



**World Investment  
Report 2025**

Chapter III

# Sustainable finance trends



**United  
Nations**

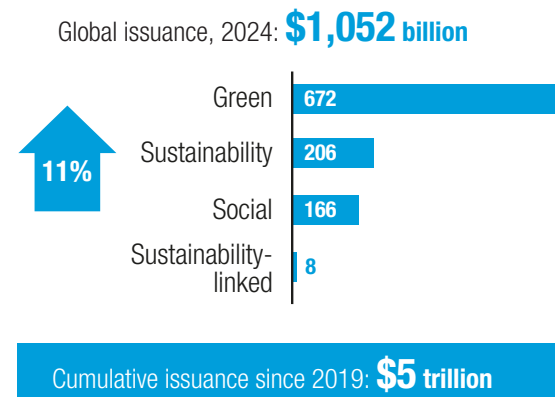


## Key findings

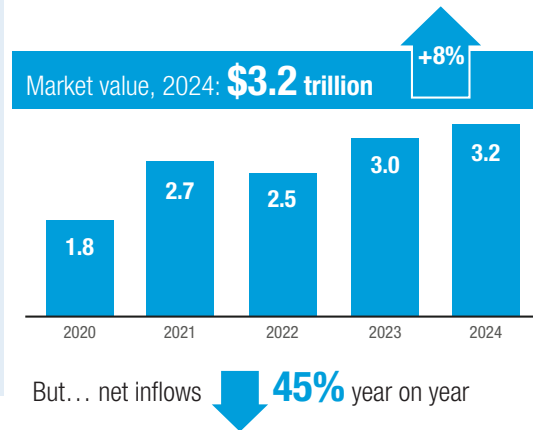
- ▶ **Sustainable finance markets presented a mixed picture in 2024**  
Sustainable bond issuance reached a record high, while sustainable fund inflows slowed and investor caution intensified.
- ▶ **Both voluntary and compliance carbon markets expanded**  
However, integrity concerns and uneven pricing undermine the effectiveness of such markets, and standardization and market access remain challenges.
- ▶ **Sovereign wealth and public pension funds continued to recognize the material financial risks posed by climate change**  
However, a significant minority still do not report on sustainability, limiting effective assessment of climate risk for these large and influential investors.
- ▶ **Divergence in sustainable finance policymaking widens among developed economies**  
The European Union focused on policy consolidation and regulatory refinement; in the United States, sustainable finance faced a continued backlash; other developed economies took steps to enhance market credibility.
- ▶ **Developing economies accounted for about 60 per cent of new sustainable finance policy measures**  
Yet in many, institutional and capacity gaps persist, requiring targeted support – especially as the disclosure burden increases on small and medium-sized enterprises.
- ▶ **Consensus grows on mechanisms to achieve a scaling-up of sustainable finance**  
These mechanisms primarily focus on blended financing approaches, including guarantees, credit enhancement and additional derisking tools, as well as sustainable bonds and carbon markets.
- ▶ **The outlook for sustainable finance hinges on translating recent momentum into scaled, credible, and inclusive investment flows**  
Delivering on sustainability goals will require closing institutional and capacity gaps and ensuring the transition to a resilient and equitable financial system.

## The sustainable finance market presented a mixed picture in 2024

### Sustainable bonds reached a record high



### Sustainable funds lost momentum but remained buoyant



## More countries introduced carbon pricing, boosted by Article 6 of the Paris Agreement, at COP29

### Compliance carbon pricing

Global revenues hit **\$75 billion**



Compliance carbon markets and pricing covered **24%** of greenhouse gas emissions



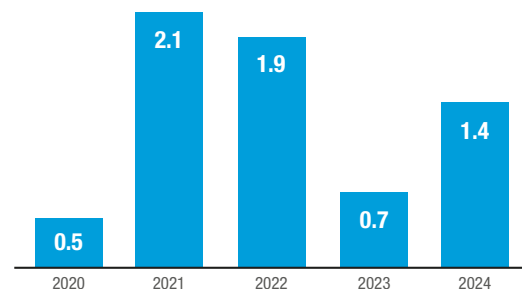
Developing economies accounted for **5%** of revenue from emission trading systems; **14** more are implementing or considering them



But the **average carbon price** remains too low to meet climate targets

### Voluntary carbon markets

Market value rebounded to **\$1.4 billion**



Problems with credit integrity and standardization persisted



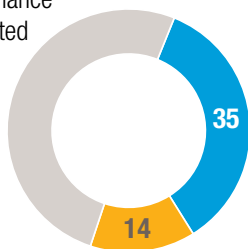
## Long-term investors continued to prioritize climate risks

### Sustainable finance policymaking remained active

**73** new sustainable finance policy measures adopted

Sustainability disclosure measures remained the most common, accounting for **35%** of policies

Carbon market measures accounted for **14%** of policies



### The UNCTAD top 100 asset owners:



**90%** of reporting funds set investment targets in **renewable energy**



**12%** set specific fossil fuel divestment targets



**61%** undertake **climate scenario analysis**

## A. Sustainability-themed capital market products

The sustainable finance market grew to more than \$8.2 trillion in 2024, up 17 per cent from 2023, but faced intensified headwinds and growing investor caution.<sup>1</sup> Accelerating growth in the sustainable bond market saw record issuance of over \$1 trillion. The value of the sustainable fund market also reached a record high, at \$3.2 trillion, but the number of new funds stalled and net inflows to the market declined to their lowest level since 2015.

### 1. Sustainable bond markets

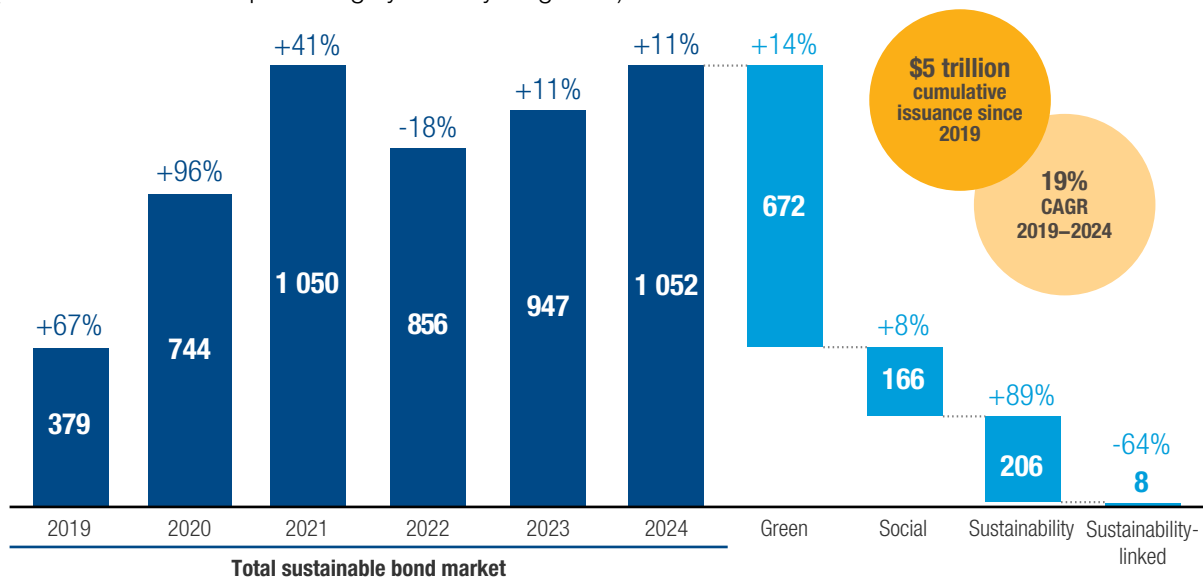
Global issuance of green, social, sustainability and sustainability-linked bonds (SLBs) reached a record level

of more than \$1 trillion in 2024, up 11 per cent from 2023. Issuance trends varied by market segment (figure III.1).

**Figure III.1**

#### Sustainable bond issuance reached a record level in 2024

Global sustainable bond issuance by year and by category  
(Billions of dollars and percentage year-on-year growth)



Source: UNCTAD, based on information from Climate Bonds Initiative.

Abbreviation: CAGR, compound annual growth rate.

<sup>1</sup> This chapter covers publicly traded sustainable finance products only, namely bonds and funds. It excludes derivatives, whose value may be unrealized.

Annual issuance has grown at an average rate of 19 per cent since 2019, as the market continues to mature and investors align their strategies with sustainable outcomes, with the last six years of cumulative issuance now standing at more than \$5 trillion. Annual issuance of sustainable bonds as a share of the global bond market has remained above 10 per cent since 2021, representing 11 per cent of the market in 2024.<sup>2</sup>

Green bonds accounted for 64 per cent of total issuance – the largest share – growing 14 per cent from 2023 to 2024, a reflection of both investor preferences for financing environmentally aligned projects and issuer interest in accessing new sources of finance. Growth in this segment has also been supported by expanding regulatory coverage, for example in developing economies (see section C), and net zero commitments by corporates and sovereigns.

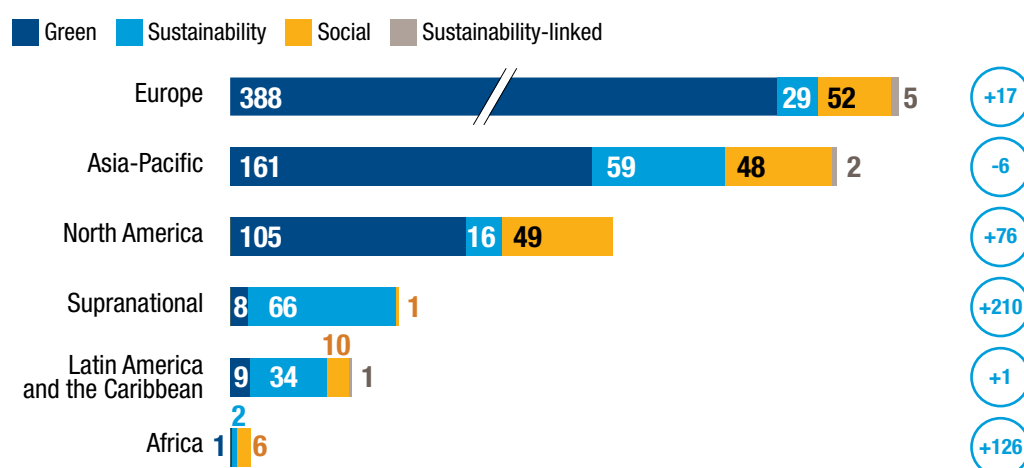
Social bond issuance, which had been declining since the COVID-19 pandemic

(partly as a result of fewer pandemic-linked bonds), saw a modest 8 per cent increase, driven by renewed interest from government issuers and multilateral development banks. Meanwhile, sustainability bond issuance surged by 89 per cent to a record \$206 billion, as supranational issuers, including development banks and the World Bank, became the largest issuers (CBI, 2024b). In contrast, SLBs experienced a sharp decline to their lowest level since 2020. The decline is partly attributable to the lack of commonly agreed standards and transparent processes for measuring targets, which has led to scepticism about the effectiveness of SLBs in promoting genuine sustainability efforts (OECD, 2021). In turn, this has undermined their credibility relative to Use of Proceeds products, such as green bonds (*The Financial Times*, 2024).

In 2024, Europe remained the largest issuer of sustainable bonds, with euros still the most popular currency for bond denomination (figure III.2).

### Figure III.2 Sustainable bond issuance increased across all regions except Asia-Pacific

Global sustainable bond issuance by region and category, 2024  
(Billions of dollars and percentage change from 2023)



Source: UNCTAD, based on information from Climate Bonds Initiative.

<sup>2</sup> Claudia De Meulemeester (2025), Sustainable bond market expected to remain steady at \$1tn in 2025, Sustainable Views, 7 February, <https://www.sustainableviews.com/sustainable-bond-market-expected-to-remain-steady-at-1tn-in-2025-b5e70674/>.

North America saw strong growth. Supranational issuance tripled from 2023, driven largely by government-backed entities and development banks (CBI, 2024b).

Although Asia-Pacific remains the second largest region for sustainable bond issuance, it experienced a small decline in 2024. China accounted for over a third of issuance in the region, mostly in green bonds targeting the energy sector. Over the past decade, the green bond market in China has grown significantly, driven by its net-zero goal for 2060. China had been promoting internationally aligned bonds that help improve comparability and, consequently, contribute to lower borrowing costs. Although transparency in reporting is generally widespread and of high quality, further enhancements are necessary to ensure greater consistency and strengthen trust within the market.

In Latin America and the Caribbean, issuance remained unchanged from the previous year. While the share of green bonds doubled, SLBs nearly disappeared and sustainability bonds were the biggest category of issuance in 2024. Chile and Brazil have been expanding their green finance markets. Towards this end, Chile has introduced a more robust standards framework (Reuters, 2024). Brazil's green bond issuance remains small but has been growing, with a recent sovereign bond issuance allocating 50 to 60 per cent to environmental projects and 40 to 50 per cent to social initiatives (Brazil, National Treasury, 2024).

Sustainable bond issuance in Africa provided an exception to trends in emerging markets, with issuance more than doubling in 2024. For example, the African Development Bank issued \$6 billion in green, social and sustainability bonds in 2024 (CBI, 2024a), with South Africa the largest individual country issuer of green, social, sustainable and sustainability-linked products at \$1.1 billion. The growing attractiveness of such bonds in Africa affirms the important role of sustainable finance in improving

climate resilience, supporting infrastructure development and sustaining essential services for socioeconomic progress across the continent (CBI, 2024b). However, the large weight of development banks in African issuance also raises questions about how to develop capital markets in the region and diversify the issuance of sustainable bonds. While developing countries have seen issuance growing, the landscape is varied, and many countries face difficulties in issuing sustainable bonds and developing their own sustainable bond markets.

In 2024, the “greenium” – the premium that investors have historically been willing to pay for green bonds over conventional bonds – became less pronounced. The previous scarcity of green bond issuance in some segments had led to higher demand, pushing green bond prices up and yields down; however, this effect faded in 2024, with the interest rate spread in the Euromarket between conventional and green bonds averaging just 1 basis point by the end of the year. This suggests that as sustainable bond markets mature and supply increases, price differences between green and conventional bonds are narrowing (AXA Investment Managers, 2025; Chouard and Jourde, 2024).

