



GREEN FINANCE SKILLS: THE GUIDE

Think Ahead

About ACCA

ACCA (the Association of Chartered Certified Accountants) is the global professional body for professional accountants.

We're a thriving global community of **241,000** members and **542,000** future members based in **178** countries and regions, who work across a wide range of sectors and industries. We uphold the highest professional and ethical values.

We offer everyone everywhere the opportunity to experience a rewarding career in accountancy, finance and management. Our qualifications and learning opportunities develop strategic business leaders, forward-thinking professionals with the financial, business and digital expertise essential for the creation of sustainable organisations and flourishing societies.

Since 1904, being a force for public good has been embedded in **our purpose**. In December 2020, we made commitments to the **UN Sustainable Development Goals** which we are measuring and will report on in our annual integrated report. We believe that accountancy is a cornerstone profession of society and is vital in helping economies, organisations and individuals to grow and prosper. It does this by creating robust trusted financial and business management, combating corruption, ensuring organisations are managed ethically, driving sustainability, and providing rewarding career opportunities.

And through our cutting-edge research, we lead the profession by answering today's questions and preparing for the future. We're a not-for-profit organisation.

Find out more at accaglobal.com



GREEN FINANCE SKILLS: THE GUIDE

If our planet is to avoid climate catastrophe, the world has to change. As a profession we need to be one of the groups driving that change by helping organisations adapt to build a more sustainable future. Sustainability is not a nice-to-have for enterprises and businesses, it is quite simply a must-have. Green financing can supply organisations with the funding needed to make the net-zero transition, but tapping that financing requires finance professionals with the appropriate skills, expertise and know-how. To help finance and investment professionals play this critical role, ACCA has taken practical steps to upskill its members. Its latest initiatives include jointly launching a Climate Finance course with CFA Institute.

This report gives voice to the views and perspectives of members and stakeholders in the ACCA community who have given their time to explore their ideas in green finance and the net-zero transition. It is a research report, whose findings on what accountants around the world think of climate finance are fully outlined in Appendix B.



Author

Emmeline Skelton,
Head of Sustainability, ACCA

Foreword



John Lelliott OBE FCCA
Non-executive Director of
the Environment Agency
and ACCA Sustainability
Global Forum Chair

‘Change or die’ has a very literal application when it comes to sustainability. Unless the world addresses the climate change challenge successfully, there may simply be no habitable world left. A monumental migration to sustainable economies and businesses is required, and that is something that we as a profession want to be – and can be – one of the groups driving.

The accountancy and finance profession can make a telling contribution to the sustainability effort by becoming experts in green finance. It’s a perfect match – finance, after all, is the heart of a finance professional’s role.

Yet many ACCA members say they lack the necessary technical skills to steer the green financing activity needed for organisations to build the sustainable future that represents the best chance of any future. It’s an obstacle that has to be overcome, as ACCA’s 2021 report *Climate Action and the Accountancy Profession* highlighted. To meet the challenge properly, the profession needs upskilling.

There is a significant opportunity here to make finance experts integral to the sustainability drive. As the demand for sustainable investing grows, finance professionals must be able to service it by developing a deeper understanding of how sustainability issues affect finance, their clients and the world at large. This report highlights why, in green financing, subject knowledge is not just power but the underpinning of a sustainable future for businesses of every type.

Contents

Executive summary	6
1. The time to act is now	10
2. Access to green finance	16
3. Green finance skills	20
4. Sustainable business models, value chains and sustainable economy	26
Conclusion: Key take aways and a call to action	29
Appendix A: Glossary	31
Appendix B: Global Economic Conditions Survey on Climate Finance	34
References	41

Executive summary

Sustainability creates long-term value

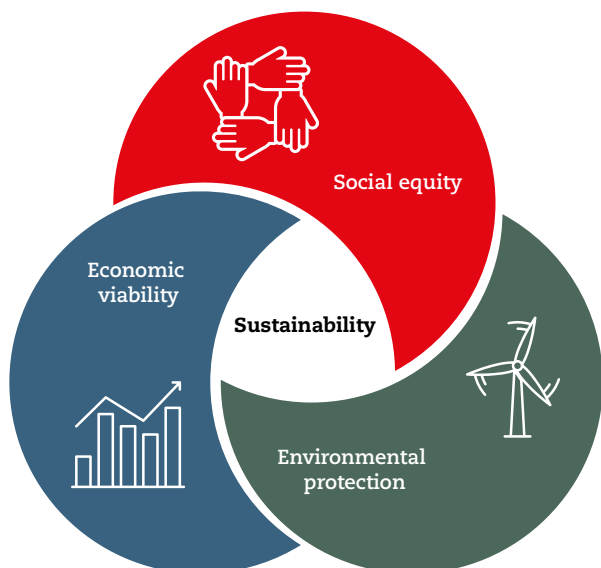
'May you live in exciting times' runs the ancient Chinese curse. It's an apt description of our volatile economic and political landscape, where **access to cheaper capital is more vital than ever to an organisation's long-term survival**. With lenders increasingly offering attractive 'green rates' to organisations able to meet sustainability requirements, green finance is that cheap capital that can keep businesses in business. It helps them prepare well in advance for the emerging and systemic risks brought about by climate change – a far greater potential danger than the most powerful and ruthless of business rivals.

Green finance is an engine of competitive advantage.

By embedding sustainability into all activities, you will drive value creation. 'Simply put, sustainability is a business approach to creating long-term value by taking into consideration how a given organisation operates in the ecological, social and economic environments. Sustainability is built on the assumption that developing such strategies fosters company longevity. As the expectations on corporate responsibility increase, and as transparency becomes more prevalent, companies are recognising the need to act on sustainability.' (International Institute for Management Development, May 2022).

