channels information and progress through different modules. These modules, to which investors can make specific requests on, are:

1. Climate Change: This questionnaire prompts a company to examine the risks and opportunities climate change poses to its business, disclose how this is incorporated within a company’s management and strategy, and measure a company’s direct and indirect greenhouse gas emissions.
2. **Water:** The water questionnaire provides a clear framework for companies to identify and manage water-related risks and opportunities effectively. Responding demonstrates accountability and transparency to key stakeholders and that the business is taking positive steps to manage its impacts on water resources.

3. **Forests:** The CDP provides the only platform companies can disclose regarding the four commodities most responsible for deforestation globally: timber products, palm oil, cattle products and soy. The questionnaire asks for information on risks, traceability, governance, commitments, standards, targets and engagement along the supply chain.

### 5.3 Climate Disclosure Standards Board

The CDSB Framework helps companies to provide investors with decision-useful environmental information via mainstream corporate reports, enhancing the efficient allocation of financial capital in support of sustainable and climate-resilient economies. CDSB does this by offering companies the CDSB Framework for reporting natural capital and environmental information with the same rigour as financial information.

Regulators also benefit from the compliance-ready materials that CDSB produces. The CDSB Framework comprises 7 guiding principles and 12 reporting requirements (REQ). These set out the how and the what for reporting relevant and material environmental and climate-related information in mainstream annual reports. The 7 principles and 12 requirements are listed in the table below. In addition, each principle and requirement have further sub metrics that provide additional disclosure instructions.

<table>
<thead>
<tr>
<th>Guiding Principles</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1: Environmental information shall be prepared applying the principles of relevance and materiality</td>
<td>REQ-01 Governance</td>
</tr>
<tr>
<td>P2: Disclosures shall be faithfully represented</td>
<td>REQ-02 Management’s environmental policies, strategy and targets</td>
</tr>
<tr>
<td>P3: Disclosures shall be connected with other information in the mainstream report</td>
<td>REQ-03 Risks and opportunities</td>
</tr>
<tr>
<td>P4: Disclosures shall be consistent and comparable</td>
<td>REQ-04 Sources of environmental impact</td>
</tr>
<tr>
<td>P5: Disclosures shall be clear and understandable</td>
<td>REQ-05 Performance and comparative analysis</td>
</tr>
<tr>
<td>P6: Disclosures shall be verifiable</td>
<td>REQ-06 Outlook</td>
</tr>
<tr>
<td>P7: Disclosures shall be forward-looking</td>
<td>REQ-07 Organisational boundary</td>
</tr>
</tbody>
</table>

### 5.4 Global Reporting Initiative (GRI)

GRI Standards aim to create a typical dialogue for organizations and businesses to report their climate, environmental, social, and governance (C-ESG) impacts. GRI Standards are industry-agnostic and can be applied to organizations across different industries. However, organizations may omit certain disclosures if the information does not substantively influence stakeholders’ assessments or reflect significant economic, environmental, and social impacts.
Reports aligned with GRI Standards are generally produced as a stand-alone report or integrated within a broader sustainability report. These reports should provide information in response to the individual GRI disclosures and topic-specific standards.

There are two options for producing reports with GRI: Core or Comprehensive. The Core option requires organizations to include only General Standard Disclosures, the Disclosure on Management Approach (DMA), and at least one relevant Indicator related to each identified material issue. The Comprehensive option builds on the Core option by including additional disclosures on strategy, ethics and integrity, and governance. The organization is also required to report more extensively on its impacts by reporting all the topic-specific disclosures for each material topic.

GRI Standards are broken down into two main areas: Universal Standards and Topic-specific Standards. The requirements of the universal standards are outlined below:

<table>
<thead>
<tr>
<th>GRI 100 Series (Universal Standards)</th>
<th>The Universal Standards provide guidance and reporting requirements relating to how to use the Standards, contextual information, and reporting how material topics are managed.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• GRI 101 – Reporting Principles for defining report content and quality, and requirements for preparing a report in accordance with GRI</td>
</tr>
<tr>
<td></td>
<td>• GRI 102 – Contextual information about an organization's profile and its reporting practices</td>
</tr>
<tr>
<td></td>
<td>• GRI 103 – Narrative explanation for each material topic explaining materiality, impacts, and management</td>
</tr>
</tbody>
</table>

**Overview of GRI principles and requirements**

1. **Accuracy**: The organization shall report information that is correct and sufficiently detailed to allow an assessment of the organization's impacts.

2. **Balance**: The organization shall report information in an unbiased way and provide a fair representation of the organization's negative and positive impacts.

3. **Clarity**: The organization shall present information in a way that is accessible and understandable.

4. **Comparability**: The organization shall select, compile, and report information consistently to enable an analysis of changes in the organization's impacts over time and an analysis of these impacts relative to those of other organizations.

5. **Completeness**: The organization shall provide sufficient information to enable an assessment of the organization's impacts during the reporting period.

6. **Sustainability context**: The organization shall report information about its impacts in the wider context of sustainable development.

7. **Timeliness**: The organization shall report information on a regular schedule and make it available in time for information users to make decisions.

8. **Verifiability**: The organization shall gather, record, compile, and analyze information in such a way that the information can be examined to establish its quality.

Source: GRI Standards 2021: GRI 1: Foundation 2021
5.5 ISO Standards

ISO 14001 Standard

ISO 14001 is an internationally agreed standard that sets out the requirements for an environmental management system. It specifies a process for controlling and continuously improving an organization's environmental performance. The management tool enables an organization to identify and control the environmental impact of its activities, products and services; continuously improve its environmental performance; and implement a systematic approach to set and achieve environmental objectives and targets.

Eight out of 17 UN SDGs directly link to the focus of ISO 14001, such as those related to clean water and sanitation; affordable and clean energy; decent work and economic growth; industry, innovation and infrastructure; responsible consumption and production; climate action; life below water; and life on land (ISO, 2016).

ISO 14001 environmental management systems are the world's most recognized and developed environmental management systems.

With organizations becoming more aware of their environmental impact, many want to manage and control their risks. By implementing an ISO 14001 EMS, they are formalizing this process and gaining recognition for their actions. ISO 14001 benefits to an organization can be significant.

The Elements of ISO 14001

Within the standard, numerous elements of ISO 14001 are required to be met by organizations seeking formal recognition for their EMS. General requirements include:

1. Development of an environmental policy that reflects an organization's commitments;
2. The appointment of a person(s) responsible for the EMS's coordination;
3. Identification of how the organization interacts with the environment;
4. Identification of actual and potential environmental impacts;
5. Identification of environmental compliance requirements;
6. Establishment of environmental objectives, targets and programs;
7. Monitoring and measurement of the progress to achieve its objectives;
8. Reviewing the system and environmental performance; and
9. Continuous improvement of the organization's environmental performance.

The standard can be easily integrated into existing safety (AS/NZS 4801 or ISO 450001) and quality (AS/NZS, ISO 9001) management systems. (ISO 14001 REQUIREMENTS)
5.6 SASB and IIRC

The Sustainability Accounting Standards Board (SASB) and the IIRC (International Integrated Reporting Council) have formed the Value Reporting Foundation, which provides a comprehensive suite of tools to assess, manage and communicate value through integrated reporting.

SASB identifies the subset of environmental, social, and governance issues most relevant to financial performance in each of 77 industries. These were designed to help companies disclose financial-material sustainability information to investors.

Companies use SASB Standards to disclose financially material sustainability information in annual reports, such as regulatory filings, integrated reports, sustainability reports, or stand-alone SASB reports. SASB Standards are industry specific and arranged by SASB’s Sustainable Industry Classification System (SICS). Generally, companies disclosing information using SASB Standards need to use the standard for their specific industry and sector.

Each company disclosing using SASB Standards is generally designated under one sector and industry. The standard is further broken down into Sustainability Dimensions, General Issue Categories, Disclosure Topics, and accounting Metrics, as shown below.

![Structure of the SASB standards](image)

The information that needs to be collected are the various accounting metrics within each disclosure topic. While General Issue Categories are industry-agnostic and are applied to several industries, Disclosure Topics are industry-specific. These quantitative and qualitative metrics measure performance and allow for comparability between companies.