In 2024, government-backed entities emerged as the largest issuers of sustainable bonds, raising \$250 billion, a 43 per cent increase from the \$175 billion raised in 2023 (figure III.3). Together with sovereign and local government issuance, public issuance surpassed corporate issuance for the first time since 2017. Development banks more than doubled their issuance, reaching \$154 billion – up from \$73 billion in 2023 – with sustainability bonds accounting for 55 per cent of the total. Meanwhile, corporate issuance continues to be a strong driver of growth in green, social, sustainable and sustainability-linked bonds: \$444 billion worth of sustainable bonds were issued in 2024, with non-financial corporates posting a 15 per cent increase year on year.

**Sustainable bonds:** important, largely untapped project financing instrument for developing economies

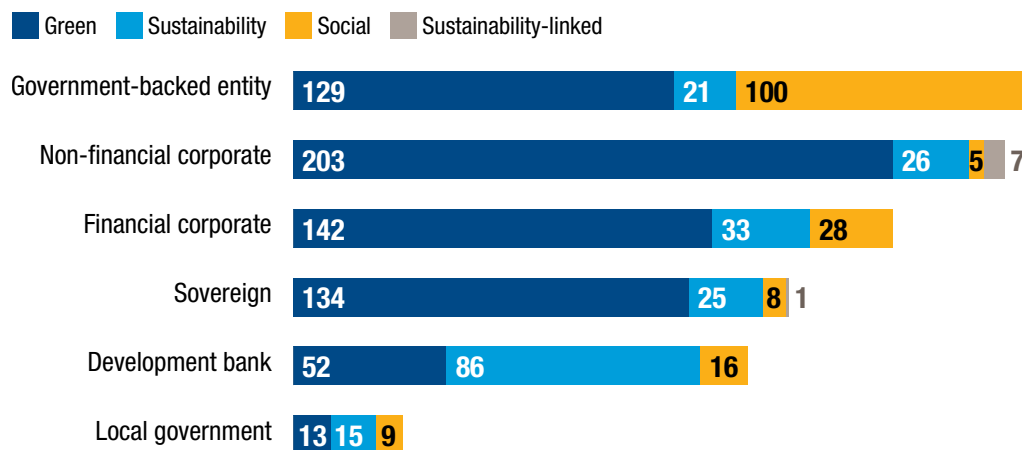




**Figure III.3**

**Public issuers edged past corporates; development bank issuance more than doubled in 2024**

Global sustainable bond issuance by issuer type and category  
(Billions of dollars)



Source: UNCTAD, based on information from Climate Bonds Initiative.



### a. Green bonds

Accounting for almost two thirds of total issuance, green bonds continue to dominate the sustainable bond market and provide an important source of finance for environment-related investment. The sectoral distribution of green bond issuance reflects investment priorities, with continued focus on renewable energy projects and infrastructure, as well as standard-setting activity. Recent developments in standards and regulation, such as the EU Green Bond standard, are helping to establish clearer guidelines and increase market confidence (European Union, 2023).

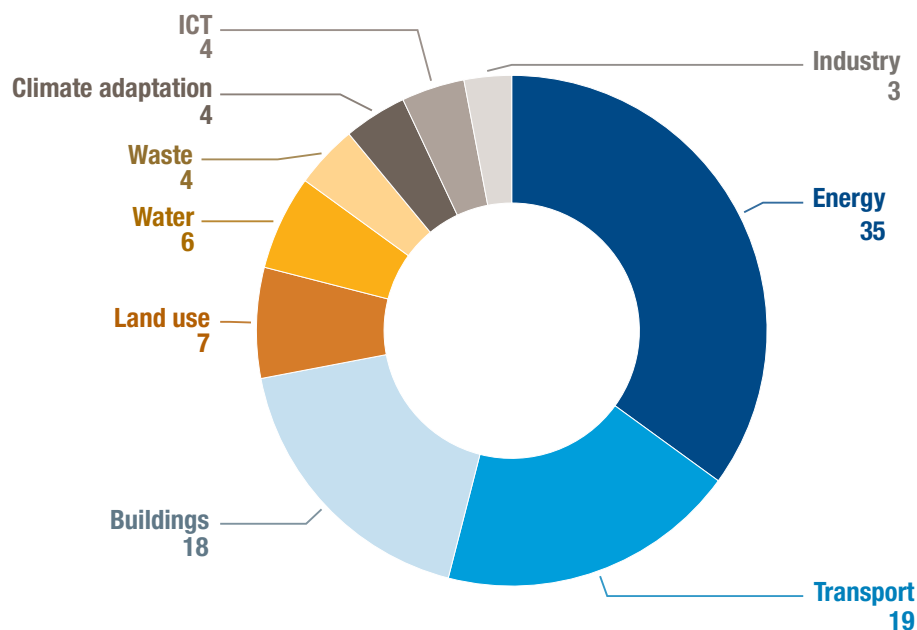
The energy sector, which accounts for the majority of green bond issuance, remained unchanged at 35 per cent (figure III.4). Although slightly down from last year, issuance for transport-related investment was the next largest sector at 19 per cent,

including investment in sustainable mobility solutions. The buildings sector accounted for 18 per cent of issuance, unchanged from 2023, helping to finance sustainable construction and energy-efficient real estate. Issuance in water and waste projects, which accounted for 10 per cent, and land use and climate adaption projects (collectively 11 per cent), all remained almost unchanged from 2023. In light of the record global temperatures in 2024, which surpassed the 1.5° Celsius warming threshold for the first time (WMO, 2025), investment will increasingly be required for adaptation projects and more resilient infrastructure in water and transport, as well as land use and buildings. Green bonds are set to play an important financing role in this investment, and new demand for these products in various forms such as Islamic financial instruments is increasing (box III.1).

Figure III.4

#### Energy is the most common sector for green bond issuance

Global green bond issuance by sector  
(Percentage)



Source: UNCTAD, based on information from Climate Bonds Initiative.

Abbreviation: ICT, information and communication technology.



### Box III. 1 Green sukuk

Sukuk are financial instruments for which the holders earn returns based on the performance of tangible assets, which spreads risk between the issuer and buyer and has a direct link with the intended use of proceeds. As asset-based or asset-backed products, sukuk do not constitute debt obligations.

Green sukuk can provide liquidity for economic growth and sustainable development projects, including investment in renewables, buildings, and water and sanitation (European Union, 2021). Because they require investing responsibly and in a sustainable manner, such financial instruments have the potential to channel private capital to sustainable projects and contribute to filling the Sustainable Development Goals funding gap (UNCTAD, 2024).

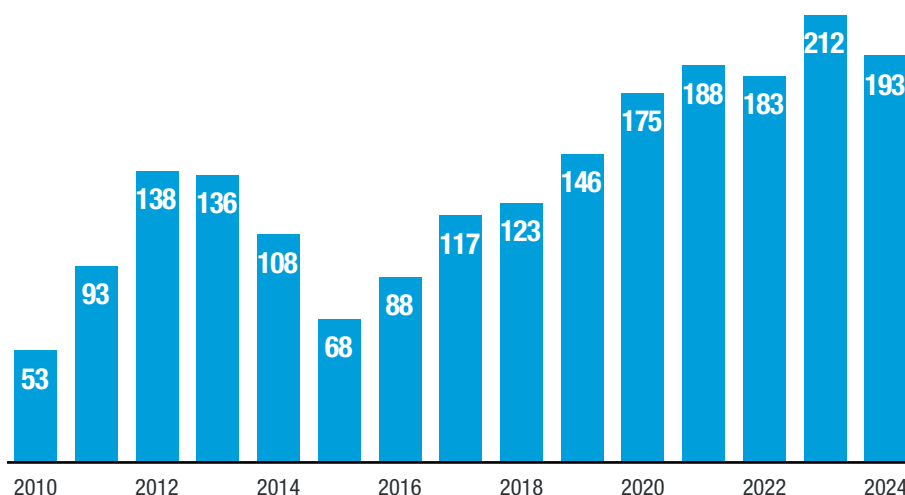
The global sukuk market is most active in Indonesia, Malaysia, Saudi Arabia, Türkiye and the United Arab Emirates. The market has grown from \$68 billion in annual issuance in 2015, to a peak of \$212 billion in 2023, before falling back to \$193 billion in 2024 (box figure III.1).



#### Box figure III.1

#### The global sukuk market has experienced stable growth in the past decade

Global sukuk issuance, 2015–2024  
(Billions of dollars)



Source: IIFM and S&P, 2024.

Malaysia is one of the largest issuers, at more than \$60 billion in 2024, representing about 30 per cent of global issuance (S&P Global, 2025). The country has a dual banking system with both Islamic and non-Islamic financial institutions (IFSB, 2024). The Securities Commission of Malaysia is planning to establish a “social stock exchange” to enable private capital participation in projects that have positive social outcome goals. The exchange aims to promote social justice and investment in healthcare and infrastructure (GFIEF, 2024).

Source: UNCTAD.



## b. Social, sustainability and sustainability-linked bonds

In 2024, social and sustainability bond and SLB issuance rose to \$380 billion, accounting for over a third of the total sustainable bond market. Despite year-on-year growth of 14 per cent in 2024, the compound annual growth of this segment from 2020 to 2024 is still on a downward trajectory of –4 per cent (figure III.5).

Social bond issuance recovered for the first time since 2020, reversing the downward trend that had followed the expiration of pandemic-related social bonds (UNCTAD, 2024). These products tend to be favoured by government entities rather than corporates and may finance

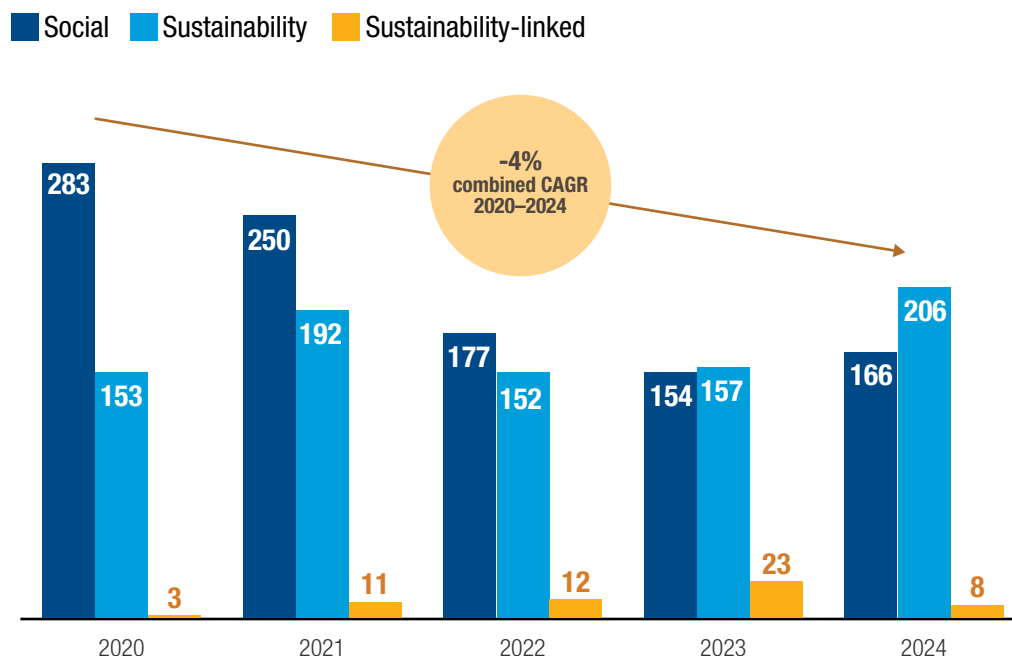
social-related programmes rather than income-generating projects. This is visible in the high share of social bond issuance in Africa, at 65 per cent of total issuance.

Sustainability bonds continued their upward trend, rising by 31 per cent, driven by increased supranational issuance for financing multi-theme environmental, social and governance (ESG) projects (CBI, 2024a). Sustainability bonds were strongly preferred by development banks, local governments and, to an extent, sovereigns, possibly owing to the flexibility of their use. Sustainable Development Goal-labelled bonds are a subset of social and sustainability bonds that have been used to promote and market the financing of projects that have a clear Goals dimension,

**Figure III.5**

**Social and sustainability bond issuance increased in 2024 while sustainability-linked bonds fell out of favour**

Global issuance by category  
(Billions of dollars)



Source: UNCTAD (2025).

Abbreviation: CAGR, compound annual growth rate.

although their use since the launch of the Goals has been limited (box III.2).

SLB issuance fell to \$8 billion in 2024 – the lowest level since 2020 – accounting for less than 1 per cent of total issuance. This divergence between social and sustainability bonds on one hand and SLBs on the other highlights some challenges in the SLB market, especially concerning perceptions of greenwashing.

For example, many SLB issuers provide only partial coverage of greenhouse gas (GHG) emissions, often excluding Scope 3 emissions, and some set targets that are not aligned with the Paris Agreement (CBI, 2023). Moreover, the alignment of SLBs with sustainability targets has been deteriorating, with less than a quarter of products meeting the criteria in some verification methodologies (CBI, 2024b).



### Box III.2

#### The role of social and sustainability bonds in financing the Sustainable Development Goals

The Sustainable Development Goals and the Paris Agreement form the two pillars of United Nations-backed sustainable development efforts worldwide. All sustainable bonds link to or directly contribute to Goals targets. Nevertheless, a number of issuers have explicitly labelled their products as Sustainable Development Goals bonds. These self-labelled bonds are a subset of social and sustainability bond categories and offer a source of targeted additional financing for the Goals. More than 100 such self-labelled bonds have been issued since 2017, with a cumulative value of more than \$67 billion, representing almost 3 per cent of all social and sustainability bond issuance. Annual issuance of these self-labelled bonds rose steadily from 2018 to 2022 before declining in 2023. However, issuance in 2024 reached a record level of \$15.6 billion, or almost 4 per cent of social and sustainability bond issuance.

The majority of these self-labelled bonds are categorized as sustainability bonds and are used for projects covering health, education and other Goals targets, including projects with a positive gender impact. About 30 per cent of bonds fall in the social category, covering housing; however, these bonds are an emerging instrument for Goals financing and all bonds currently in the social category were issued by a public bank in the Kingdom of the Netherlands.

Most of these self-labelled bonds are issued by public institutions, including Government-backed entities, such as development banks, and sovereign issuers, which together account for \$53.6 billion in issuance. Corporates account for the remainder by value but are not widely distributed among issuers. Thus, although the Goals were launched nearly a decade ago, self-labelled Sustainable Development Goals bonds remain a small subset of the sustainable bond market and have not contributed significantly to non-environmental Goals targets.

Source: UNCTAD, based on information from Climate Bonds Initiative.

## 2. Sustainable funds

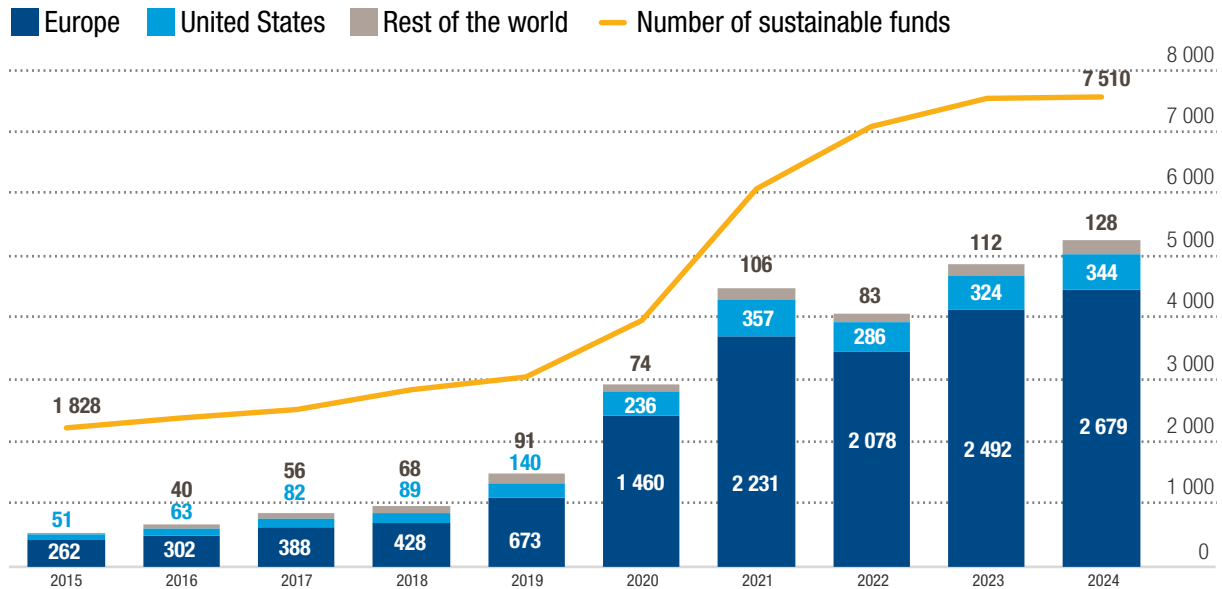
### a. Market trends

The expansion of sustainable funds stagnated in 2024, with marginal growth from 2023 (figure III.6). The total number

of funds now stands at 7,510. The slowdown was mainly driven by a 45 per cent decline in new launches and an increase in fund closures, reflecting market consolidation and investor caution.



**Figure III.6**  
**Global issuance of sustainable funds slowed down in 2024**  
Value and number of funds by issuer location  
(Billions of dollars and number)



Source: UNCTAD, based on Morningstar data.

The total assets of sustainable funds reached nearly \$3.2 trillion in 2024, marking an 8 per cent increase from 2023, mainly driven by strong equity market performance in Europe and the United States. Europe continued to dominate the market, with assets worth \$2.7 trillion, or 84 per cent of the global market. The value of sustainable funds in the United States increased from \$324 billion in 2023 to \$344 billion in 2024, representing 11 per cent of the global market, despite a 5 per cent drop in the number of funds. The market share in the rest of the world remained small, at about 5 per cent.

The stalling interest in sustainable funds was reflected by the continuing fall in net inflows to sustainable funds. Global net investment inflows to those funds fell for the third consecutive year, reaching \$37 billion in 2024, a drop of more than 40 per cent from 2023 (figure III.7). This compares to inflows to the total global fund market of \$1.4 trillion, up from \$66 billion in 2023.

European sustainable funds attracted \$53 billion in net inflows in 2024, down 30 per cent from 2023. The United States market experienced a net outflow of \$20 billion for the second consecutive year, apparently due to a growing backlash against ESG investing (Morningstar, 2025). Other developed markets also witnessed a net outflow, of \$7 billion. Developing Asia attracted net inflows of \$11 billion in 2024, driven mainly by investments in China and Singapore, but still down from about \$13 billion in 2023.

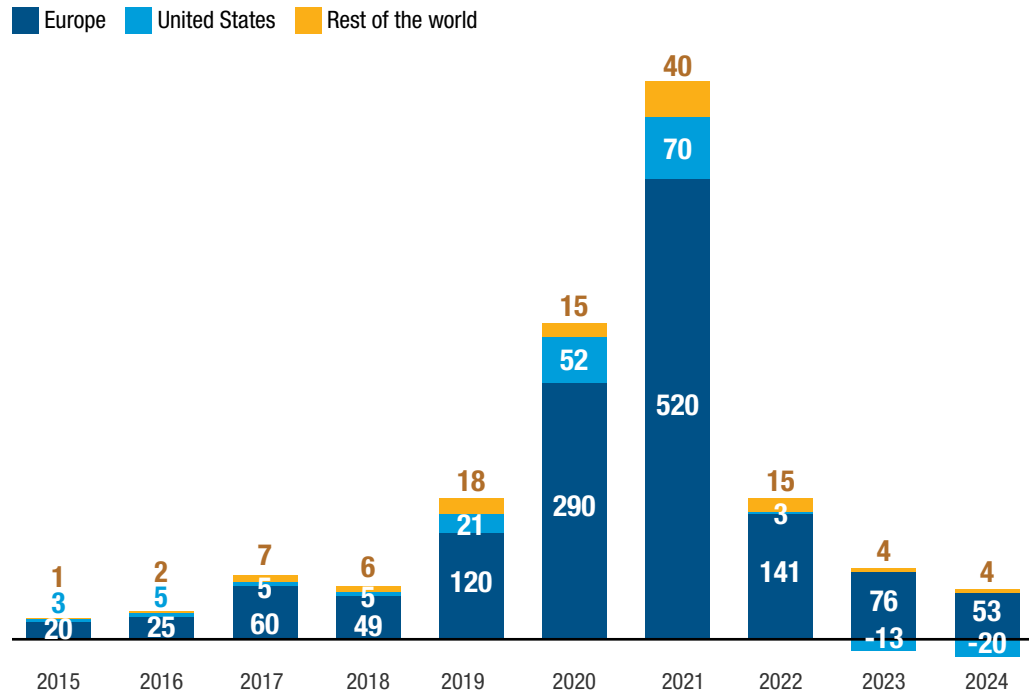
A combination of factors contributed to the recent slowdown in the market, including regulatory and policy uncertainties, dampened enthusiasm and rising anti-ESG sentiment, elevated interest rates and the financial underperformance of ESG strategies. Sustainable funds generated median returns of 0.8 per cent while returns on traditional funds reached 1.5 per cent in 2024 (Morgan Stanley Institute for Sustainable Investing, 2025).



**Figure III.7**

**Net investment flows to sustainable funds continued to plummet despite strong performance in the global equity markets**

Value of flows by major markets  
(Billions of dollars)



Source: UNCTAD, based on Morningstar data.

The evolving regulatory environment in Europe and in the United States had an impact on launches of sustainable funds, as well as closure and reclassification of existing funds. In response to stricter regulations in Europe, the market has seen a surge in fund rebrandings and closures. In 2024, 213 funds changed their names, with 115 removing ESG-related terms to comply with evolving disclosure and classification requirements.

In the United States, policy backlash against sustainable investing intensified with several states enacting legislation to restrict the use of sustainability or ESG criteria in investment decisions. Some asset managers in the country have chosen to reduce or close their sustainable funds while others have rebranded their products without changing the underlying strategy

(Morningstar, 2025). In addition, relatively higher interest rates have continued to put pressure on key sustainable investment sectors characterized by large upfront costs, such as renewable energy.

## b. Addressing greenwashing concerns

Greenwashing remains a significant concern in the sustainable fund market. The lack of reliable and consistent data at the company or product level continues to make it difficult to accurately evaluate the sustainability credentials of funds (Bondar et al., 2024). Nevertheless, some progress has been made in addressing this issue through recent policy developments.

The European Union has made continued progress in refining its regulatory framework



to enhance transparency and combat greenwashing in the sustainable fund market. The European Securities and Markets Authority introduced fund naming guidelines in December 2024, establishing minimum standards for funds that use ESG-related terms in their names. The rules, which came into force in May 2025, mandate stricter sustainability criteria, including mandatory exclusion of controversial activities in sectors such as fossil fuels and weapons, as well as a requirement for specific thresholds of a fund's portfolio to be allocated towards defined sustainable investment objectives.

The United Kingdom has adopted a similar approach with the introduction of the Sustainability Disclosure Requirements and investment labelling rules in July 2024. The Financial Conduct Authority has established four distinct sustainability labels to help investors differentiate between sustainable investment strategies: (i) sustainability focus, (ii) sustainability improvers, (iii) sustainability impact and (iv) mixed goals.

Meanwhile, both developed and developing economies continue to roll out policy measures on sustainability disclosures, standards and taxonomies, aiming to enhance market transparency and address greenwashing concerns (see section C).

### c. Underrepresentation of developing economies

Another fundamental challenge facing the sustainable fund market is the very limited involvement of and benefits for developing economies. Currently, developing economies host only about 3 per cent of the world's sustainable funds in terms of number and assets, despite accounting

for about 30 per cent of the global fund market by value (Precedence Research, 2025). Although developing Asia has seen increases in assets and investment in sustainable funds in recent years, this trend remains highly concentrated in a few emerging economies such as China, India and Singapore. Meanwhile, most other developing countries remain largely absent from the global sustainable fund landscape.

Moreover, excluding China, funds and equities in developing countries experienced net outflows of \$11 billion in 2024, and the value of green assets in developing countries (still excluding China) remained negligible (Institute of International Finance, 2025).

The perception of market risk in developing regions, as well the lack of sustainability data on developing-country equities, make the construction of sustainable funds dedicated to developing markets challenging.

The limited participation of developing economies presents a twofold opportunity for the sustainable fund market and developing regions: one, for global funds to increase their exposure to these regions and the growth potential that exists there, as well as ensuring that sustainable funds contribute more effectively to the Sustainable Development Goals; and two, for developing countries to strengthen their capital markets and regulated products so as to attract capital that otherwise flows to better-regulated markets and products. Expanding the sustainable fund market in developing economies and the exposure of funds to these markets therefore requires targeted policy measures to enhance transparency and regulatory oversight, improve data availability and support capital market development.

Developing economies host only about **3 per cent of all sustainable funds**



## B. Carbon markets

**Carbon markets, comprising voluntary and compliance mechanisms, are central to global decarbonization efforts. While voluntary carbon markets (VCMs) have seen declining credit issuance since 2021 due to integrity concerns, compliance carbon markets (CCMs) have grown steadily, generating over \$100 billion in revenue by 2023. Developing economies are increasingly active in both markets, with growing participation in emissions trading systems and carbon tax schemes to finance sustainable transitions.**

### 1. Overview

Carbon markets enable the trade of carbon credits or allowances, which contribute to achievement of decarbonization or carbon mitigation targets. VCMs operate as unregulated marketplaces in which companies and organizations voluntarily purchase carbon credits to offset emissions and support sustainability initiatives. In contrast, CCMs are regulated systems in which governments set emission limits and issue tradable permits to entities, enforcing specific reduction targets.

#### a. Trends in voluntary carbon markets

In 2024, VCMs worldwide issued credits for 287 million tons of carbon dioxide equivalent (tCO<sub>2</sub>e), a 7 per cent decrease from 2023. Meanwhile, credits for 177 million tCO<sub>2</sub>e were retired, leaving a gap of approximately 110 million tCO<sub>2</sub>e credits not yet retired (figure III.8). The overall trend in global VCMs shows that the market gained significant traction from 2014 to 2021, with issuance increasing steadily almost every year to its peak in 2021, before declining by 20 per cent over the past three years. Since the Paris Agreement entered into force in late 2016, more than

4,700 projects have issued credits, with cumulative issuance exceeding 2.1 billion tCO<sub>2</sub>e (MSCI, 2025). In terms of value, global VCMs rebounded significantly in 2024, reaching \$1.4 billion, but still far from the 2021 peak at \$2.1 billion (figure III.9).

The drop from the 2021 peak in both value and volume, as well as the divergence between issuance and retirement, can be attributed primarily to concerns over the integrity of carbon offsets. Since 2002, approximately 984 million tCO<sub>2</sub>e of carbon credits, about 40 per cent of total issuance, have remained unretired, raising market integrity concerns, particularly regarding older issuance. The Integrity Council for the Voluntary Carbon Market (ICVCM) found that some methodologies for renewable energy projects failed to meet rigorous additionality criteria, rendering approximately 236 million unretired credits ineligible for high-integrity labelling under the Core Carbon Principles (ICVCM, 2024). These low-integrity credits contribute to an oversupply that depresses prices and weakens market effectiveness. Investor distrust has led companies to withdraw from offset purchases, amplifying uncertainty and further lowering prices (Reuters, 2023).