SASB metrics are designed to complement existing metrics within each industry and utilize industry standard language. They are additionally tied to specific value impacts such that they can be incorporated into analytical tools and investment analysis.
5.7 GHG Protocol

The Greenhouse Gas (GHG) Protocol was created to develop internationally accepted standards for businesses on GHG accounting and reporting and to promote broad adoption (The World Business Council for Sustainable Development, 2004). The World Business Council for Sustainable Development (WBCSD) also displayed that the standard is widely used around the world and covers the accounting and reporting of seven greenhouse gases covered by the Kyoto Protocol to help businesses, universities, non-government organizations (NGOs), governments and other entities measure and report GHG emissions that are contributing to global warming including:

- carbon dioxide (CO$_2$)
- methane (CH$_4$)
- nitrous oxide (N$_2$O)
- hydrofluorocarbons (HFCs)
- perfluorocarbons (PCFs)
- sulphur hexafluoride (SF$_6$)
- nitrogen trifluoride (NF$_3$)

GHG accounting requires information from the following activities:

- Select/define an approach for organizational boundaries
- Select/define an approach for operational boundaries
- Track emissions over time
- Identifying and calculating GHG Emissions

According to the above information from GHG Accounting and Reporting Principles, a third party should be able to derive the same results if provided with the same source data. Internal reviewers and outside verifiers should be able to verify the information’s accuracy after it has been produced and analysed. Specific exclusions or inclusions need to be clearly identified and justified, assumptions disclosed, and appropriate references provided for the methodologies applied and the data sources used (Open Risk Manual, 2021).

5.8 Sustainable Development Goals (SDG)

In 2015 The United Nations released 17 sustainable development goals (SDGs) to be achieved by 2030. The goals are meant to “be a blueprint to achieve a better and more sustainable future for all” (The Institute of International Exchange, 2021). These 17 goals are interlinked and cover many fields, from ending poverty to reducing inequality and creating sustainable cities and communities. While the SDGs can be split into three categories- economic, environmental, and social- they were interlinked so that communities can improve all aspects of their lives rather than focusing on just one.

From a sustainability standpoint, the SDGs allow companies and countries to focus on their environmental performance and protect the environment from harm through a commitment to proactive initiatives. The SDGs can also aid in environmental management, by placing emphasis on the planning processes and seeing how local, regional, or global environmental conditions can affect the organization. With the creation of SDGs, companies and countries now have a basic framework to measure their progress and goals, with a set timeline to complete these targets.
5.9 UN Global Compact Annual Communication on Progress (CoP)

The UN Global Compact is the world’s largest global corporate sustainability initiative, with more than 16,000 participating companies, and 3,800 non-business participants have already embraced its commitments (United Nations Global Compact, 2021). The UN Global Compact (2021) summarises its ten Principles of the UN, are in following:

**Principle 1**: Businesses should support and respect the protection of internationally proclaimed human rights; and

**Principle 2**: make sure that they are not complicit in human rights abuses.
**Principle 3:** Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;

**Principle 4:** the elimination of all forms of forced and compulsory labour;

**Principle 5:** the effective abolition of child labour; and

**Principle 6:** the elimination of discrimination in respect of employment and occupation

**Principle 7:** Businesses should support a precautionary approach to environmental challenges;

**Principle 8:** undertake initiatives to promote greater environmental responsibility; and

**Principle 9:** encourage the development and diffusion of environmentally friendly technologies

**Principle 10:** Businesses should work against corruption in all its forms, including extortion and bribery.

To **join** the UN Global Compact as a part of the world’s largest global corporate sustainability initiative, the applicants must voluntarily pledge to:

- Take actions that support the society around them
- Commit to the effort from the organization’s highest level, pushing sustainability deep into the DNA
- Report annually on ongoing efforts
- Engage locally where the business has a presence (United Nations Global Compact, 2021).

A company’s commitment to the United Nations Global Compact is based on submitting an annual Communication on Progress (CoP), which delivers useful information to stakeholders. According to the United Nations Global Compact, CoPs can be prepared in any language as long as they comply with the minimal requirements and the general framework of a CoP is flexible. Because the participants are all at different stages in their sustainability journeys, CoPs are categorized into three differentiation levels based on the depth of their disclosure. We also collaborate with other frameworks — for example, the Global Reporting Initiative (GRI) — to ensure that the standards are aligned and that meeting the requirements of one framework helps to comply with the others (United Nations Global Compact, 2021).
6. Preparing for Disclosure

There are multiple factors to consider when preparing to disclose environment and client-related data. The steps below outline best practices of how a company should prepare for disclosure and which this guide will cover.

It is important to ensure there is buy-in from top leadership and management when deciding to implement a C-ESG strategy and integrate C-ESG into company disclosure reports. Leadership buy-in is critical in ensuring both company-wide and system-wide changes – without it, a C-ESG strategy can be dismissed as “greenwashing” (when a company commits to sustainability in word or public relations only). Leadership buy-in can result from external stakeholder pressure, internal company demand, or both. The obstacles outlined in the next section should also be considered when obtaining leadership commitment, especially in China.

6.1 Types of Guidance

After obtaining leadership buy-in for C-ESG disclosure, the next step that a company should consider is deciding what guidance to use to report. C-ESG guidance are system for standardizing the reporting and disclosure of C-ESG metrics. They are often voluntary but may be required by certain investors or regulations in some countries. These frameworks are put together by nonprofit organizations, NGOs, business groups, and others.

6.2 “Principle-Based Frameworks” vs. “Standards”

A principles-based framework is a set of concepts for how information is structured and prepared and what broad topics are covered. These generally provide high-level guidance, such as the principles that should underpin the preparation of a report and what content the organization should look to include. Generally, they do not suggest detailed disclosure topics or indicators. For example, a principles-based framework may suggest that organizations report on human capital and provide general guidance on what this information could entail, but it does not prescribe specific human capital disclosures or indicators.

‘Standards’ are a set of specific, replicable, and detailed guidance for what a company should disclose. They explain what metrics a company should report on. Because standards require information to be reported in a specific way, and often using a specific methodology, they allow for an apples-to-apples comparison between different reports. Independent third-party auditors typically look to standards when performing audits.

The existing frameworks and standards complement each other and often work for hand in hand: standards can take the general guidance in frameworks from principle to practice.
6.3 Environmental Management System (EMS)

Complete and accurate C-ESG reporting is underpinned by solid organisational practices and management systems, such as an Environmental Management System (EMS). An EMS is a set of processes created by companies to help cost-effectively achieve environmental goals, and supports organizations that desire to disclose their C-ESG practices by providing a foundation for a company's broader C-ESG strategy. An EMS is also considered an organizational framework designed to meet regulatory standards.

As recommended by the U.S. Environmental Protection Agency (EPA), listed below are some basic elements of an EMS:

- Reviewing the organization's environmental goals;
- Analyzing its environmental impacts and legal requirements;
- Setting environmental objectives and targets to reduce environmental impacts and comply with legal requirements;
- Establishing programs to meet these objectives and targets;
- Monitoring and measuring progress in achieving the objectives;
- Ensuring employees' environmental awareness and competence.

6.4 Scenario Analysis

Scenario analysis has been used by businesses since the 1970s to inform their strategy and for stress testing purposes.

Scenario analysis is a well-established tool used by business for the following reasons:

- It provides a holistic view of the various possibilities that the future can offer.
- It allows a better analysis of the circumstances and evolutions of the different future states being explored.
- It provides a logical and transparent process to manage and communicate complex issues.
- Scenario analysis assists in better planning and establishing action plans. Trigger points can be used in deploying strategy in a more meaningful way.
- It allows businesses to stress-test their current strategy against various future outcomes and allows more rapid responses in case of future shocks.
- It can aid capital allocation by testing portfolios of assets and investment opportunities and identifying weaknesses. Fundamentally, scenario analysis allows organizations to test their current strategies against a set of scenarios, which allows them to develop contingency plans in response to possible future risks and opportunities.

6.5 The Top-down Approach to Establish Overall Scope

The Board Should Show Sustainability Leadership

It is the board’s responsibility to define and control key topics and key performance indicators (KPIs) that reflect its economic, environmental, social and governance impacts. This means that senior management needs to set the sustainability agenda and make sure that line organisations understand and embrace the goals that have been set and the targets that have been agreed upon. A proof point may be whether a board member can explain sustainability data and their business implications in a one-on-one situation.
**Concentrate on a Handful of Key Indicators**

Companies should concentrate on a small number of management accounting / financial control measures in their reporting. These should be relevant to management, linked to the corporate strategy, and illustrate the impact of C-ESG drivers on the company's financial results. A clear description should also back them up. Management's consideration and/or prioritisation of the KPIs will highlight the company's unique selling points.