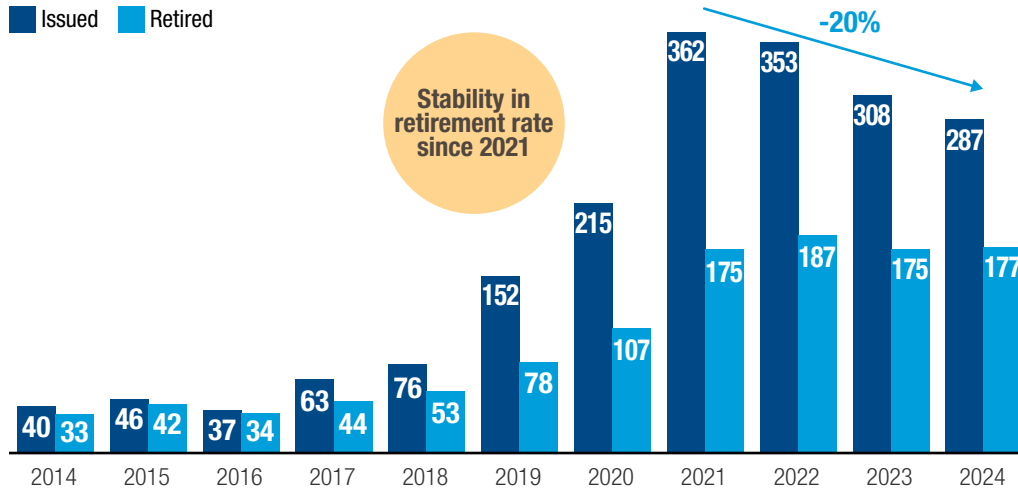




**Figure III.8**

**The number of voluntary carbon market credits issued continued to fall year by year since 2021, while the retirement rate remained stable**

Number of credits issued and retired  
(Millions)

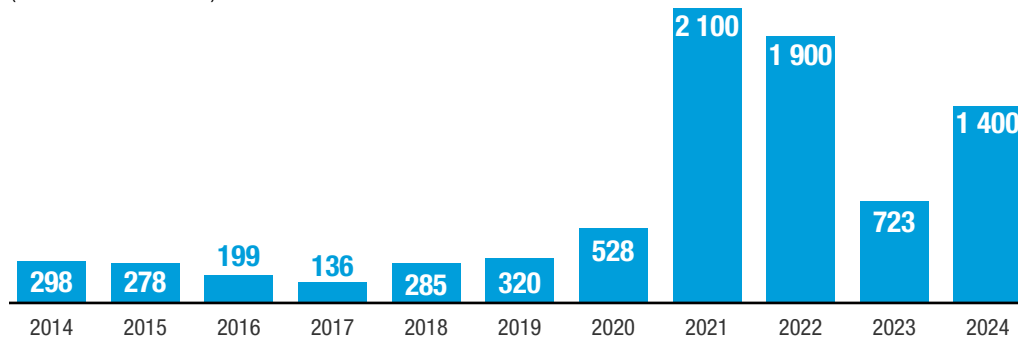


Source: Climate Focus (2024).

**Figure III.9**

**The value of global voluntary carbon markets nearly doubled from 2023 but remained below 2021 and 2022 levels**

Market size by value of traded carbon credits  
(Millions of dollars)



Source: EcoSystem Marketplace, MSCI (2024).

Yet, several use cases for carbon credits will continue to drive demand and support the growth in global VCMs. With businesses increasingly integrating climate risk into their operations and seeking to offset their residual emissions, corporate voluntary purchases will remain the dominant source of demand in VCMs (World Bank Group, 2024). Meanwhile, linkages

with compliance markets, international offsetting initiatives and government efforts to meet their nationally determined contributions (NDCs) also drive demand and point to continued market growth.

Nature-based solutions, designed to protect, manage and restore natural ecosystems, have accounted for the largest share of carbon credit issuance



in the past three years, followed by renewable energy, household activities (such as clean water programmes, lighting efficiency improvements and cookstove enhancements), industry, waste and other activities. Since 2022, diversification in credit distribution has grown, potentially in response to concerns about the integrity of some nature-based solution credits (Ecosystem Marketplace, 2024). While these solutions are still set to lead credit issuance, the decline contrasts with the steady growth of issuance linked to household activities. Meanwhile, renewable energy projects have remained a stable source of credit issuance.

## b. Trends in compliance carbon markets

As of 2024, global compliance carbon markets (CCMs) included 36 emissions trading systems (ETs), which have become a key policy instrument for reducing carbon emissions. In parallel, 39 carbon tax schemes, another major form of carbon pricing, were also implemented

worldwide. Together, these 75 carbon pricing instruments covered approximately 24 per cent of global GHG emissions, or 12.8 GtCO<sub>2</sub>e. Government revenues from these instruments surpassed \$100 billion in 2023 for the first time, with ETs accounting for about 70 per cent of the total (World Bank Group, 2025). While their contribution to overall public budgets remains modest, carbon pricing revenues have the potential to become a significant source of climate finance if strategically allocated.

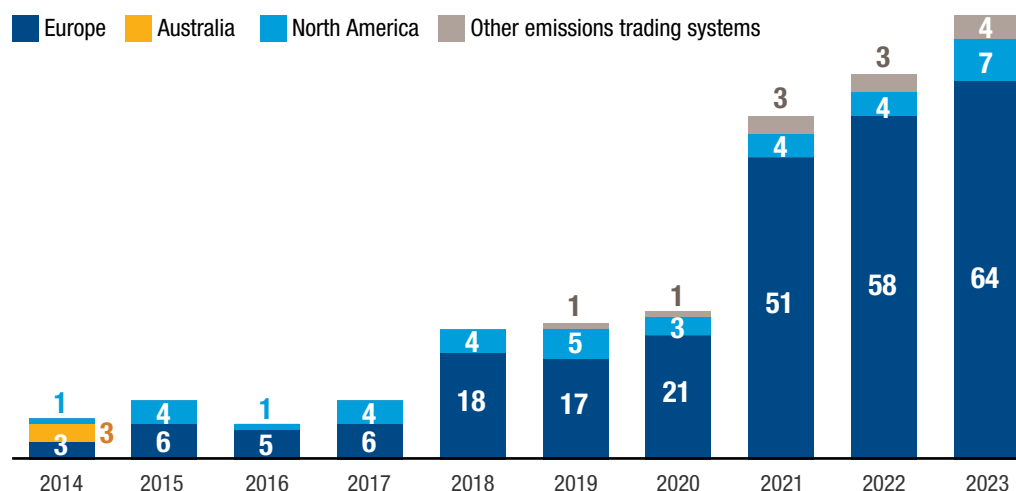
Global revenues from ETs rose significantly from 2020 (\$25 billion) to 2023 (\$75 billion), with more than half used to fund climate- and nature-related programmes. The growth was driven primarily by European schemes (including those of the European Union, Germany and the United Kingdom), with \$64 billion of revenue in 2023, or 85 per cent of the global total (figure III.10). The substantial increase in revenue in the European Union ETs was itself propelled by an upward trend in carbon prices and rising demand by carbon-intensive industries. North America contributed a relatively small



**Figure III.10**

**Revenues from compliance carbon markets have continued to grow at a steady rate since 2021, driven primarily by European schemes**

Global revenue from emission trading schemes by market  
(Billions of dollars)



Source: World Bank Group (2025).

Note: European revenues include those from emission trading schemes in the European Union, Germany and the United Kingdom since 2020.



but expanding share of total revenues in 2023. ETS markets in developing economies have experienced significant growth and represent about 5 per cent of global revenue since 2021 (WTO et al., 2024). In China, the price of carbon traded on its ETS increased 54 per cent in 2024, from \$8.15 to \$12.57 per tCO<sub>2</sub>e (World Bank, 2025).

Establishing climate mitigation mechanisms to raise the cost of domestic carbon emissions is essential to combating climate change. However, the fragmentation of standards and significant discrepancies in pricing pose severe policy concerns and could lead to the risk of carbon leakage – when industries shift their activities to jurisdictions with lower carbon costs – thereby threatening the

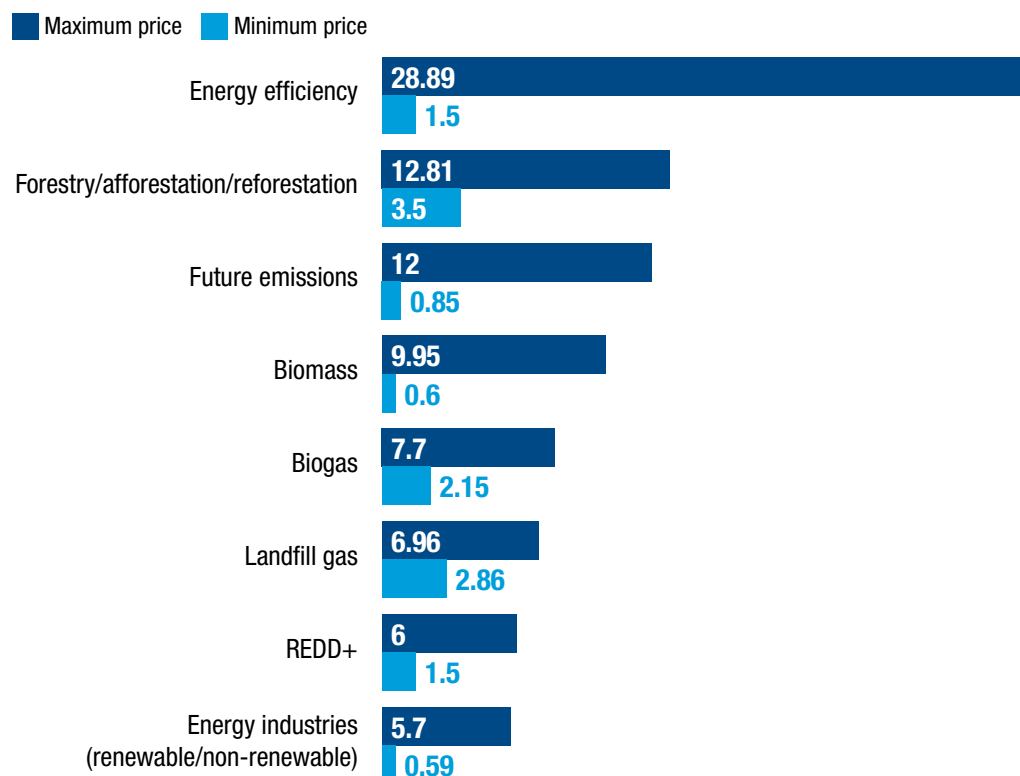
overall strategy for reducing carbon emissions (WTO et al., 2024).

### c. The price challenge

Although carbon pricing policies now cover a larger share of global emissions, their coverage and price levels remain insufficient to align with a global warming target below 2°C – let alone the more ambitious, Paris Agreement-aligned target of 1.5°C. Leading CCMs have huge disparities in carbon pricing, ranging from less than \$1/tCO<sub>2</sub> to more than \$160/tCO<sub>2</sub>. According to the High-Level Commission on Carbon Prices, to provide sufficient incentives to meet the 2°C emissions pathway target, carbon prices should be in the range of

**Figure III.11**  
**Voluntary carbon market projects in energy efficiency command a substantial price premium**

Price by project, 2025  
(Dollars per credit)



Source: UNCTAD, based on Carbon Trade Exchange data.

Abbreviation: REDD+, Reducing emissions from deforestation and forest degradation, plus conservation of forest carbon stocks, sustainable management of forests and enhancement of forest carbon stocks.

\$62–\$127/tCO<sub>2</sub>e. At present only seven carbon pricing mechanisms, covering less than 1 per cent of global GHG emissions, fall within this range; no mechanism currently falls within the price range of \$226–385/tCO<sub>2</sub>e, consistent with limiting temperature rise to 1.5°C (WTO et al., 2024).

In VCMs, carbon prices vary significantly within and across market segments (figure III.11), but most remain in the single digits, a level insufficient to incentivize carbon reduction projects in most industries. The effectiveness and credibility of carbon offsets, along with the standards applied, together play a crucial role in carbon pricing. Varying project development costs across industries also have an impact.

Overall, carbon prices should increase significantly in order to incentivize emissions reduction and achieve countries' NDCs. Meanwhile, international coordination is essential to create a more level playing field and address potential

carbon leakage across borders, as well as competitiveness concerns.

#### d. Carbon market trends in developing economies

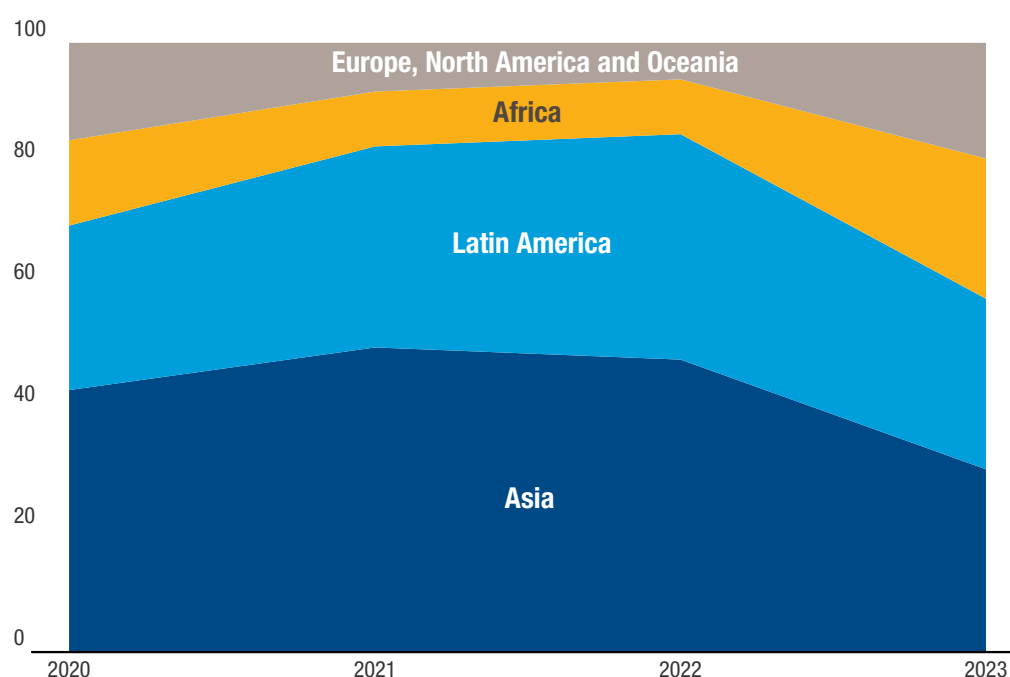
A closer look at developing economies reveals that these economies have become important players in both VCMs and CCMs, showing growing interest in leveraging carbon markets to finance the energy transition. The market share of developing economies in global VCMs peaked in 2021, driven by Asia (153 million tCO<sub>2</sub>e) and Latin America (103 million tCO<sub>2</sub>e). However, trade volumes declined sharply in 2022 and 2023 in response to reduced demand linked to integrity concerns, particularly environmental integrity concerns and low weighted average prices (World Bank Group, 2024). Despite this recent decline, developing regions still accounted for more than 80 per cent of credits traded in VCMs globally (figure III.12).



**Figure III.12**

#### Developing regions account for more than 80 per cent of credit volume

Share of volume of credit traded  
(Percentage)



Source: UNCTAD, based on Ecosystem Marketplace data.



Countries in Asia contributed a large share of credits issued in VCMs, but some developing economies in Africa and Latin America, such as Brazil, Peru and Rwanda, were also among the top issuers in 2024 on the Verra Registry, one of the world's most widely used carbon standards (figure III.13). With more developing economies rolling out policy measures on carbon crediting (see section III.D), their market share is expected to grow further in the coming years.