As with any strategy, the first step is to identify clear, measurable outcomes that define what success means to the organisation.

This step is meant to establish a clear definition of sustainability and C-ESG for the organisation. Then the level of interest in these efforts across the organisation should be determined. Understanding the current mindset will define the level of appetite at the start of this initiative, guide your strategy to encourage engagement across your organisation, and give you an idea of the results you will be able to achieve.

**6.6 Things to Consider**

- Consider investors, shareholders, peers, owners, and joint-venture partners
- Identify the current C-ESG challenges, financial targets, and timeframe for implementation
- Determine the value of the effort
- Define success; what are the performance-based targets?
- Evaluate the long-term strategy

A company's support for C-ESG issues doesn't come from a report, but from its strategy. However, the reporting is crucial to communicating how that strategy will be implemented. Companies typically start C-ESG disclosure with a stakeholder materiality assessment.

In the assessment, a company engages with all its stakeholders to understand what is most important to them and how those priorities align to its business. Following that, the company will need to define its metrics, goals, targets, and a reporting standard to follow.

The sustainability or C-ESG standards and frameworks are helpful to provide comparability across companies but measuring a different set of indicators internally to track performance is entirely appropriate.

Another consideration during this phase is how and where this information will be reported.

**Create a Budget**

To develop a realistic budget, the organisation would comprehend its funding preferences and align them with the objectives and timescales set in Step 1.

- How much is the organisation willing to spend? Can it get funding?
- What is the organisation's tolerance level for ROI? Does the business require a financial return within a year? Three years? Ten years? What is the most valuable? How did the organisation respond in Step 1 to the question, “What are businesses' drives for ROI?” Is the organisation's primary focus on lowering energy costs? Is the company pursuing certifications or ratings?

Lastly, consider the availability of your team.
We reference from Conservice ESG (2022) to provide more detail on this element in Step 5: Build a Sustainability Team, but the gist is this: if building a dedicated in-house team to work on these initiatives isn’t feasible, an organisation can hire a consultant to keep progress on track. Some additional considerations when creating a budget include:

**Implementation of Capital Improvements to Drive Future Savings**

- Energy audits to determine what potential improvements are available and what ROI they could deliver.
- Determine the value both in terms of cost perspective and improvements that might be seen with benchmarking (e.g. ENERGY STAR score) (Conservice ESG, 2022).
- The availability of a team to track, document, and maintain C-ESG initiatives and disclosure projects.

CSR and sustainability reporting cater for the needs of many stakeholders with differing requirements and expectations in terms of topics, format and granularity of data. As a subset of the general sustainability audience, investors and financial analysts are economic stakeholders with distinct needs and expectations:

- Investors / analysts are primarily interested in those material C-ESG factors, i.e. which significantly impact the company’s value.
- Materiality is defined as risks (e.g. penalties, lawsuits, reputation) and opportunities (products, markets, geographies).
- The format and granularity of data need to consider investors’ specific use of information. It should be similar in format, quality and presentation to financial data: a small number of material KPIs; if possible, quantified – and ideally monetised – in tabular format rather than in prose style.

### 6.7 A Quick Start Guide to C-ESG Standards

Far from a buzzword, C-ESG is fast becoming the standard for businesses to manage and report on their risks. C-ESG is essentially the broadest set of factors that can measure a company’s impact in the world. For example, how is a business impacting the environment, deforestation, pollution and climate change? On the social front, how are they supporting communities? This includes both their employees, through health and safety measures and diversity, and the wider society they operate in. And on governance, how well is the company run, how diverse is its board, does it have anti-corruption policies and suitable management structures?

C-ESG reporting and ratings drive a vast and growing amount of investment. C-ESG is much like corporate social responsibility but on a vastly more extensive and more measurable scale. As a result, companies that are at the forefront of talking about their C-ESG scores are generating more attention from across the business spectrum, and investors are actively looking for high C-ESG scoring companies.

Deciding to start C-ESG scoring can seem like a daunting task. But in fact, compliance dovetails into C-ESG reporting in a significant way. For example, training on bribery and tax evasion is critical in reducing the risk of a governance failure. In addition, diversity audits and progressive HR policies can help with the social side of the score, and even something as simple as a well-implemented recycling policy can make a difference when it comes to measuring your environmental impact.

Using a particular C-ESG framework can help to guide your reporting processes, showing you where to look, what to measure, and how to communicate it. Here, we break down the key reporting frameworks for C-ESG.
7. Design and Implementation

7.1 Communicate Effective Risk Management and Mitigation

Companies can better predict impending hazards and manage them when they appear by paying attention to material issues for various stakeholders.

Hence, as a regular component of business and risk culture, controlling environmental, social, or operational risk should be a fundamental part of corporate operations. Because of this, systems and policies ought to be in place during all operations.

The cost of external funding can be decreased while performance can be improved through responsible business practices. Conversely, an adverse C-ESG-related event can indicate more than a protracted period of poor performance and increased external funding expenses. However, it can result in reputational harm, call for senior management changes, boost regulatory activity, or even a takeover. A business is responsible when it is ready to evaluate and manage its effects on society and the environment. In addition, more transparency boosts investors' confidence and benefits valuations, among other connections between solid governance and a perspective of value performance. Many unfavourable strategy mistakes, such as costly acquisitions, inadequate diversification, management short-termism, etc., can be avoided with top management's adoption of a responsible and results-based culture and tighter Board oversight.

7.2 Communicate Sustainability-related Business Opportunities

Companies must deal with various complex business trends, such as the depletion of natural resources, new laws, and the effects of innovation and new technology. These call for alternative approaches, leading to inventive goods and services that address societal problems and may, thus, serve as the foundation for future development. These eco-related inventions may have special selling points, and they should be promoted as such.

A company's industry positioning and return on capital are improved, among other things, by effectively managing environmental, social, and corporate governance challenges. In order to maintain competitiveness in the future, sustainability practices are consequently becoming crucial.

7.3 Highlight Measures to Reduce Risks and Leverage Opportunities

Actions taken to improve performance are crucial to measuring the prospective improvement in the company's returns over the short, medium, and long term. Such actions include meeting customer needs, boosting product innovation, luring and keeping skilled workers, raising productivity, lowering environmental impacts, protecting scarce natural resources, and globally implementing recognised ethical labour standards along the value chain. An anti-corruption policy, whistleblower programs, positive employee relations, monitoring the value chain for important environmental and social issues, etc., are just a few of the policies, training programs, and activities aimed at reducing risks that may result in lower debt costs and higher credit ratings.

Overall, improved risk/return profiles and higher firm valuations should result from improved performance, greater returns, lower risks, and lower cost of capital. Capital providers evaluate an investment's attractiveness on the management's
Towards a Climate and ESG Disclosure Guidance for Companies in China

7.4 Give Preference to Quantitative Data

The ability to compare quantitative data with comparable data from other organisations makes it better than qualitative data. The presentation of sustainability-related statistics should, whenever possible, follow that of traditional financial data. To give concrete, unbiased, numerical facts, issuers should attempt to “simplify” reality while keeping in mind that when discussing sustainability as an investment topic, the language of the financial markets should be utilised. Investors and analysts with sustainability focus value charts or tables that display the company's C-ESG performance. If appropriate, this should be supplemented by a narrative explanation of why specific KPIs grew or dropped, whether this is a positive or bad thing, and a prediction of future performance. Try to keep this narrative as brief and straightforward as you can. Working with qualitative data must occasionally be done. A qualitative narrative should always be supported by quantitative facts, benchmarks, and aims.

7.5 Be as Specific as Possible

Metrics that quantify the economic effect, measure company opportunities and risks, and are open about the calculation process are thought to be the most helpful in corporate sustainability reporting.

Information on mitigating measures or initiatives intended to take advantage of new opportunities will also be an alternate option to improve disclosure if a company deals with other problems that are more challenging to assess.

Some sustainability projects are long-term investments on the part of the organisation, and it may be challenging to quantify their financial impact right once.

The commercial case for sustainability always exists, though it can be investigated by connecting the financial (fundamental) perspective with the C-ESG perspective and vice versa. Whenever possible, describe the relationship between financial performance and C-ESG performance.

7.6 Define Specific Measurable C-ESG Targets

Companies should specify quantifiable goals for their material subjects in their yearly reporting using absolute data (such as total tonnes of CO₂ produced annually) and ratios (such as kilos of CO₂ per passenger kilometre). Additionally, targets connect the economic aspect of sustainability with the C-ESG concept (e.g., sustainability-related products as a percentage of total sales). Generally speaking, sustainability goals should be aligned with the long-term business plan and demonstrate a direct connection to maximising shareholder value. To strengthen the credibility of the targets, it is ideal that companies integrate relevant sustainability metrics into management compensation systems.