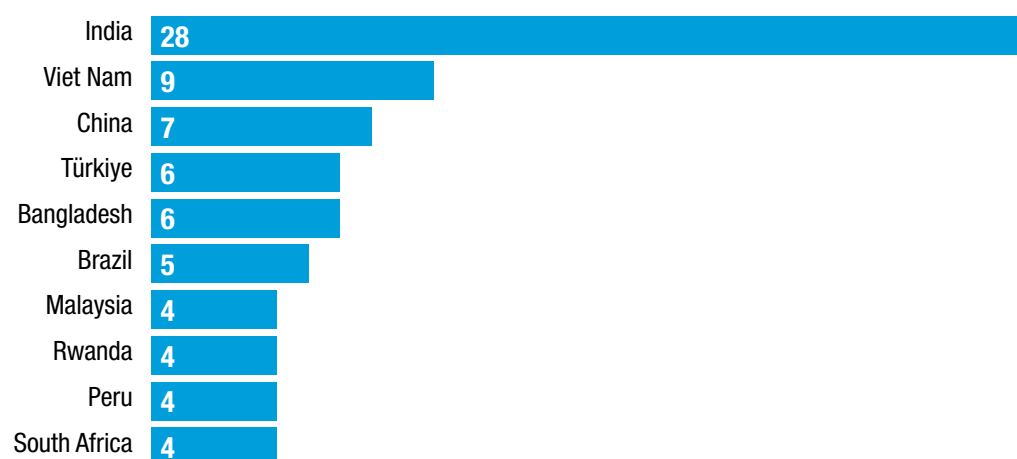
Developing economies are also increasingly engaged in the development of CCMs. Four have implemented a national ETS (China, Indonesia, Kazakhstan and Mexico). Several other countries are either considering or actively developing an ETS; they include Brazil, Chile, Gabon, India, Malaysia, Nigeria, Pakistan, Thailand, Türkiye and Viet Nam (table III.1).

**Figure III.13**

**India by far the largest carbon credit issuer in the Verra Registry**

Top 10 issuers in the registry 2024

(Millions of credits issued, tons of carbon dioxide equivalent)



Source: UNCTAD, based on Verra Registry data.

Note: Verra is a standard-setter and certifier of voluntary carbon offsets.

**Table III.1**

**Status of emissions trading schemes in developing countries, 2024**

| Implemented | In development | Under consideration |
|-------------|----------------|---------------------|
| China       | Brazil         | Argentina           |
| Indonesia   | Colombia       | Chile               |
| Kazakhstan  | India          | Gabon               |
| Mexico      | Türkiye        | Malaysia            |
|             | Ukraine        | Nigeria             |
|             | Viet Nam       | Pakistan            |
|             |                | Philippines         |
|             |                | Thailand            |

Source: UNCTAD, based on World Bank Group and International Carbon Action Partnership data.

Similarly, the adoption of carbon taxes as a policy tool for reducing emissions is gaining momentum, with countries such as Argentina, Colombia, Chile, Mexico, South Africa and Ukraine already implementing such measures. Meanwhile, Botswana, Kenya, Morocco and Uruguay, among others, are actively exploring carbon tax frameworks.

Although most of these countries already participate in VCMs, creating a national

ETS requires robust legal frameworks; governmental entities to regulate, operate and monitor the ETS (and strengthening of these entities over time as the carbon markets expand); and capacity-building (box III.3). In addition, the implementation of CCMs could have significant implications for competitiveness and production costs in the targeted sectors.



### **Box III.3** **Building partnerships and frameworks in Nigeria**

In Nigeria, the absence of a regulatory framework for carbon pricing or offtake created uncertainty for project developers and investors, hindered green investments and posed an obstacle to the fair valuation of carbon credits. To address these challenges, the National Council on Climate Change of Nigeria has taken proactive steps to build partnerships and frameworks, in collaboration with key players in the carbon market ecosystem, including the Nigeria Sovereign Investment Authority. This has led to the establishment of a dedicated committee to focus on framework development and capacity-building.

The strategic goals of the initiative include the formulation of a comprehensive carbon market policy supported by detailed operational manuals and regulations. To provide a robust foundation for carbon trading, relevant efforts target both Article 6 compliance markets and VCMs but the focus is on VCMs. Another critical objective is to ensure premium pricing for carbon credits, which at the time of writing sold at an undervalued rate of \$2–\$3 per ton. One way to enhance the price is to establish a policy framework that provides certainty and assurance for investors and project managers.

In 2023, the Nigeria Sovereign Investment Authority launched the Carbon Vista platform with Vito Energy Trader, a carbon trading company owned by the Public Investment Fund of Saudi Arabia. This joint venture focuses on integrated carbon reduction and removal projects, combining development, methodology and financing. A flagship project is the distribution of clean energy, which has reached over a million households. Another project is a biogas initiative to meet energy needs while reducing agricultural waste.

*Source:* UNCTAD.



## C. Institutional investors and sustainability integration

**Institutional investors continue to prioritize sustainability considerations in their investment strategies and remain vigilant regarding the material impact of the climate crisis on their assets. Despite pushback, recent climatic events are forcing institutional investors, including pension and sovereign funds, to re-evaluate the financial sustainability of their business and actuarial models and to intensify their climate-related actions. Regulatory and policy initiatives are also driving sustainability integration and disclosure. However, the number of funds in the UNCTAD top 100 that report remains almost unchanged from last year, meaning that a persistent minority of funds still fail to disclose their sustainability performance and are potentially overexposed to the risks posed by climate change.**

In 2024, assets of global public pension funds (PPFs) reached \$25 trillion and assets of sovereign wealth funds (SWFs) hit \$13 trillion. Because of their size and long-term investment horizon, these funds are in a unique position to drive investment in sectors, financial products and markets that can make a significant contribution to sustainable development and achievement of the Sustainable Development Goals. Since the 2008 global financial crisis, many public pension and sovereign investors have been allocating capital in developing-country markets and in alternative assets, such as infrastructure, as well as in co-investments with other domestic and foreign investors (UNCTAD, 2025). More recently, these investors have been allocating funds to sustainable products, such as green bonds, as well as issuing such products themselves.

In 2024, the top 100 public pension and sovereign asset owners managed almost \$27 trillion, up from \$24 trillion in 2023. Developing-economy funds represented 32 per cent of the top 100 funds by number but 43 per cent by value and have been

growing more rapidly than developed-economy funds since 2022. Of the 30 SWFs in the top 100, 22 are from developing countries, with average assets under management growing at more than twice the rate of that of the 70 pension funds.

Although Africa has just two funds in the top 100, more than half of the continent's countries have launched a SWF or are in the process of doing so (UNCTAD, 2025). These funds can provide a valuable source of long-term patient capital for investment, including through green bonds or carbon markets (see section III.A). The UNCTAD partnership with the African Sovereign Investors Forum, established in 2023, aims to leverage these funds for sustainable development in Africa.

Among the top 100, the number of funds that report on sustainability dropped slightly from 58, in 2023, to 57 in 2024. This is partly explained by funds not updating their sustainability reporting since 2022. Of the top 100 funds, 35 are domiciled in North America but 19 of these are non-reporting – all in the United States. This is



the second highest share of non-reporting funds after the Middle East, reflecting the weaker regulatory environment and potentially the impact of recent pushback against sustainability disclosure.

Europe has the highest share of reporting funds, with all funds in the European Union disclosing their sustainability performance. It is closely followed by developed Asia, where 13 of the 16 funds report. Emerging Asia has

the highest rate of reporting funds among developing-country regions, reflecting the impact of strong standards and frameworks on sustainability reporting (see section III.D).

UNCTAD monitoring focuses on the climate actions and approach to climate risk management taken by the leading funds. It is based on the publicly available reports of the 57 reporting funds in the top 100.

## 1. Climate-related actions of public pension and sovereign wealth funds

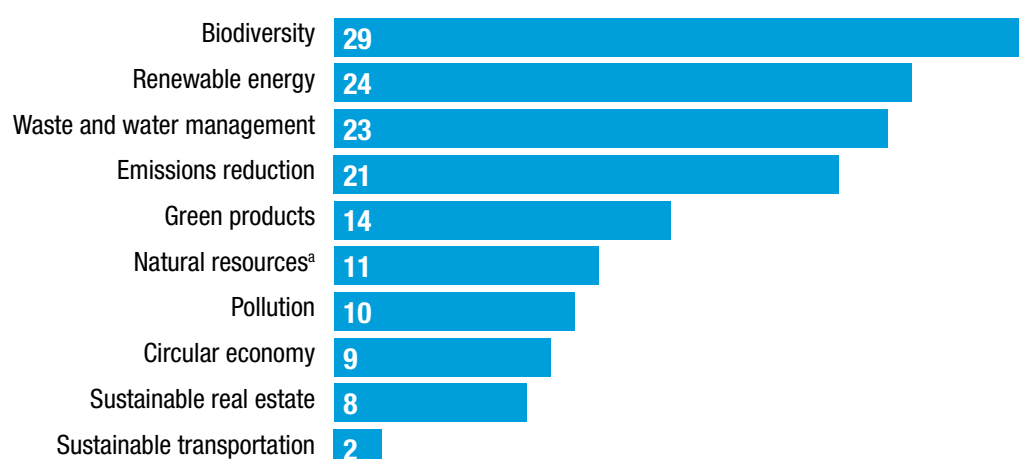
A broad range of environmental considerations continue to shape the investment strategies of PPFs and SWFs, with biodiversity, renewable energy, and waste and water management emerging as key focus areas in 2024 (figure III.14). These priorities reflect the increasing alignment of funds with global sustainability goals, regulatory developments and investor expectations.

At the regional level, there are variations in the integration of climate and other

environmental themes. In developing economies, renewable energy stands out, as countries seek solutions to the energy transition, such as the leveraging of green bonds by Chinese and Malaysian funds for sustainable projects. Funds in the Asia-Pacific region also place significant emphasis on climate adaptation, the circular economy and decarbonization, with funds in the Republic of Korea and Singapore in particular focused on energy efficiency.



**Figure III.14**  
**Climate and environmental priorities of reporting funds in 2024**  
Number of reporting funds;  $n = 57$



Source: UNCTAD, based on latest fund reporting (2024); some latest reports from 2023.

<sup>a</sup> Natural resources includes categories on raw materials, conservation, forestry, agriculture, and resource management.



In Europe, biodiversity conservation and circular economy practices have become important themes, with funds emphasizing nature-based solutions, as well as renewable energy and decarbonization. This trend has been reinforced by the ongoing efforts of the European Union to expand its green taxonomy to encompass a wider range of environmental and social issues. North American funds have focussed on emissions reduction and sustainable infrastructure, with some funds increasing their investments in low-carbon technologies and pollution control. These regional variations highlight how environmental investment priorities are shaped by local economic and policy contexts.

### a. Investment strategies

The climate crisis continues to influence SWF and PPF investment strategies. Reporting funds emphasize investment in green sectors over divestment from fossil fuel, with energy and decarbonization as the leading targets for sustainable investment. Major funds such as NBIM (Norway), PIF (Saudi Arabia) and GPIF (Japan) apply a broad range of sustainability considerations: for example, acquiring climate technology, circular economy businesses and sustainable agriculture assets in their portfolios. Although funds acknowledged biodiversity as a priority, translating it into an investment strategy remains a challenge, owing to the lack of structured financial instruments supporting this sector (Principles for Responsible Investment, 2020).

While more than 90 per cent of funds have set investment targets in renewable energy and other green sectors, only one in eight had established specific targets for fossil fuel divestment for 2024 – a modest increase from the preceding year. This indicates a stronger emphasis on positive investment strategies rather than exclusionary policies. Instead of fully divesting from fossil fuel holdings, many funds adopt negative screening approaches, particularly targeting thermal coal, high-carbon industries or companies that exceed emission thresholds.

This approach is more common among European funds, while North American and Asia-Pacific funds tend to prioritize engagement and selective exclusions. Overall, the trend points to a preference for screening and active stewardship over rapid divestment, aligning more closely with a gradual transition strategy.

### b. Engagement, targets and modelling

Institutional investors employ several key mechanisms to influence corporate climate action, such as direct voting on climate issues, engaging with companies, setting net zero targets and conducting climate risk analysis of their assets. Another critical strategy is directing investment towards domestic climate initiatives, supporting projects that align with national and regional sustainability goals.

Some 84 per cent of funds reported having a voting policy or guidelines focused on climate or ESG issues, with some funds aligning their voting policy with the Paris Agreement. Funds are prioritizing resolutions related to carbon emissions disclosure, corporate decarbonization targets and net zero transition strategies, in line with their broader focus on climate-related issues, ESG considerations and corporate governance.

A few funds, such as the New York State Common Retirement Fund, have integrated climate-related voting policies in their portfolio management, exercising voting rights on shareholder resolutions aimed at improving corporate climate transparency. Australian and Northern European funds report the intention to engage with companies and investment stakeholders, influencing their ESG policies and practices.

This highlights the importance of public markets for maintaining transparency and the benefits for institutional investors of making informed decisions and managing climate-related financial risks. Countries with strong regulatory frameworks tend to have more transparent institutional

Only one in eight funds had **specific targets for fossil fuel divestment** for 2024



investors, as they implement better regulations that enforce disclosure and accountability. Moreover, the international reach of funds can expose them to transparency requirements in host countries, forcing them to align with local regulations and governance standards (Amar and Lecourt, 2023).

About three quarters of reporting funds have committed to achieving net zero emissions in their portfolios by 2050, through a combination of decarbonization and offsets. European funds such as NBIM (Norway) and PGGM (Netherlands) are leading examples, with interim reduction targets for 2030. Some funds, such as Temasek (Singapore) and QIC (Australia), combine decarbonization with carbon offsets, whereas other funds (e.g. in China and the Middle East) align with national climate targets but still lack detailed transition pathways.

Over 90 per cent of reporting funds undertake some form of climate risk assessment, with over 60 per cent of funds reporting the use of more in depth, systematic climate scenario analysis. About 40 per cent of funds conduct stress testing, which includes portfolio assessments, and roughly one in three funds that conduct stress testing also integrate carbon measurement. Such assessments are complementary, and some funds do all three. Conducting scenario

analysis, for example of the impact of a 1.5° Celsius versus a 2° Celsius climate warming pathway, provides greater granularity with respect to current and future climate risks. Implementing climate risk assessment frameworks can enhance resilience, while helping funds assess both transition and physical risks, as well as identify potential opportunities (table III.2).