Targets can’t always be accomplished in reality. So that a full evaluation of an organisation's entire performance can be made, reporting should include both good and negative aspects of performance in terms of sustainability.
The best way for an organization’s emissions goals to be taken seriously, is to set them using science as an indicator of their potential effectiveness and impact. Science-based targets (SBTs) lend credibility to an organization and its climate strategy claims. When organizations utilize SBTs, accusations of “greenwashing”, or the dissemination of false information presenting an organization as environmentally responsible, can be avoided. Science-based targets can also be important business drivers by enhancing the organization’s reputation with so-called “activist investors”, business resiliency, regulatory uncertainty, technological innovation, and new market opportunities.

The Science-Based Target Initiative (SBTi) defines and promotes best practice in science-based target setting. Targets are considered ‘science-based’ if they are in line with what the latest climate science deems necessary to meet the goals of the Paris Agreement – limiting global warming to well-below 2°C above pre-industrial levels and pursuing efforts to limit warming to 1.5°C.

In order for a company to be recognized by the SBTi, the SBTi outlines the following steps to setting a science-based target:

- **Commit**: submit a letter establishing intent to set a science-based target
- **Develop**: work on an emissions reduction target in line with the SBTi’s criteria
- **Submit**: present target to the SBTi for official validation
- **Communicate**: announce target and inform your stakeholders
- **Disclose**: report company-wide emissions and track target progress annually

Businesses who sign the SBTi commitment letter are immediately recognized as “Committed” on the SBTi website. Committed companies have 24 months to have their targets approved and published by the SBTi, or they will be removed from the SBTi website, unless specific circumstances apply.

Targets submitted to the SBTi first go through an initial screening to ensure basic criteria are met. Once a target submission passes the initial screening, companies will be asked to sign the target validation service contract. Once signed, the SBTi will assess the submitted targets and communicate its decision within 30 business days of contract execution.

Science-based targets are currently validated against SBTi Criteria V4.1: a company must meet all listed criteria in order for target(s) to be recognized by the SBTi. In addition, companies must follow the GHG Protocol Corporate Standard, Scope 2 Guidance, and Corporate Value Chain (Scope 3) Accounting and Reporting Standard.

General criteria includes reporting requirements on GHG emissions inventory and target boundaries, timeframes, level of company ambition, and specific guidance on collecting information and reporting on Scope 1, Scope 2, and Scope 3 emissions.
### GhG Emissions Inventory and Target Boundary

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Definition</th>
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<tbody>
<tr>
<td>• Identifying significant thresholds</td>
<td></td>
</tr>
<tr>
<td>• Ensuring targets cover all relevant GhGs required by GHG Protocol</td>
<td></td>
</tr>
<tr>
<td>• Reporting emissions from bioenergy use</td>
<td></td>
</tr>
<tr>
<td>• Consideration of subsidiaries</td>
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### Timeframe

<table>
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<tr>
<th>Criteria</th>
<th>Definition</th>
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</thead>
<tbody>
<tr>
<td>• Defining base target and years</td>
<td></td>
</tr>
<tr>
<td>• Describing progress to date. Note that targets that have already been achieved by the date they are submitted to the SBTi are not acceptable.</td>
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### Ambition

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Definition</th>
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</thead>
<tbody>
<tr>
<td>• Level of ambition: At a minimum, scope 1 and scope 2 targets must be consistent with the level of decarbonization required to keep global temperature increase to well-below 2°C compared to preindustrial temperatures</td>
<td></td>
</tr>
<tr>
<td>• Absolute vs intensity targets</td>
<td></td>
</tr>
<tr>
<td>• Method validity</td>
<td></td>
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<tr>
<td>• Combined scope targets</td>
<td></td>
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<tr>
<td>• Offsets and avoided emissions</td>
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### Scope 1 & 2

<table>
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<tr>
<th>Criteria</th>
<th>Definition</th>
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<tbody>
<tr>
<td>• Approach: Companies shall disclose whether they are using a location- or market-based approach</td>
<td></td>
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<tr>
<td>• Consideration of renewable electricity</td>
<td></td>
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### Scope 3

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<tr>
<th>Criteria</th>
<th>Definition</th>
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</thead>
<tbody>
<tr>
<td>• Must complete screening for all relevant scope 3 categories</td>
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<tr>
<td>• Required to have a scope 3 target if a company's relevant scope 3 emissions are 40% or more of total scope 1, 2, and 3 emissions</td>
<td></td>
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</tbody>
</table>

There are also sector-specific requirements for certain industries, with more being developed. Companies must follow requirements for target setting and minimum ambition levels as indicated in relevant sector-specific methods and guidance at the latest, 6 months after the sector guidance publication.

### 7.6 Provide an Outlook and Talk about Challenges and Opportunities

Investors are interested in historical results and potential outcomes, particularly regarding expected business trends and how companies will handle impending obstacles. As a result, reporting must include metrics for future sustainability. In addition, investors also expect companies to provide information on how they intend to maintain and increase value over the medium to long term concerning their company strategy. Companies should attempt to evaluate the impact of their industry and market developments on the future of their sustainability performance as part of this activity. Companies should be transparent about the risks involved in achieving their sustainability goals. A definition of the risks and how they are handled and mitigated should be included.

### 7.7 Build on Widely Acknowledged Frameworks

As they support the capital market perspective, the seven recommendations in this manual are generally relevant to any current standard. Hence, the guide explains how to make better use of the current reporting standards, guidelines, and frameworks. There are numerous governing sustainability reporting standards available on the market, and businesses must choose the one(s) that best suit their needs. Because of this, there is now some lack of comparability. On the positive side, this gives businesses much freedom. However, it is helpful to build on internationally or nationally recognised standards to make reported KPIs similar and feasible to assist investor assessment.
8. Materiality Assessment

The concept of materiality guides companies’ decisions about what information is appropriate to disclose. It provides a framework through which companies can differentiate information that should be disclosed from what is not necessary.

Materiality assessments are formal exercises that engage stakeholders to understand how they perceive and prioritize specific climate, environmental, social, and governance (C-ESG) issues. Stakeholder needs and impact to the business are used to determine which C-ESG impacts are most significant to the business. The insights gained from this exercise can then be used to guide C-ESG strategy and communication.

Typical steps in conducting a Materiality Assessment typically include:

8.1 Identify and Engage Internal and External Stakeholders

Materiality assessments are most valuable when a company is able to gather diverse insights from internal and external perspectives and from different stakeholder groups. Key contacts should be identified within each stakeholder group. Internal perspectives include executive leadership, directors, regional managers, and employees. External perspectives include trade associations, key customers, NGOs, and investors.

Once identified, key contacts need to be engaged in the materiality process. They should be told why they are being engaged, and what the company’s objective with this exercise is.

8.2 Define Metrics

Even before identifying and engaging with stakeholders, it is important for a company to determine what sustainability indicators and metrics it will want to consider including in its materiality assessment. These metrics will not necessarily be all the metrics that are presented to stakeholders for evaluation, but rather are metrics the company considers important, and may want to get additional insight on.

Sustainability metrics can include:

- Economic (e.g., revenue, profit, company turnover)
- Social (e.g., labor statistics, human rights, consumer issues, community impact)
- Change to Climatic and Environmental (e.g., water stewardship, greenhouse gas emissions, waste management)

A company can use already collected data, past or initial insights from stakeholders, media research, or publicly available resources such as the guidance explained above to determine which metrics and indicators are most relevant to the business.

8.3 Gathering Information

A company can gather information from key stakeholders in multiple ways, including through verbal interviews, surveys, or both. Traditional surveys can make gathering and comparing information easier, as these are more structured and quantifiable than interviews.
The survey should ask stakeholders to rate the importance and impact of different indicators on a numeric scale. This provides quantitative data that can be analyzed and explained visually. Quantitative results can be paired with free-text responses to enable respondents to provide more detailed written insights and feedback. Companies can consider investing in software that can streamline collection and reporting, or utilize surveying tools such as Survey Monkey or Typeform.