One effective approach to analysing climate risks is to follow the guidelines of the Task Force on Climate-related Financial Disclosures (TCFD) or other frameworks such as the Network for Greening the Financial System (box III.4). Systematically integrating climate risk monitoring and management into investment decision-making can ensure that long-term investors, including SWFs and PPFs, support the transition to a carbon-neutral economy, while mitigating physical and transition risks associated with climate change (UNCTAD, 2023a).

Most funds (79 per cent) have a mandate for climate-related investments, primarily in renewable energy, sustainable infrastructure and green real estate. There are some regional differences in sustainability commitments, with funds from Europe and Asia-Pacific having the strongest mandates.

Renewable energy projects dominate in terms of domestic mandates and investments. The Saudi Arabia SWF



**Table III.2**  
**Climate risk assessment strategies of reporting funds in 2024**  
Number of funds by type of strategy  
(*n* = 53)

| Category                           | Number of funds |
|------------------------------------|-----------------|
| Climate scenario analysis          | 35              |
| Climate risk analysis <sup>a</sup> | 31              |
| Stress testing <sup>b</sup>        | 21              |

Source: UNCTAD (2025).

<sup>a</sup> Climate risk analysis includes transition and physical risks.

<sup>b</sup> Stress testing includes portfolio testing.



(PIF) plays a central role in Saudi Vision 2030, as it finances solar, wind and green hydrogen plants in the country, as well as desalination projects powered by renewable energy. Similarly, the Kazakhstan SWF (Samruk-Kazyna) is developing 6 gigawatts of wind and solar capacity in the country, including large-scale projects with global partners, alongside water and gas infrastructure to reduce coal dependence.

Sustainable infrastructure and smart urban projects are also key investment areas. ADQ (United Arab Emirates) supports industrial decarbonization and infrastructure efficiency projects that align with national net zero targets (ADQ, 2024). Similarly, in Canada, the British Columbia PPF (BCI) invests in low-carbon district energy systems that integrate sustainability into local development (box III.4).



#### Box III.4 Sustainable investment practices of BCI, Canada

British Columbia Investment Management Corporation (BCI) integrates environmental sustainability at the core of its investment strategy, ensuring that ESG considerations guide asset allocation across all investment classes.

A key focus of the fund's environmental commitment is climate resilience. To incorporate climate change risks into decision-making, the fund uses scenario analysis in line with the Network for Greening the Financial System. Such analyses enable assessment of physical risks such as extreme weather events, as well as transition risks arising from policy changes.

As part of efforts to attain net zero operating, the fund reduced the carbon footprint of its portfolio by 40 per cent, from its 2019 baseline. The fund also invests in renewable energy, supporting solar, wind and biofuel projects through partnerships with clean energy-focused companies, some of them in developing countries. In addition, the fund has invested more than \$5 billion in sustainable bonds, contributing to sectors such as clean transport, water management and energy efficiency.

*Source:* BCI (2024).

## 2. Sustainability disclosure by funds

To support their disclosure and reporting efforts, institutional investors are using a number of sustainability frameworks that are helping to improve transparency and accountability. The International Sustainability Standards Board (ISSB), established by the International Financial Reporting Standards (IFRS) Foundation, now oversees both the TCFD recommendations and the Sustainability Accounting Standards Board (SASB). This consolidation aims to provide a global baseline for sustainability reporting. In 2024, 40 funds reported using a combination of the TCFD, SASB and ISSB frameworks, highlighting the growing importance of these standards for

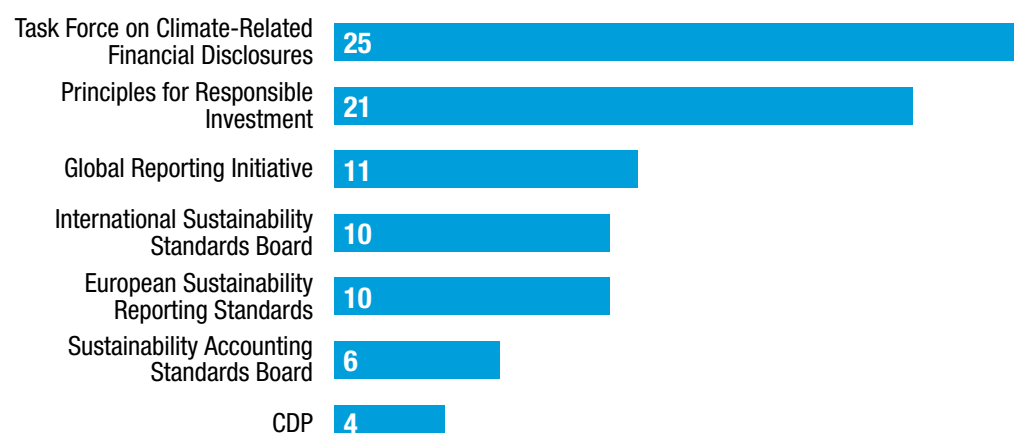
sustainability disclosure and integration. The Principles for Responsible Investment remain a key reference as funds continue to integrate sustainability into financial decision-making (figure III.15).

Many European funds also referenced other frameworks, including the Global Reporting Initiative (GRI) and the European Sustainability Reporting Standards (ESRS), which include the Corporate Sustainability Reporting Directive (CSRD). Despite a high degree of alignment among the standards and frameworks used by the funds, the ongoing fragmentation highlights the need for further harmonization to improve the





**Figure III.15**  
**International reporting frameworks used by funds**  
Number of reporting funds by framework ( $n = 50$ )



Source: UNCTAD (2025).

Note: The Sustainability Accounting Standards Board and the Task Force on Climate-Related Financial Disclosures have been integrated into the International Sustainability Standards Board since 2022 and 2023, respectively. The European Sustainability Reporting Standards includes the Corporate Sustainability Reporting Directive and the EU Taxonomy. The CDP was formerly the Climate Disclosure Project.

comparability of sustainability data across funds. The adoption of ISSB Standards S1 and S2 is a positive step towards achieving this harmonization, but further efforts are required to standardize reporting practices and enhance transparency. One distinction remains the difference between voluntary (GRI, ISSB) and mandatory (ESRS) disclosure, which could influence the direction of harmonization efforts.

The reporting metrics used by funds are more comprehensive for climate-related disclosures. A large majority – 90 per cent – of reporting funds use standardized climate metrics to assess the sustainability performance of their portfolio. Total carbon emissions and carbon intensity are the key performance indicators most commonly used by funds. These metrics serve complementary purposes, as total carbon emissions measure the absolute carbon footprint of investments, whereas carbon intensity (emissions per unit of investment or revenue) enables more meaningful comparison between funds of different sizes and across different time periods.

This reporting aligns with global frameworks such as TCFD, helping funds assess their exposure to carbon-intensive assets. Several funds, including OMERS (Canada) and Australian Retirement (Australia), explicitly use climate metrics to track progress toward net zero targets within their portfolios. Although many funds incorporate other key performance indicators for sustainability, these focus primarily on environmental and governance metrics, with social indicators receiving limited emphasis.

One way to improve the relevance, transparency and credibility of reporting is through the use of external auditing – a mandatory requirement for financial performance. As of 2024, nearly half (47 per cent) of funds have their reporting audited by an independent external party. This is up from 25 per cent in 2023, indicating a growing commitment to transparency and accountability in sustainability reporting. Northern European countries continue to lead in external audits, with all Dutch funds reporting the use of external verification. North American funds are



making progress, with about half of funds undergoing independent verification. In Asia, efforts to improve audit practices are strengthening, with Chinese funds emerging as leaders in the use of external auditing.

In November 2024, the International Standard on Sustainability Assurance 5000 from the International Auditing and

Assurance Standards Board (IAASB) was issued, establishing a global baseline for sustainability assurance engagement (see section III.D). By providing a consistent framework for assessing the relevance, reliability and comparability of reported information, it enhances trust and confidence in sustainability reporting.



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## D. Policies, regulations and standards

**Sustainable finance standard-setting and policymaking maintained momentum in 2024. Key focus areas included sustainability disclosure, national strategies, and sector- or product-specific measures aimed at leveraging sustainable bonds, banking and carbon markets for climate financing. Developed economies, in particular the European Union, continued strengthening sustainable finance regulatory frameworks, while policy backlash grew in other advanced economies. Developing economies advanced taxonomies, carbon pricing and climate finance frameworks. To scale up sustainable finance in these economies will require reforms of multilateral banks, stronger climate strategies and increased investment flows, including de-risking and blended finance mechanisms.**

### 1. International standard-setting and reporting trends

The global sustainability standards ecosystem has recently seen several developments, from complementary angles, aimed at reinforcing transparency and ensuring credibility in relation to sustainability reports. At the end of October 2024, the International Public Sector Accounting Standards Board (IPSASB) issued its first Sustainability Reporting Standards exposure draft, titled “Climate-related Disclosures”. Using the multistakeholder focus of the TCFD, IFRS S2 and GRI as a basis, the exposure draft proposes requirements for public sector entities to report on climate-related risks and opportunities related to their own operations, as well as requirements for climate-related public policy programmes and their outcomes (IPSASB, 2024). The UNCTAD Intergovernmental Working Group of Experts on International Standards of Accounting and Reporting (ISAR) organized a virtual consultative meeting

to discuss the exposure draft and outline a response, bringing together the views of its experts and its formal membership. The ISAR feedback covered not only the substance of the proposed standard, but also implementation issues and developing-country perspectives, including inputs from ISAR’s Regional Partnerships.

Concerning the private sector, an increasing number of countries have already adopted ISSB Standards and many others are working on adoption or on adaptation of the standards to local needs. According to the ISSB, at the end of 2024, 33 jurisdictions (including the European Union) had adopted or adapted (amended) IFRS S1 and IFRS S2 or were in the process of conducting a consultation to introduce the standards.

With a view to enhancing the reporting of climate-related and other sustainability risks in financial statements, in July 2024, the IASB published for comments eight



illustrative examples containing information on materiality judgements, disclosures about assumptions and estimation uncertainties, and disaggregation of information (IASB, 2024). The IASB will review and discuss the comments received to make a decision on the project's direction.

Now that the initial universal standards are being implemented by a large number of countries and issuers, a series of topic and sector standards are being developed to guide detailed sustainability disclosures and metrics. In this regard, the ISSB has conducted research to find out the state of entities' disclosure about biodiversity, ecosystem and ecosystem services (BEES) (IFRS Sustainability, 2025a) and human capital-related risks and opportunities (IFRS Sustainability, 2025b). The ISSB is also looking at the degree of alignment of such disclosures with the requirements of IFRS S1 and which BEES and human capital-related topics are sector based or universally applicable. In the next phase of these projects, the ISSB will discuss the need and feasibility of developing standards on these issues.

For its part, the GRI is consulting on a new set of sector standards for financial services. The public consultation includes three exposure drafts on sector standards for banking, capital markets and insurance (GRI, 2025a). In addition, a new standard on textile production, apparel and footwear is in development. Moreover, GRI has published for comment two topic standards: Training and Education, and Working Parents and Caregivers (GRI, 2025b). Likewise, the Taskforce on Nature-related Financial Disclosures issued four additional sector guidance documents, in June 2024, that supplement its guidance on assessment of nature-related issues. The documents cover aquaculture, biotechnology and pharmaceuticals, electric utilities and power generators, and food and agriculture (TNFD, 2024).

To reduce greenwashing and other unethical behaviour and foster trust in sustainability reports, the IAASB issued, in November 2024, a new International Standard on Sustainability Assurance 5000, General Requirements of Sustainability Assurance Engagements (IAASB, 2024). Similarly, in January 2025, the International Ethics Standards Board for Accountants (IESBA) published the International Ethics Standards for Sustainability Assurance (including International Independence Standards), revisions to the Code of Ethics relating to sustainability assurance and reporting, and a new standard on using the work of external experts (IESBA, 2025). These assurance and ethics standards are applicable across a range of sustainability topics; they are framework neutral and profession agnostic.

Against this background, countries need a robust reporting ecosystem capable of rapidly adopting or adapting sustainability reporting standards and other related requirements. However, many developing countries with weak reporting infrastructure need technical assistance to make the necessary changes and build capacity so as to be ready to produce high-quality sustainability reports. UNCTAD is supporting countries' efforts to reinforce their sustainability reporting infrastructure and is also collaborating with the ISSB and other key international organizations and institutions to facilitate capacity-building. The ISSB is working to support the implementation of IFRS S1 and S2. For this purpose, it has made available educational materials, webinars and webcasts. UNCTAD has also facilitated the creation of five regional partnerships for the promotion of reporting on sustainability and the Sustainable Development Goals, in Africa, Asia, Eurasia, Latin America, and the Gulf States and neighbouring countries. The partnerships foster exchanges of experience, consultations among peers and identification of good practices.

Many developing countries with weak reporting infrastructure need **capacity-building support to produce high-quality sustainability reports**



## 2. Sustainable finance policy and regulation trends

### a. Overview

Recent developments in sustainable finance policymaking and regulation play an important role in shaping global economic transformation. There has been greater commitment by national and regional governments to implementing policies and regulatory frameworks related to sustainable finance.

According to the UNCTAD Global Sustainable Finance Observatory, such policymaking continued to advance in 2024. In total, 73 sustainable finance policy measures were adopted by members of the Group of 20 as well as 15 leading developing economies and selected financial

centres outside the group, representing more than 93 per cent of global gross domestic product (figure III.16). In total, this group of economies had adopted more than 580 policy measures dedicated to sustainable finance by the end of 2024.

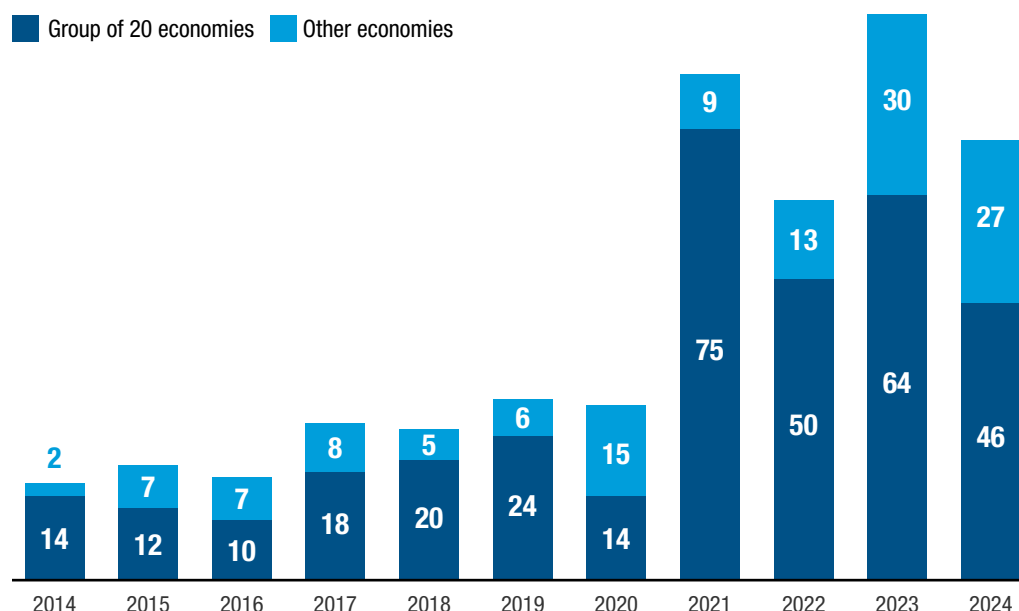
Of all the measures enacted by these countries from 2015 to 2024, sustainability disclosure was the most common policy category, accounting for 32 per cent of all measures. It was followed by national strategies and frameworks, with countries increasingly integrating sustainable finance into national development strategies and making it an important tool to meet commitments made under the Paris Agreement. Sector-specific measures



**Figure III.16**

### Sustainable finance policymaking maintains momentum in 2024

Number of measures adopted by year



Source: UNCTAD Global Sustainable Finance Observatory (GSFO.org), based on UNCTAD, Principles for Responsible Investment and World Bank data.

Notes: Regulations and policy measures encompass seven key policy areas for sustainable finance: national strategy, national framework and guidelines, taxonomy, product standards, sustainability disclosure, sector-specific regulations, and carbon pricing. Other selected economies and territories include Switzerland, as well as 13 developing economies (Bangladesh, Chile, Colombia, Egypt, Kenya, Malaysia, Nigeria, the Philippines, Singapore, Thailand, the United Arab Emirates and Viet Nam, as well as Hong Kong, China), and ASEAN. Relevant measures of the European Union are included in the number for the Group of 20. The number of policy measures in 2021 was updated to include incentive-related measures.



(covering sustainable banking, insurance, and asset management) and product-specific measures (including sustainable bonds and funds) represented roughly a third of all policy measures (figure III.17).

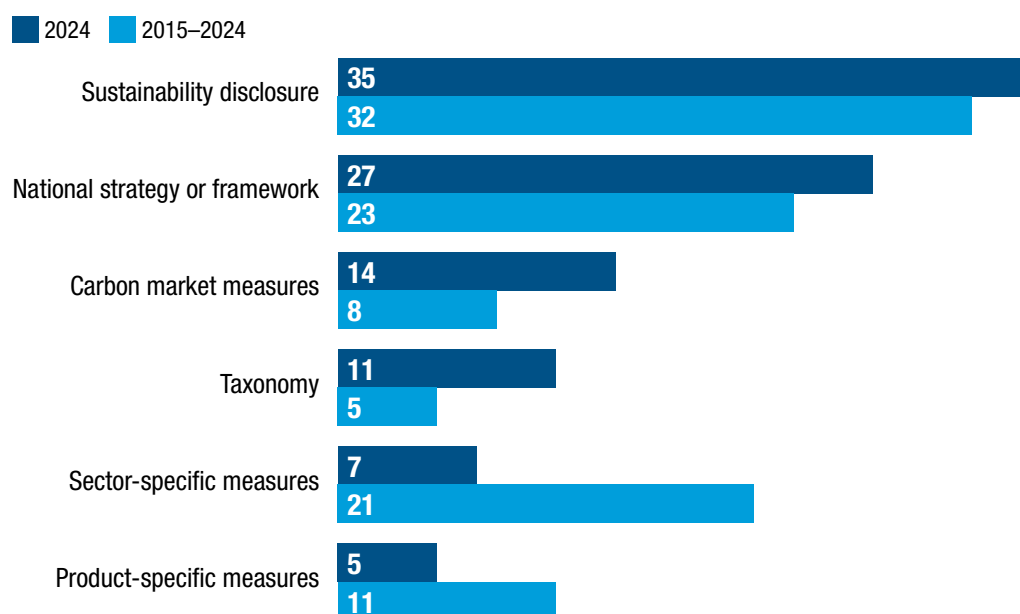
In 2024, sustainability disclosure and national strategies or frameworks remained the most active areas of policymaking, accounting for 35 per cent and 27 per cent

of all measures, respectively. Meanwhile, policymaking in carbon market measures gained strong momentum, representing 14 per cent of all measures, driven primarily by efforts in developing economies to harness the potential of carbon markets (section III.B). In addition, taxonomy development remained an active area of policymaking, particularly in developing economies.



**Figure III.17**  
**Sustainability disclosure measures remain the most common policy category**

Sustainable finance policy measures by category  
(Percentage)



Source: UNCTAD Global Sustainable Finance Observatory (GSFO.org).

## b. Regional developments

In 2024, sustainable finance policymaking progressed steadily in many developed economies. While the European Union focused on policy consolidation and regulatory refinement, other developed economies took further steps to address greenwashing concerns and enhance market credibility, particularly through standard-setting and taxonomy development. In the United States, new policy measures related to sustainable

finance were suspended, which highlights a growing divergence in policymaking among developed economies.

### i. Europe

The European Union continued building a comprehensive regulatory framework and made efforts to consolidate its sustainable development regulations. In December 2024, it introduced the European Green Bond Standard, a voluntary framework designed to enhance transparency and



The European Union is building a comprehensive regulatory framework and consolidating its sustainable development regulations

accountability in the green bond market. The standard mandates the proceeds of green bonds to be allocated to activities aligned with the EU Taxonomy, ensuring that investments contribute substantially to environmental objectives. In November, the European Union adopted a regulation on ESG rating. The regulation established a supervisory framework for ESG rating providers, requiring them to be transparent about their methodologies and to avoid conflicts of interest, with the aim of enhancing the quality and reliability of ESG ratings. In addition, the European Union has initiated a comprehensive review of the three pillars of its sustainability disclosure framework – the CSRD, the Corporate Sustainability Due Diligence Directive and the EU Taxonomy Regulation – with the aim of streamlining and consolidating sustainability reporting through new “omnibus legislation” (European Union, 2025a).

In February 2025, the European Commission adopted a package of proposals to simplify European Union rules, improve competitiveness and promote additional investment capacity (European Union, 2025b). These proposals cover sustainability reporting, sustainability due diligence, EU Taxonomy, the carbon border adjustment mechanism and European investment programmes. One of the key changes in relation to sustainability reporting that affects the CSRD and the EU Taxonomy is the removal of about 80 per cent of companies from the scope of the CSRD, focusing on the biggest companies with the greatest impacts on the economy, people and environment. The changes also seek to ensure that the reporting requirements on large companies do not overload smaller companies in their value chains.

On 17 December 2024 the European Financial Reporting Advisory Group delivered the Voluntary Reporting Standard for non-listed small and medium-sized enterprises (SMEs). The standard is a simple and

standardized framework expected to help non-listed SMEs to report on ESG issues and to obtain better access to lenders, investors and clients (EFRAG, 2024).

In the United Kingdom, the Government launched a £100 million seed fund to support businesses in investing in the Sustainable Development Goals and in climate mitigation and adaptation both in the United Kingdom and in developing countries.<sup>3</sup> The Government also started consultation on a UK Green Taxonomy and adopted anti-greenwashing guidance for the investment industry.

## ii. Developed Asia-Pacific

In Australia, an important development was the establishment of the Australian Sustainable Finance Taxonomy, which will be implemented in mid-2025, as outlined in the Government's 2024 Sustainable Finance Road Map. The taxonomy is intended to assess and promote green investment, which is critical to attracting global capital. In addition, Australia prepared for the launch of a mandatory climate disclosure framework in January 2025, aiming to further align the country with global sustainability goals through the Treasury Laws Amendment Act 2024.

The Japanese Government introduced its Green Transformation Plan in 2023. It aims to achieve net-zero GHG emissions by 2050 and includes the issuance of climate transition bonds, which began in 2024. In February 2025, the Government approved the Seventh Strategic Energy Plan, which sets a 2040 target to reduce GHG emissions by 73 per cent from 2013 levels. In terms of climate disclosure, the Sustainability Standards Board of Japan is developing standards in line with those of the ISSB, which are expected to be finalized by March 2025.

<sup>3</sup> New partnerships with financial sector to unlock growth in UK and overseas. [https://www.gov.uk/government/news/new-partnerships-with-financial-sector-to-unlock-growth-in-uk-and-overseas?utm\\_source=chatgpt.com](https://www.gov.uk/government/news/new-partnerships-with-financial-sector-to-unlock-growth-in-uk-and-overseas?utm_source=chatgpt.com).



### iii. North America

In Canada, the Government announced plans to amend the Canada Business Corporations Act to require companies to disclose climate-related financial information. In addition, it is developing “Made in Canada” sustainable investment guidelines. They will serve as a sustainable investment taxonomy to provide guidance on investing in green or transition economic activities by establishing scientifically determined eligibility criteria for relevant sectors. In March 2025, Canada abolished the consumer carbon tax, but as of April 2025 the carbon price on businesses remains in place.

In the United States, progress was made in the implementation of the 2022 Inflation Reduction Act, with investment in clean technology totalling \$493 billion, a 71 per cent increase from the two-year period preceding the Act (Bermel et al., 2024). Regarding market regulation, the Securities and Exchange Commission developed rules requiring public companies to disclose climate-related risks and GHG emissions in their filings but suspended its enforcement because of ongoing federal litigation (The Wall Street Journal, 2025). The Commission also expanded the “Names Rule” under the Investment Company Act, which requires registered investment funds with names that suggest a focus on specific characteristics, including ESG factors, to invest at least 80 per cent of their assets accordingly.<sup>4</sup> In January 2025, the United States declared its withdrawal from the Paris Agreement and the rollback of environmental regulations, including a halt to clean energy projects and the promotion of fossil fuel extraction.<sup>5</sup>

### iv. Developing economies

Sustainable finance policymaking remained highly active in developing economies. In 2024, these economies accounted for approximately 60 per

cent of new policy measures adopted by countries monitored by the UNCTAD Global Sustainable Finance Observatory. Developing economies such as Brazil, India, Kenya and Malaysia continued to roll out national strategies and frameworks for sustainable finance, focusing on integrating sustainable investment into national development strategies and establishing comprehensive policy frameworks.

In 2024, Hong Kong (China), Indonesia and Singapore implemented sustainable finance taxonomies, and ASEAN introduced Version 3 of its regional taxonomy. The new version incorporates technical screening criteria for six focus sectors and three enabling sectors, to improve sector-specific guidance and align sustainable finance standards across ASEAN. Kenya is in the process of developing its Green Finance Taxonomy. These initiatives represent progress in promoting sustainable investment through clear and standardized frameworks and classification systems.

Another notable trend is the rise of carbon market policymaking in developing economies. Brazil, Chile, Egypt, Kenya, Thailand and Viet Nam introduced new carbon pricing mechanisms or initiatives, in 2024, reflecting a growing commitment to leveraging carbon markets to finance the green transition (see section III.B).

In China, further efforts were made to further strengthen its sustainable finance regulatory framework. In August 2024, the central bank announced the extension of its low-carbon lending tool until the end of 2027, with continued provision of low-cost loans to support companies in reducing carbon emissions. In September, China revealed plans to expand its ETS to include the steel, cement and aluminium sectors, covering approximately 60 per cent of its GHG emissions. In December, the Ministry of Finance, in collaboration with nine other departments, released its Corporate

Policy commitments in developing economies are leveraging **carbon markets to finance the green transition**

<sup>4</sup> U.S. Securities and Exchange Commission (2025). Final Rule (33-11238A). 20 March. <https://www.sec.gov/rules-regulations/2025/03/s7-16-22#33-11238Afinal>.

<sup>5</sup> The Financial Times (2025). Donald Trump says he will withdraw US from Paris climate accord. 20 January. <https://www.ft.com/content/cc7f60ea-6f42-49d0-8fde-5151e170c780>.



Sustainability Disclosure Standards – Basic Standards. The framework provides guidance for businesses to align their sustainability practices with global ESG expectations, marking a critical step

towards a unified national ESG reporting system. The standards were based on IFRS S1, helping to move towards alignment with international practices.

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**Collaborative efforts can grow the voluntary carbon market and enhance market liquidity, while harmonizing standards**

Faced with the challenges of developing capital markets and promoting sustainable finance, countries need to address a common set of policy options that target reporting and transparency, standard-setting and regulation, and institutional and market development. At the global level, action is needed to channel the flow of capital from the Global North to the South, leveraging public and private sources and better aligning NDCs with international sources of finance and investment. Sustainable investment products, such as sustainable bonds and funds, and the carbon market can play important roles in this regard.

Accurately labelling sustainable products and ensuring that the quality of the product meets recognized standards are key for investor confidence and for the development of capital markets in all countries. With regard to sustainable bond issuance in developing countries, clear guidelines and taxonomies are essential for buyers to assess the sustainability credentials of products or their use of proceeds. From the issuer side, however, high verification and certification costs to meet international green bond standards can discourage smaller issuers that lack the expertise in their country.

Currency risk also remains a significant obstacle for many developing-country issuers that can be mitigated by issuance of local currency debt. However, high debt levels in some developing countries raise concerns about credit risk, which in turn can lead to higher borrowing costs. These factors contribute to the perception that green bonds from developing countries

carry higher risk, often resulting in lower investor demand, lower bond prices and higher yields demanded by the buyer.

With regard to carbon markets, the question of investor confidence is also key. Concerns remain about the credibility of carbon offset projects, with economies needing to standardize validation and certification processes. Related to this, and given the fragmentation of international standards, international cooperation on standards and process harmonization, particularly through international frameworks such as the Core Carbon Principles, is crucial to improving market credibility and enhancing market efficiency. Regional cooperation can also play a crucial role in overcoming technical barriers. By sharing technology, resources and capacity-building initiatives, countries can reduce implementation costs for carbon markets. Collaborative efforts, including under Article 6 of the Paris Agreement, can also expand market size and enhance market liquidity, while facilitating the harmonization of standards.

Cross-border transactions are also essential for linking developing economies to global carbon markets. At present, very few CCMs allow the use of international credits for offsets. Adopting an offset mechanism that links VCMs with compliance markets in developed economies, while safeguarding the quality of carbon credits based on international standards, could expand the demand for carbon credits, while maintaining the goal of raising prices and enabling developing countries to access international funding. Meanwhile, developing economies also need to develop a clear policy stance



to encourage cross-border transactions through VCMs, in line with Article 6 of the Paris Agreement, while using CCMs as the primary tool for mandatory carbon emission reductions to fulfil their NDCs.