### 8.4 Analyse Insights

Once all stakeholders have been engaged, either through a survey or other methods, the company should review results collectively and determine how best to feature the data (e.g. internal versus external answers). Below are a few examples of how some companies have presented the results of their materiality assessments:

![Materiality matrix](https://www.coca-cola.com/en/a-more-sustainable-future/our-approach/materiality)


8.5 Taking Action

The results of a materiality assessment are typically reported either externally, internally, or both. All stakeholders who were engaged for the assessment should be informed of its results. In addition, a company can publish its results as part of other regular reporting initiatives (sustainability reports, etc.) or as its own separate report.

Conducting a materiality assessment is one of the first steps a company can take to develop its sustainability strategy. It helps a company understand what issues are critical for its stakeholders and its business, and where to focus resources and actions.
9. How and Where to Report

Companies can disclose data through various channels, including annual reports and integrated reports, regulatory filings, annual sustainability reports, or as stand-alone reports. While it is usually up to the company's discretion on how and where to conduct its disclosures, some guidance, such as the GHG Protocol, require a separate report.

9.1 Stand-alone C-ESG Report

- GRI Standards are commonly used for developing a separate sustainability report serving the needs of multiple stakeholders, including customers, investors, employees, communities, policymakers and NGOs.
- Some organisations that prepare GRI-based sustainability reports include a Sustainability Accounting Standards Board (SASB) reference table in the sustainability report, so that investors can easily find the information suggested by the Sustainability Accounting Standards.
- Many organisations find the data that they collect for the Carbon Disclosure Project (CDP) disclosure can be re-purposed for their sustainability reports and vice versa.

9.2 Integrated C-ESG/Annual Report

- For a comprehensive report that addresses both financial/ business performance and sustainability performance/ impacts, each framework and standard can be used in combination with the financial reporting requirements.
- The International Integrated Reporting Framework by the Value Reporting Foundation addresses multiple capitals and can be used as a guide on how to report on multiple values created. It could therefore be used as a basis for a comprehensive report targeting multiple audiences. Then, the CDSB Framework (Climate Disclosure Standards Board) can be used as a guide on how to report material climate and environmental information in the annual report. The SASB Standards provide guidance for reporting on financially material sustainability topics by providing specific disclosures and metrics. The CDP framework sets out what information is relevant in this regard for climate change, water security, and forests. The GRI Standards provide detailed guidance for 33 sustainability topics and their economic, social and environmental impacts. Companies can also use the guidance on actions and expectations for the conduct of organisations provided in ISO 26000 to disclose relevant sustainability topics in the annual report.
- If a company decides to issue a common annual report (based on applicable regulations) instead of using the International Framework, the frameworks and standards of CDP, CDSB, SASB, GRI, and ISO can still be used in the same manner as described above.

9.3 Sustainability Financial Impact on Annual Report

- The sustainability frameworks and standards designed solely for communication of financially material issues to investors are CDSB and SASB. Both of these are aligned with conventional financial reporting. They can be used together: CDSB explains how and what to report on climate-related and other environmental issues through the mainstream annual report, and SASB provides indicators (metrics) for financially material sustainability topics for 77 industries.
• GRI selected disclosures can be used as part of the annual report to express performance on key sustainability topics. This is common practice in a rising number of jurisdictions.

• Likewise, CDP disclosures are requested by investors and data collected for a CDP disclosure is used by investors to assess the financial materiality of sustainability issues and can be used for an annual report. As desired, the more detailed information in a CDP disclosure can be referred to in the annual report.

9.4 Climate Change Risks & Opportunities and the Paris Agreement

• The TCFD recommendations address the financial risks and opportunities from climate change. The frameworks and standards mentioned below fit well with the TCFD recommendations and thus can be used to build a report that conforms with the TCFD recommended disclosures.

• As the global disclosure platform for corporate environmental data, climate-related risks and opportunities information can be provided directly to CDP via the online response system. For progress against the Paris Agreement, it is designed to enable the aggregation of GHG emission data across sectors and indices, and also allows companies to report on progress against science-based GHG emissions targets.

• For reporting on sustainability risks/opportunities related to financial performance, the CDSB Framework and SASB Standards are specifically designed to serve this purpose in the organisation’s mainstream report. They can be used together: the CDSB Framework explains how and what environmental and climate issues to report on in a mainstream annual report, and the SASB Standards provide metrics for financially material sustainability topics. For GHG emissions, the CDSB Framework advises that all companies disclose Scope 1 and 2 emissions and disclose Scope 3 emissions where financially material.

• For reporting on progress related to the Paris Agreement, the CDP questionnaires and GRI Standards are recommended; specifically targets and metrics indicators regarding Scope 1, 2, and 3 GHG emissions. To report on an organisation’s actions in this regard, CDP, GRI Standard 10.3 and ISO 26000 provide guidance for management actions that an be used to disclose.
10. Practices of Using the Guidelines

10.1 Practice Guidance by Regions

Main reason for adopting ESG, by region

<table>
<thead>
<tr>
<th></th>
<th>North America</th>
<th>Asia-Pacific</th>
<th>Europe</th>
</tr>
</thead>
<tbody>
<tr>
<td>A desire to meet client needs and requests</td>
<td>41%</td>
<td>26%</td>
<td>31%</td>
</tr>
<tr>
<td>A desire to do good / make an impact / make the world a better place</td>
<td>24%</td>
<td>23%</td>
<td>25%</td>
</tr>
<tr>
<td>A desire to improve our reputation / Fear of reputational harm</td>
<td>6%</td>
<td>11%</td>
<td>11%</td>
</tr>
<tr>
<td>A desire to improve performance</td>
<td>12%</td>
<td>12%</td>
<td>7%</td>
</tr>
<tr>
<td>Peer pressure / Industry standards</td>
<td>5%</td>
<td>15%</td>
<td>7%</td>
</tr>
<tr>
<td>A desire to enhance risk management</td>
<td>9%</td>
<td>5%</td>
<td>10%</td>
</tr>
<tr>
<td>Regulatory pressure / Fear of failing foul of regulations</td>
<td>2%</td>
<td>7%</td>
<td>8%</td>
</tr>
</tbody>
</table>


The policy priority of the Chinese Government is now evolving from brute-force economic expansion to more inclusive and environmentally-sustainable growth. The latest Five-Year Plan announced in March 2021 situates social welfare and green development at its core. Given the state’s power to translate these wishes into actions, all companies see heightened risk and opportunity. Domestic investors are still grappling with this transition and how they should position themselves. We suspect that a recent migration of capital from retail to institutional investors will be an important ingredient for improving capital markets’ sophistication and long-term mindedness. To conclude, we flag several insights when adapting a C-ESG approach to China. These include prioritising political risk, localising frameworks and building up local networks.

10.2 Guiding Best Practices and Tactics

The following guiding principles and best practices are for drafting and preparing effective C-ESG disclosures and for the review of existing disclosures and practices:

- **Only include essential information:** They should consider their current disclosure requirements when determining the length of any C-ESG-focused disclosures to minimise redundant information and information overload for investors.
• **Prominently display a summary of key information:** To help less experienced investors make decisions, any specific information regarding a fund or portfolio should be supplied in a disclosure’s body and be preceded by a summary of the most important details at the document’s beginning. To avoid overwhelming investors with information, drop-down menus or hyperlinks that allow them to select the portions they are most interested in reading are helpful.

• **Ensure communications are consistent:** To ensure compliance with the C-ESG core principles on client communications, C-ESG is consistent in the detailed drafting of the disclosures and its approach to C-ESG more generally. Additionally, rather than just occurring when the pertinent communications have been made, “disclosure should be constant across time,” around the time the relevant communications have been made.

• **Increasing disclosure uniformity:** Disclosures should be standardised to the greatest extent possible to facilitate comparisons. The disclosure could include utilising some of the characteristics of other industry templates to aid in comparison.

• **Embedding C-ESG information into existing disclosure requirements:** C-ESG disclosures should be well-integrated into a manager’s existing regulations and documentation. The SEC’s advisory C-ESG Subcommittee also emphasises the importance of properly integrating C-ESG disclosures into existing disclosures.

• **Data integrity:** The information used and disclosed to investors must be reliable. The Financial Conduct Authority (FCA) is concerned that investee companies’ C-ESG information is frequently incomplete and difficult to compare across corporates,” and as a result, managers rely on C-ESG ratings issued by rating agencies to evaluate investment opportunities.

• **Continuous performance reporting and transparency:** Investors should be given verifiable and objective sustainability targets. Furthermore, ongoing performance reporting should be completed on a timely basis, for example, including such information in the annual report to investors.

### 10.3 The Top-down Approach to Establish Overall Scope

#### 10.3.1 The Board Should Lead the Sustainability

The board is in charge of defining and managing major issues and key performance indicators (KPIs) that account for the implications on the economy, the environment, society, and governance. Senior management must establish the sustainability plan and ensure that line organisations are aware of and supportive of the specified objectives. A board member’s capacity to articulate sustainability statistics and their commercial consequences in a one-on-one setting might serve as proof.

#### 10.3.2 Focus on Key Indicators

Companies should focus their reporting on key management accounting/financial control measures. These should be pertinent to management, related to corporate strategy, and show how C-ESG drivers affect the business’s bottom line. The management will highlight the company’s distinctive selling qualities by taking into account and/or prioritising the KPIs.

As with any plan, the first step is to set specific, quantifiable outcomes that express what organisational success looks like.
This step aims to provide the organisation with a precise definition of sustainability and C-ESG. To start, though, it’s necessary to gauge how much the organisation as a whole is interested in these efforts. Recognising the existing mindset can help determine the level of demand for this campaign at the outset, inform the engagement promotion strategy, and give a sense of the outcomes to expect.

10.4 C-ESG Ratings

A company’s objectives when presenting its C-ESG information will affect the scope and level of assurance they seek from their auditor. The types of services may include:

**Examination** – the auditor provides an independent opinion as to whether the C-ESG information is reported in accordance with certain agreed-upon criteria. This type of service is considered the closest equivalent to the reasonable assurance statement made by an auditor in a typical audit.

**Review** – the auditor concludes whether material modifications should be made to the C-ESG information so that it is reported following agreed-upon criteria. Review engagements are less in scope than an examination engagement and provide limited assurance.

A company’s long-term exposure to C-ESG risks and how well it manages them compared to industry peers are measured and evaluated by C-ESG ratings.

Although there are numerous providers in this field, there is no set industry standard or method for determining a C-ESG rating. Instead, each source of ratings uses a unique set of evaluation criteria and has a wide range of methodology, breadth, and coverage. The C-ESG rankings for the same organisation can differ greatly because each rating provider uses a unique methodology to assess a company’s C-ESG exposure and performance.

Companies that measure and rate C-ESG performance include but are not limited to: (i) Bloomberg C-ESG Data Services; (ii) Dow Jones Sustainability Index; (iii) MSCI ESG Research; (iv) Sustainalytics; (v) Thomson Reuters C-ESG Research Data; (vi) S&P Global; (v) ISS C-ESG; (vi) Vigeo/EIRIS; (vi) Fitch Ratings; and (vii) Moody’s Investors Service.

These companies have established criteria for measuring C-ESG performance based on the aggregation of numerous data points from various places, such as securities filings, voluntary disclosures (including on company websites), governmental databases, academic information, and media sources. In addition, data published by non-governmental organisations (NGOs), such as the Global Reporting Initiative, the Sustainability Accounting Standards Board (SASB), the Carbon Disclosure Project, and the UN Sustainable Development Goals, which collect C-ESG data from participating companies, are a significant source of information for the majority of rating providers.

While their internal C-ESG credit review process may differ, each of S&P, Moody’s and Fitch claims to be committed to establishing a transparent and systematic integration of C-ESG criteria into their respective credit review process.
11. The Future of C-ESG Reporting

11.1 Globally

Due to the piecemeal provisions of voluntary disclosures so far and the limited data they provide on the financial impacts of climate change, regulators, central banks and ratings agencies face increasing pressure to use compulsory and binding climate risk disclosure frameworks. Mandatory reporting requirements for organisations could improve the quality of C-ESG disclosure by reducing informational or data gaps. Mandatory C-ESG disclosure would result in more consistent and comparable disclosures and could prevent attempts at ‘greenwashing’ or making unsubstantiated claims about C-ESG risks and opportunities.

11.1.1 Regulatory

Deloitte (2021) points out TCDF has become part of the regulatory framework in many jurisdictions, including the European Union, Singapore, Canada, Japan, and South Africa. New Zealand and the United Kingdom are mandating climate risk disclosures in line with the TCFD by 2023 and 2025 respectively. This is part of the growing efforts to address global climate change thoroughly. Pressure on businesses to act on the TCFD’s recommendations is only increasing with time (Deloitte, 2021).

11.1.2 Private

Stock exchanges can consider new voluntary and mandatory listing requirements, taking into account climate change and natural capital-related risks and opportunities. Examples include the Dow Jones S&P Index.

Some private investors use their initiative to effect change in jurisdictions where regulatory guidance has been thin. For example, in the United States, BlackRock is the world’s largest asset manager and requests climate-related risk disclosure from all its investee companies to be aligned with TCFD. It holds board members directly accountable for reporting. Case in point, BlackRock issued a statement voting against Exxon Mobil directors for not taking sufficient action on TCFD-aligned risk disclosure. State Street Global Advisors have also signalled that they would take voting action against investees with poor sustainability ratings that do not improve, based on SSGA’s proprietary R-Factor rating, including climate-related risk.

11.1.3 Harmonized Frameworks & Language

Whether mandated or not, climate-related reporting has come under criticism for its lack of standardisation of language and principles, making it difficult to compare disclosures. Voluntary reporting frameworks remain the only guidance in the absence of mandates. In September 2020, several reporting standards organisations, including CDSB, SASB, CDP, GRI and IIRC, jointly committed to aligning their sustainability reporting requirements (CDP, 2020a), building on CDP’s work with CDSB to integrate the recommendations of the TCFD (CDP, 2020b). This is beneficial as they form the basis of voluntary reporting for global financial firms.

A need to create an agreed and shared language and taxonomy between the frameworks and standards is recognised by the C-ESG reporting landscape community. Harmonisation of the disclosure principles of the various frameworks and standards has been proposed by both C-ESG data preparers and users. Harmonising, where possible, the language and underlying concepts of the frameworks and standards would enable the reuse and repurposing of information and give companies greater clarity of C-ESG disclosure expectations.
11.1.4 Understanding the Financial Value of C-ESG Impacts

ESG information and financials have historically been treated separately at most organisations, often with an added separation of departments or functions. With the growing understanding of the financial impacts of C-ESG risks and opportunities, in part due to initiatives such as the TCFD, this may change. Existing frameworks and standards can be insufficient in helping organisations understand and report on the financial implications of C-ESG risks and opportunities.

11.1.5 Scenario Analysis / Stress Testing

Many frameworks and entities agreed on the need for increased adoption of Scenario Analysis and forward-looking financial metrics in the disclosure of climate-related risks and opportunities to plan for resiliency. Forward-looking financial metrics include implied temperature rise, climate value-at-risk, and portfolio alignment estimates, and also a broader range of metrics that include measures of emissions, carbon intensity, environmental resources, and screening criteria.

Tools available to financial institutions that wish to use scenario analysis to reinforce their climate-related risk assessments and disclosures have developed and expanded rapidly. TCFD’s 2019 Status Report states scenario analysis remains far from commonplace aside from larger, more climate-aware institutions in leading countries.

Despite widespread support of scenario analysis, as of September 2020, of the 739 financial institutions that signed up as supporters of the recommendations of the TCFD (Smith, 2021)(Mitchell et al, 2020), very few financial firms are actively disclosing. Institutions that do disclose scenario analysis have not been able to follow harmonised standards. There are some difficulties inaccessing robust, high-quality data and scenarios and this has compromised the quality and usefulness of some disclosures (Smith, 2021).

11.1.6 Sector-Specific Guidance

The C-ESG reporting landscape community agrees that more attention is required on sector-specific reporting. Sectoral reporting can be a means of achieving specificity and improved intra-sectoral comparability.

11.1.7 Integrated Reporting

There is a need for better articulation of the financial value of C-ESG impacts within the reporting community. Frameworks like CDSB and IIRC aim to clarify how C-ESG information can be integrated into mainstream reporting and how C-ESG information links to financial information.

11.2 Environmental Policies in China/JiangSu

11.2.1 National Regulation

China began enforcing the Kigali Amendment of the Montreal Protocol on September 15, 2021. The Amendment aims to phase down the use of hydrofluorocarbons (HFCs) – refrigerants used in air conditioners, refrigeration equipment and foam insulation\(^6\). HFCs are man-made greenhouse gases with global warming potentials (GWP)s tens of thousands of times that of CO\(_2\). Limits on HFC production in China will begin in 2024, with production targets to fall to 90% of the 2020-2022

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\(^6\) Kigali Amendment bolsters China’s efforts to protect ozone layer – China Development Brief
baseline by 2029, 70% by 2035, 50% by 2040, and 20% by 2045. With its nationally determined contribution (NDC), China has committed to achieving its CO\textsubscript{2} emissions target and a transformation to a climate-friendly economy by 2030. The Jiangsu region is seeking to achieve this target even earlier, but to do so it needs support in planning integrated energy systems. The focus of the project is on consulting services for integrated, innovative energy systems, particularly with regard to energy and material flows, increased energy efficiency and renewable energies.