Implementing robust regulations is essential to enhancing market transparency and credibility, ensuring that sustainable finance products genuinely align with sustainability goals while addressing persistent concerns about greenwashing. Well-defined product standards and disclosure requirements play a critical role in this process. At the same time, strengthening regulatory frameworks for verification and impact assessment would further enhance investor confidence and attract long-term capital to climate-aligned projects in emerging markets.

Despite greater policymaking efforts in developing economies, sustainable investment flows to these economies remain low. Whereas developed economies attracted 84 per cent of climate finance, emerging and developing economies accounted for only 14 per cent of global climate finance, and least developed countries accounted for just 2 per cent in 2023 (CPI, 2023). Multilateral development banks and vertical climate and environmental funds, such as the Green Climate Fund, the Global Environment Facility and the Climate Investment Funds, play a pivotal role in addressing the climate finance needs of developing economies. Expanding the use of blended finance mechanisms and strengthening guarantee schemes can also help de-risk investments and attract private capital to developing economies (UNCTAD, 2023b). The collaboration among multilateral development banks, vertical funds and national stakeholders, such as national development banks and SWFs, is crucial for scaling up climate finance.

Consensus on the mechanisms to achieve a scaling-up of sustainable finance, especially in developing countries, has been growing and is reflected by processes such as the Financing for Development Conference, with the fourth conference (FfD4) taking place in July 2025, and the Conference

of the Parties of the United Nations Framework Convention on Climate Change (UNFCCC), with the 30th meeting (COP30) taking place in Brazil in November 2025.

The Financing For Development Conference calls for systemic financial transformation. Amid widening financing gaps and structural challenges, Member States are calling for deep reforms to the international financial architecture, aiming to triple lending by multilateral development banks through tools such as hybrid capital and rechanneled special drawing rights, with a focus on attracting private finance at scale. Reinforcing multilateral cooperation is seen as essential for unlocking capital, addressing systemic risks, and ensuring fair and inclusive global economic governance (United Nations, Department of Economic and Social Affairs, 2025).

The Conference aims to foster global use of a sustainability investment lens and to support innovative financing instruments. It emphasizes the need for greater integration of sustainability by all investors, including sovereign and public investors. To improve disclosure and reporting, the Conference promotes the adoption of international standards and the refinement of measurements of sustainability performance. Aligning national sustainable finance regulations with international standards and improving the interoperability of standards are key to boosting the market and leveraging sustainable finance flows in order to close the gap in financing progress towards the Sustainable Development Goals.

With the third round of NDCs under way, countries are expected to strengthen their climate action plans and targets up to 2035. This process presents a unique opportunity to raise ambitions and improve the “investability” and impact of national climate strategies. A key step in achieving this is to embed detailed, sector-specific transition plans in the NDCs, with clear decarbonization targets, timelines and associated investment requirements. Providing this clarity helps investors direct

In this NDC review round, countries should strengthen the **“inevitability” of climate action plans and strategies**



their contributions where they can have the greatest impact. In addition, governments need to enhance policy predictability by fostering stable and transparent regulatory environments, thereby facilitating private investment and encouraging long-term commitments. In addition to mitigation, the agreements reached at COP29 underline the importance of integrating adaptation into national climate strategies and policies to strengthen resilience and reduce vulnerability to climate change (UNFCCC, 2024).

Capacity-building support is essential to promote a conducive environment for sustainable investment in developing countries. Technical assistance programs should focus on helping developing economies to meet international standards for sustainability compliance. This includes training on sustainability reporting, developing robust capital market

architecture and establishing regulatory frameworks that support the creation of an enabling ecosystem. Towards this end, UNCTAD provides support to developing countries, including technical assistance, as well as research and monitoring on sustainability standards and reporting, policymaking and institutional investment.

Looking ahead, the outlook for sustainable finance hinges on translating recent momentum into scaled, credible and inclusive investment flows – particularly in developing economies. As global attention shifts towards FfD4 and COP30, delivering on sustainability goals will require converting high-level NDC commitments into actionable investment and financing strategies, closing institutional and capacity gaps, and ensuring the transition to a resilient and equitable financial system.



## References

- ADQ (2024). *Sustainable Investing Report 2023/2024*. See [www.adq.ae](http://www.adq.ae).
- Amar J and Lecourt C (2023). Sovereign wealth fund governance: A trade-off between internal and external legitimacy. *International Business Review*. 32(6):102193. <https://doi.org/10.1016/j.ibusrev.2023.102193>.
- AXA Investment Managers (2025). The good, the bad, the opportunities: Green bonds in 2025. Investment Institute blog. 22 January.
- BCI (2024). *Annual Report 2023–2024*. See [www.bci.ca](http://www.bci.ca).
- Bermel L et al. (2024). Clean Investment Monitor: *Tallying the two-year impact of the Inflation Reduction Act*. Rhodium Group and MIT Center for Energy and Environmental Policy Research. See [www.rhg.com](http://www.rhg.com).
- Deloitte (2024). *Investor Trust in Sustainability Data: An Opportunity for Corporate Leaders*. Deloitte & Touche and The Fletcher School at Tufts University.
- Brazil, National Treasury (2024). *Brazil's Sovereign Sustainable Bonds: Allocation and Impact Report*. Available at <https://www.tesourotransparente.gov.br/publicacoes/allocation-and-impact-report-relatorio-de-alocacao-e-impacto-ingles/2024/26>.
- CBI (Climate Bonds Initiative) (2023). *Sustainability-linked bond database: Methodology*. Available at [https://www.climatebonds.net/files/files/CBI\\_Method\\_SLBD.pdf](https://www.climatebonds.net/files/files/CBI_Method_SLBD.pdf).
- CBI (Climate Bonds Initiative) (2024a). Sustainable debt market: Summary H1 2024. August. See [www.climatebonds.net](http://www.climatebonds.net).
- CBI (Climate Bonds Initiative) (2024b). Sustainable debt market: Summary Q3 2024. November. See [www.climatebonds.net](http://www.climatebonds.net).
- Chouard V and Jourde T (2024). Green premium: Can firms fund their green projects at a lower cost? Eco Notepad. Banque de France. 13 December. Available at <https://www.banque-france.fr/en/publications-and-statistics/publications/green-premium-can-firms-fund-their-green-projects-lower-cost>.
- CPI (Climate Policy Initiative) (2023). *Global Landscape of Climate Finance 2023*. See [www.climatepolicyinitiative.org](http://www.climatepolicyinitiative.org).
- Ecosystem Marketplace (2024). *State of the Voluntary Carbon Market 2024: On the Path to Maturity*. See [www.ecosystemmarketplace.com](http://www.ecosystemmarketplace.com).
- EFRAG (European Financial Reporting Advisory Group) (2024). Voluntary reporting standard for SMEs (VSME). See <http://www.efrag.org/>.
- European Union (2021). Regulation (EU) 2021/241 of the European Parliament and of the Council of 12 February 2021 establishing the Recovery and Resilience Facility. See [www.eur-lex.europa.eu](http://www.eur-lex.europa.eu) (accessed 14 March 2025).
- European Union (2023). Regulation (EU) 2023/2631 of the European Parliament and of the Council of 22 November 2023 on European Green Bonds and optional disclosures for bonds marketed as environmentally sustainable and for sustainability-linked bonds. See [www.eur-lex.europa.eu](http://www.eur-lex.europa.eu) (accessed 3 March 2025).



- European Union (2025a). Commission simplifies rules on sustainability and EU investments, delivering over €6 billion in administrative relief. 26 February. Available at [https://ec.europa.eu/commission/presscorner/detail/en/ip\\_25\\_614](https://ec.europa.eu/commission/presscorner/detail/en/ip_25_614)(accessed 3 March 2025).
- European Union (2025b). Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions: A Competitiveness Compass for the EU. 29 January. Available at [https://commission.europa.eu/document/download/10017eb1-4722-4333-add2-e0ed18105a34\\_en](https://commission.europa.eu/document/download/10017eb1-4722-4333-add2-e0ed18105a34_en).
- GFIEF (Global Forum on Islamic Economics and Finance) (2024). *Shaping a Resilient Global Islamic Economy Through Values-Based Reforms*. Event report. See [www.mifc.com](http://www.mifc.com).
- GRI (Global Reporting Initiative) (2025a). Unlocking financial transparency for responsible business practices. 5 March. <https://www.globalreporting.org/news/news-center/unlocking-financial-transparency-for-responsible-business-practices/>.
- GRI (Global Reporting Initiative) (2025b). People are your greatest asset: transparency for labor impacts. 25 February. See [www.globalreporting.org](http://www.globalreporting.org).
- IFRS Sustainability (2025a). Current state of disclosure of BEES-related information. March. See [www.ifrs.org](http://www.ifrs.org).
- IFRS Sustainability (2025b). Current state of disclosure of human capital-related information. March. See [www.ifrs.org](http://www.ifrs.org).
- Institute of International Finance (2025). Capital flows tracker January 2025. Available at <https://www.iif.com/Products/Capital-Flows-Tracker> (accessed 20 March 2025).
- IASB (International Accounting Standards Board) (2024). Exposure Draft: Climate-related and Other Uncertainties in the Financial Statements – Proposed illustrative examples. 28 November. Available at [www.ifrs.org](http://www.ifrs.org).
- IAASB (International Auditing and Assurance Standards Board) (2024). International Standard on Sustainability Assurance 5000, General Requirements for Sustainability Assurance Engagements. November 12. See [www.iaasb.org](http://www.iaasb.org).
- ICVCM (Integrity Council for the Voluntary Carbon Market) (2024). Carbon credits from current renewable energy methodologies will not receive high-integrity CCP label. 6 August. See [www.icvcm.org](http://www.icvcm.org).
- IESBA (International Ethics Standards Board for Accountants) (2025). IESBA sustainability reporting and assurance. See [www.ethicsboard.org](http://www.ethicsboard.org).
- IPSASB (International Public Sector Accounting Standards Board) (2024). IPSASB SRS Exposure Draft, Climate-related disclosures. 31 October. See [www.ipsasb.org](http://www.ipsasb.org).
- IFSB (Islamic Financial Services Board) (2024). *Islamic Financial Services Industry: Stability Report 2024*. See [www.ifsb.org](http://www.ifsb.org).
- Morgan Stanley Institute for Sustainable Investing (2025). Sustainable reality. Available at [https://www.morganstanley.com/content/dam/msdotcom/en/assets/pdfs/Morgan\\_Stanley\\_Institute\\_for\\_Sustainable\\_Investing\\_Sustainable\\_Reality\\_2024.pdf](https://www.morganstanley.com/content/dam/msdotcom/en/assets/pdfs/Morgan_Stanley_Institute_for_Sustainable_Investing_Sustainable_Reality_2024.pdf).
- Morningstar (2025). *Global Sustainable Fund Flows: Q4 2024 in Review*.
- MSCI (2025). Frozen carbon credit market may be poised for a thaw as 2030 gets closer. Research & Insights blog. 6 January.



- OECD (Organisation for Economic Co-operation and Development) (2021). *ESG Investing and Climate Transition: Market Practices, Issues and Policy Considerations*. See [www.oecd.org](http://www.oecd.org).
- Precedence Research (2025). Mutual fund assets market size, share, and trends 2025 to 2034. 20 February. Available at <https://www.precedenceresearch.com/mutual-fund-assets-market> (accessed 20 May 2025).
- Principles for Responsible Investment (2020). Investor action on biodiversity: Discussion paper. See [www.unpri.org](http://www.unpri.org).
- Reuters. (2023). Carbon credit market confidence ebbs as big names retreat. 1 September. Available at [www.reuters.com](http://www.reuters.com) (accessed 20 March 2025).
- Reuters. (2024). Chile government readying bond to incentivize future conservation. 29 October. Available at [www.reuters.com](http://www.reuters.com) (accessed 20 March 2025).
- S&P Global. (2025). Sukuk market: Strong performance set to continue in 2025. 13 January. Available at [www.spglobal.com](http://www.spglobal.com) (accessed 10 March 2025).
- The Financial Times* (2024). Sustainability-linked bonds falter amid credibility concerns. 29 May.
- TNFD (Taskforce on Nature-related Financial Disclosures) (2024). Sector disclosure metrics. Available at <https://tnfd.global/recommendations/#sector>.
- The Wall Street Journal* (2025). SEC hits pause on defense of climate disclosure rule. 11 February.
- UNCTAD (2023a). *A Sustainability Integration Framework for Institutional Investors*. UNCTAD/DIAE/2023/5. Geneva.
- UNCTAD (2023b). *World Investment Report 2023: Investing in Sustainable Energy for All* (United Nations publication. Sales No. E.23.II.D.17. New York and Geneva).
- UNCTAD (2024). *World Investment Report 2024: Investment Facilitation and Digital Government* (United Nations publication. Sales No. E.24. II.D.11. New York and Geneva).
- UNCTAD (2025). *Leveraging the Potential of Sovereign Investors for Infrastructure Investment in Africa*. UNCTAD/DIAE/2024/2. Geneva.
- United Nations, Department of Economic and Social Affairs (2025). First draft: Outcome document of the Fourth International Conference on Financing for Development.
- UNFCCC (United Nations Framework Convention on Climate Change) (2024). Outcomes of the Baku Climate Change Conference – advance unedited versions (AUVs). Available at <https://unfccc.int/cop29/auvs> (accessed 20 May 2025).
- WMO (World Meteorological Organization) (2025). WMO confirms 2024 as warmest year on record at about 1.55°C above pre-industrial level. 10 January. Available at <https://wmo.int/news/media-centre/wmo-confirms-2024-warmest-year-record-about-155degc-above-pre-industrial-level>.
- World Bank Group (2024). *State and Trends of Carbon Pricing: International Carbon Markets 2024*. Washington, D.C. Available at [www.openknowledge.worldbank.org](http://www.openknowledge.worldbank.org).
- World Bank Group (2025). State and trends of carbon pricing dashboard. Available at <http://www.carbonpricingdashboard.worldbank.org/> (accessed 21 May 2025).
- WTO et al. (2024). *Working Together for Better Climate Action: Carbon Pricing, Policy Spillovers, and Global Climate Goals*. World Trade Organization, Organisation for Economic Co-operation and Development, International Monetary Fund, United Nations and The World Bank. Geneva.