In January 2002, China Securities Regulatory Commission issued *Code of Corporate Governance for Listed Companies*. This regulation clarified the range of information disclosed by public companies. In June 2021, the newest amendment made the social responsibilities and environmental protection their own section and mandate the information disclosure of 1) Waste material disposal, 2) The building and maintenance of the pollution prevention facilities, 3) Environmental impact analysis, 4) Environmental emergency response plan and 5) Measures for environmental self-monitoring system. Companies need to disclose this information annually in their annual report.

In August 2016, seven national departments including The People's Bank of China, The Ministry of Finance, National Development and Reform Commission, The Ministry of Environment Protection, China Banking Regulatory Commission, China Securities Regulatory Commission and China Insurance Regulatory Commission joined forces and established *Building a Green Financial System [Effective]*. In this guidance, companies were provided a clear path of C-ESG disclosure.

In 2019, Shanghai Stock Exchange had published *Rules of the Shanghai Stock Exchange Governing Review of the Issuance and Listing of Stocks on the Sci-tech Innovation Board*, this regulation first clarified the requirement for the mandate C-ESG disclosure.

In November 2020, *Shenzhen Special Economic Zone Green Finance Regulations* were promulgated. This is the first regulation in green finance, which also made Shenzhen a pilot for requiring companies to provide environmental information by law.

### 11.2.2 Local Regulations

Chinese regulatory goal of mandatory disclosures for listed companies by the end of 2020 was delayed due to the pandemic. However, president Xi has announced China's goal to be carbon-neutral by 2060, which will further fuel the transition to a low-carbon economy. In terms of demand, foreign investors who invest in Chinese assets have to meet domicile standards on C-ESG when investing in China, driving improved reporting by Chinese firms.

*(China's Jiangsu Province cracks down on chemical industry (acs.org))* New chemical industrial parks and new chemical plants outside existing parks will be banned, as will expansions and renovations in parks lacking adequate environmental infrastructure and good safety records. The rules also restrict 13 types of chemical projects and prohibit 18 others. The regulations will also force industry consolidation. Many types of plants with small capacities or older technologies must be eliminated, while expansions and renovations are limited to existing chemical parks. That combination will weed out smaller and weaker firms.

In October 2020, Bank of Jiangsu took the lead in launching Customer C-ESG Rating System in the domestic banking sector.
industry. This will help promote the embedding of corporate C-ESG performance as a non-financial indicator into customer credit review and run through the whole process of credit business.

In August 2021, the country’s first “C-ESG performance-linked loan” was launched, and the Bank of Jiangsu issued a loan of 30 million RMB to support the construction of the “Guishan Yunchuang Cultural Tourism Town Science Museum Project” in Xuzhou.

In November 2021, People’s Bank of China Nanjing Branch joined force with related government departments issued Guiding Opinions on Vigorously Developing Green Finance (a.k.a. 30 Articles of Green Finance) https://www.chinacace.org/news/fieldsview?id=13057. The guidance encourages the local governing departments to set up standards for C-ESG disclosure for finance institutions (Article 7), and sets the goal of building a C-ESG disclosure system (Article 25).

On 28 June 2021, the China Securities Regulatory Commission published revised versions of the information disclosure rules relating to annual and half-year reports for listed companies, which were updated from their 2017 versions. The revised information disclosure rules took effect on the same day.10

In terms of disclosure obligations, the 2021 rules introduce a mandatory disclosure obligation on environmental penalties for all listed companies. A number of items whose disclosure is encouraged on a voluntary basis is also stated in the 2021 rules, which is similar to the approach taken in 2017 rules. The 2021 rules also have a standalone section 5 (articles 41 to 43) for information disclosure relating to environmental and social responsibilities, covering the former articles 42 to 44 of the 2017 rules.

All listed companies are now required to disclose any administrative penalties relating to environmental issues received during the reporting period in their annual reports. The “key polluting entities” are however under more stringent disclosure obligations to disclose additional environmental information, including pollution discharge and the status of pollution control facilities. In addition, disclosure of any actions to reduce carbon emissions is now stated as “encouraged” due to China’s general promotion of low carbon transition.

### 11.2.3 Mandatory Disclosure

According to article 41 of the 2021 rules, certain “key polluting entities” determined by the environmental authorities are obliged to disclose the following information in their annual reports:

1. Pollutant discharge information, including but not limited to the name of the major pollutants and characteristic pollutants, way of discharge, number and location of discharge outlets, concentration and total amount of discharged pollutants, occasions of discharging exceeding the required limits, applicable pollutant discharge standards, and total amount of approved discharge of pollutants;
2. The construction and operation of pollution prevention and control facilities;
3. Environmental impact assessment of the projects and other environmental protection administrative permits;
4. Emergency response plan for environmental emergencies;
5. Environmental self-monitoring plan;
6. Administrative penalties due to environmental issues during the reporting period;

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10 China Refines ESG Disclosure Rules for Listed Companies | Convent US Law
7. Other environmental information should be made public.

Among the above, item (6) on environmental administrative penalty is a new requirement introduced by the 2021 rules. Such disclosure is mandatory for all listed companies, whether or not they are “key polluting entities”. Listed companies which are not key polluting entities are not obliged to disclose on other items, but should state sufficient reasons for nondisclosure.

11.2.4 Voluntary Disclosure

The 2021 rules contain a number of items for which disclosure is encouraged but not mandated, including the following:

- Information relating to the promotion of environmental protection, prevention and control of pollution, and any actions to perform environmental responsibilities;
- Information on the measures taken to reduce carbon emissions during the reporting period and the effects of these measures;
- Information relating to the fulfilment of social responsibilities, including but not limited to the company’s mission and ideology of fulfilling social responsibility, the protection of the rights and interests of shareholders, creditors, employees, suppliers, customers and consumers, environmental protection and sustainable development, public relations and social welfare;
- Information relating to actions taken to strengthen the achievements of poverty alleviation and development in rural areas during the reporting period.

11.2.5 Corporate Governance Disclosure

The 2021 rules contain a revised corporate governance section consolidating all corporate governance provisions in Section 4. The rules now require disclosure of any shares with special voting rights and subsequent changes to such arrangement. They also make a number of improvements to existing disclosure requirements, such as on the disclosure of the members of Board special committees and meeting details, measures to guarantee the company’s independence from its controlling shareholder and actual controlling person and any potential conflict of interests.¹¹

11.2.6 Anticipating and Overcoming Stakeholder Resistance

Audiences interested in company sustainability information can include a wide range of stakeholders, including local and international investors, asset managers, local communities and the public. While international asset managers have welcomed a proposal by China’s regulator to enhance listed firms’ environment and social and governance disclosures, they have consistently called for more detailed guidance on C-ESG reporting. However, this sentiment is not echoed to the same degree by local investors or companies. The discrepancy between international and local expectations and requirements, combined with evolving local guidance, can be an obstacle in implementing uniform C-ESG policies.

¹¹ China Refines ESG Disclosure Rules For Listed Companies | Conventus Law
12. Pitfalls in Implementing C-ESG Reporting Need to Be Avoided

12.1 Excessive Focus on Ratings

Corporates could make the mistake of putting C-ESG reporting in the area of communications and public relations strategy. PR cannot substitute for a robust strategy and risk management system that addresses material risks. If the investors and stakeholders can’t see the tangible actions on C-ESG, the PR efforts could be labelled as ‘greenwashing’. Focusing on the PR and not on planned actions on C-ESG issues, the company remains exposed to significant risks.

12.2 Taking C-ESG as a Public Relations or Communication Strategy

Corporates could make the mistake of putting the C-ESG reporting in the area of communications and public relations strategy. PR cannot substitute for a robust strategy and risk management system that addresses material risks. If the investors and stakeholders can’t see the tangible actions on C-ESG, the PR efforts could be labelled as ‘greenwashing’. Focusing on the PR and not on the plan and act on C-ESG issues, the company remains exposed to significant risks.

12.3 Lack of Board and Management Oversight

The C-ESG strategy needs to be positioned as a fundamental component of the organisation’s vision and values. Therefore, the board and senior management need to oversee and drive C-ESG strategy development and integrate it with the overall business strategy and planning. However, some companies’ leaders may leave the C-ESG responsibilities to individuals or departments within the firm without the oversight of the board and senior management or coordination; therefore, they lose the opportunities C-ESG could bring to their companies.

12.4 Disconnect With Business Strategy and Planning

A C-ESG reporting, and disclosure cannot be separated from the business strategy and planning. If the C-ESG reporting process is not connected to strategic objectives and plans, it fails to serve its purpose. Such disconnects may stem from a misunderstanding about the purpose of the C-ESG strategy, lack of board and management overseeing, or a failure to conduct a substantial materiality assessment.

12.5 Compliance-oriented Reporting Approach

Compliance-oriented reporting may indicate a reluctance to go above and beyond the minimum requirements of the reporting. Some companies may report their C-ESG indicators or actions by making passive references to compliance with C-ESG related rules, regulations, and laws.

Companies could proactively establish C-ESG plans or actions that exceed requirements, and they could position themselves as a good citizen in the C-ESG realm. It is becoming critical for companies to report their C-ESG practices transparently and thoroughly in jurisdictions with robust rules and regulations. Otherwise, their stakeholders or the public may question if the company operates at a high standard.
12.6 Inconsistencies Across the Firm

If a large international company does not have a companywide C-ESG reporting strategy and lacks coordination, the operations in disparate jurisdictions in different countries, geographical locations, or business segments may adopt different frameworks and standards in different divisions, leaving significant gaps with potential exposures to C-ESG risks. In such instances, companies should map their policies across business divisions and geographies and harmonise efforts to address material risks to produce a consistent reporting strategy.

12.7 Lack of Assessment and Monitoring

Data collection and information gathering to monitor performance on key C-ESG issues could be a significant challenge for companies in the C-ESG programs and disclosure practice. Effective monitoring and evaluation is the critical component of the C-ESG reporting and disclosure. The appropriate data and information collection for monitoring and evaluation may take significant effort at the beginning. However, once the data collection mechanisms and methodologies are set up, such a process can become helpful in a successful C-ESG strategy and across the whole business. The monitoring and evaluation process should be continuous to adjust the whole system to achieve business sustainability.
13. Example of Disclosures Reports

The examples below illustrate how international companies conduct their C-ESG disclosures. As can be seen, companies often use a combination of different guidance to report their information – there is no one size fits all.

13.1 Toyota: TCFD Framework

Toyota is a Japan-based global automotive manufacturer. Toyota’s environmental policies and reports are in a separate section of its website (https://global.toyota/en/sustainability/tcfd/). Toyota primarily uses the TCFD framework to base its current and future goals. As of 2020, Toyota set 3 challenges for themselves, the Toyota Environmental Challenge 2050, the 2030 Milestone challenge, and the 2025 Target challenge. Based on the TCFD guidelines, Toyota found nine climate-related risks to focus on and set all future actions and goals to revolve around these risks. Below is a detailed segment of Toyota’s environmental action plan, according to TCFD metrics and targets a&c.c.

13.2 Merck: Standalone Report, GRI and SASB

Merck is an American global pharmaceutical company. Merck’s environmental report was a standalone climate, environmental, social, and governance (C-ESG) progress report meant to supplement their SDG index report. Merck uses GRI and SASB frameworks for C-ESG reporting. Merck reports on four key areas: access to health, employees, environment, and ethics and values. Below is an example of Merck using the GRI guidelines to direct their goals and internal operations.

13.3 JetBlue: SASB, TCFD

JetBlue is a major American airline, and the seventh largest airline company in North America. JetBlue published a standalone C-ESG report as well, focused on using SASB and TCFD frameworks. JetBlue’s report also features an independent third-party assurance statement to verify their data. In their report JetBlue has narrowed down the top seven risks to focus on for 2030 and mapped out short (1 – 5 years), medium (5 – 10 years), and long term (10-20 years) plans to mitigate risks. As seen below the report shows which SASB codes and TCFD recommendations are being followed.

13.4 Nike: Standalone, SASB

Nike is an American multinational corporation that develops and manufactures footwear and apparel. Nike produced a standalone sustainability report, following SASB standards. Nike sets C-ESG targets every five years, their current report showcases the progress made for their goals for 2020, as well as their new targets for 2025, focusing on people, planet and play (or community). Nike’s report also has a third-party assurance report. Shown below are the timeline and SASB reporting standards Nike uses.
## Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>AR6</td>
<td>United Nations' International Panel on Climate Change's Sixth Assessment Report</td>
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<tr>
<td>CASS-CSR4.0</td>
<td>Chinese Corporate Social Responsibility Reporting Guidelines 4.0</td>
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<tr>
<td>CDP</td>
<td>Carbon Disclosure Project</td>
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<tr>
<td>CDSB</td>
<td>Climate Disclosure Standards Board</td>
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<tr>
<td>C-ESG</td>
<td>Climate and Environmental, Social, and Governance</td>
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<tr>
<td>CFI</td>
<td>Corporate Finance Institute</td>
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<tr>
<td>CH4</td>
<td>Methane</td>
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<tr>
<td>CO2</td>
<td>Carbon dioxide</td>
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<tr>
<td>CoP</td>
<td>UN Global Compact Annual Communication on Progress</td>
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<tr>
<td>COVID-19</td>
<td>Coronavirus Disease 2019</td>
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<tr>
<td>CSI300</td>
<td>An indicator of the performance of Chinese stock markets. It includes the top 300 stocks traded on the Shanghai Stock Exchange and the Shenzhen Stock Exchange.</td>
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<td>CSR</td>
<td>Corporate Social Responsibility</td>
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<td>CSRC</td>
<td>China Securities Regulatory Commission</td>
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<td>DMA</td>
<td>Disclosure on Management Approach (DMA)</td>
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<td>DNA</td>
<td>Deoxyribonucleic acid</td>
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<tr>
<td>EMS</td>
<td>Environmental Management System</td>
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<tr>
<td>EPA</td>
<td>Environmental Protection Agency</td>
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<td>ESG</td>
<td>Environmental, Social, and Governance</td>
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<tr>
<td>FSB</td>
<td>Financial Stability Board</td>
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<td>GHG</td>
<td>Greenhouse gas (GHG)</td>
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<td>GRI</td>
<td>Global Reporting Initiative</td>
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<td>GWPs</td>
<td>Global warming potentials</td>
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<tr>
<td>G20</td>
<td>Group of Twenty, including 19 countries (Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, South Korea, Mexico, Russia, Saudi Arabia, Turkey, United Kingdom, United States) and EU</td>
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<td>HFCs</td>
<td>Hydrofluorocarbons</td>
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<td>The International Association of Insurance Supervisors</td>
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<td>International Accounting Standards</td>
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<td>International Integrated Reporting Council</td>
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<td>United Nations' International Panel on Climate Change</td>
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<td>ISO</td>
<td>International Organization for Standardization</td>
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<td>MSCI</td>
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<td>MSCI ACWI</td>
<td>Morgan Stanley Capital International All Country World Index</td>
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<td>NDC</td>
<td>Nationally Determined Contributions</td>
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<td>Abbreviation</td>
<td>Full Form</td>
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<td>NF3</td>
<td>Nitrogen Trifluoride</td>
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<td>NGFS</td>
<td>The Network of Central Banks and Supervisors for Greening the Financial System</td>
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<td>Nitrous Oxide</td>
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<td>PCFs</td>
<td>Perfluorocarbons</td>
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<td>The UN Principles for Responsible Investment</td>
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<td>REQ</td>
<td>Requirements</td>
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<td>Real Estate Investment Trust</td>
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<td>Sustainability Accounting Standards Board</td>
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<td>SBTi</td>
<td>Science-Based Target Initiative</td>
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<td>SDG</td>
<td>The UN Sustainable Development Goals</td>
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<td>SF6</td>
<td>Sulphur hexafluoride</td>
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<td>SICS</td>
<td>Sustainable Industry Classification System</td>
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<td>Shanghai Stock Exchange</td>
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<td>The Sustainable Stock Exchanges</td>
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<td>TCFD</td>
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<td>UNCTAD</td>
<td>The UN Conference on Trade and Development</td>
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<td>UNEP FI</td>
<td>The United Nations Environment Programme Finance Initiative</td>
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