Key to this definition is the long-term nature of sustainability at the intersection of social equity, economic viability and environmental protection (Figure E1).

FIGURE E1: The triple bottom line – sustainability's three domains



Resources, including both human and natural capitals, need to be considered in an economically viable manner. But rather than the traditional focus purely on the economic elements, professional accountants must now consider the environmental and social elements too. The profession is entirely at home discussing economic viability and beginning to get comfortable with environmental protection, but the third dimension of social equity is just as crucial. The social agenda is a fundamental part of the just transition that is required for organisations to be sustainable.

Research for the Global Economic Conditions Survey (GECS) in Q2 2022 by ACCA and IMA (Institute of Management Accountants) found that organisations around the world are attaching more importance to environmental factors, with their leaders anticipating significant change in business practices to meet net-zero targets. Understandably, they need more support from their finance professionals to increase their access to – and awareness and knowledge of – the green finance products (see Chapter 2) that will underpin the transition to net-zero.

Businesses told our researchers they are underinformed on climate finance opportunities and climate risk management. Lacking the skills and expertise required to develop, implement and manage ESG (environmental, social and governance) strategies robustly, many are upskilling existing staff or recruiting externally from a highly competitive market with a small pool of experts.

Our profession's ability to understand the green finance options needed for the transition to net-zero is key to equipping organisations with this expertise. Having the skills to consider non-financial as well as financial business drivers will also leave the profession well placed to lead in training staff and developing the talent needed for enabling transformation and embedding sustainability.

THE PROFESSION IS ENTIRELY AT HOME DISCUSSING ECONOMIC VIABILITY AND BEGINNING TO GET COMFORTABLE WITH ENVIRONMENTAL PROTECTION, BUT THE THIRD DIMENSION OF SOCIAL EQUITY IS JUST AS CRUCIAL.

Knowledge plus skills

The ACCA platform is crucial in supporting finance professionals in their role of helping organisations to develop well-structured and derisked sustainable development initiatives and portfolios of greener assets. The upskilling requirement for accounting and finance professionals is covered fully in Chapter 3. In short, they need to be able to:

- assess business sustainability and ESG requirements
- analyse impacts
- develop strategic action plans
- consider the evolving global financial markets landscape
- source and manage green finance products
- understand and respond to emerging global sustainability disclosure requirements such as those from the International Sustainability Standards Board (ISSB), the Task Force on Climate-related Financial Disclosures (TCFD) and the Taskforce on Nature-related Financial Disclosures (TNFD).

The sustainability journey

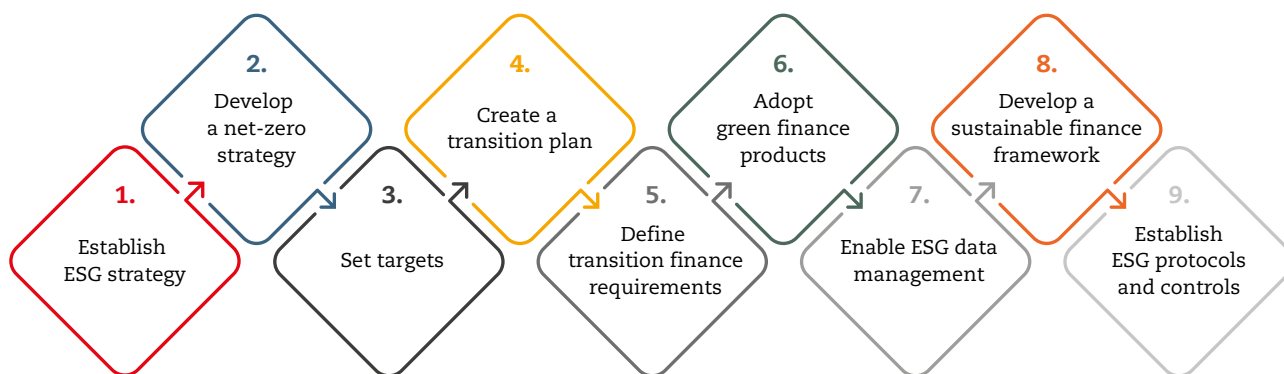
Climate change and the journey to net-zero will have a financial impact on organisations' position, performance and future outlook. The sustainability journey (Figure E2) that organisations need to embark on involves defining net-zero strategies and setting time-bound targets relevant to the value chain.

Sustainability is driven by factors external to organisations such as the increasing interest of regulators and the development of reporting standards (such as the proposed IFRS S1 and S2) that require disclosures around sustainability. Internally, organisations need to define how their strategy addresses the sustainability agenda: what are the goals and desired outcomes?

This strategy can be translated into measurable objectives that form part of internal performance management processes. These activities may be non-financial, but finance plays a strong, if not integral, role in them. As the guardian of reported data across an organisation, finance needs to be involved in the end-to-end processes to collect and analyse the data. With planning now requiring integrated, cross-functional activity rather than a finance-only focus, the siloed finance function is obsolete.

Chapter 1 of this report explains how to establish policies, procedures, methods and practices to collect ESG data insights relevant to assessing and reporting on strategy. Chapter 2 sets out how to enhance awareness of green finance products. Chapter 3 covers taking a lead role in driving the green finance agenda and the net-zero journey. And Chapter 4 explains how to develop a climate finance strategy and operating model, and a sustainable investment/financing approach.

FIGURE E2: The sustainability journey



THE SUSTAINABILITY JOURNEY THAT ORGANISATIONS NEED TO EMBARK ON INVOLVES DEFINING NET-ZERO STRATEGIES AND SETTING TIME-BOUND TARGETS RELEVANT TO THE VALUE CHAIN.

Green finance and net-zero ambitions

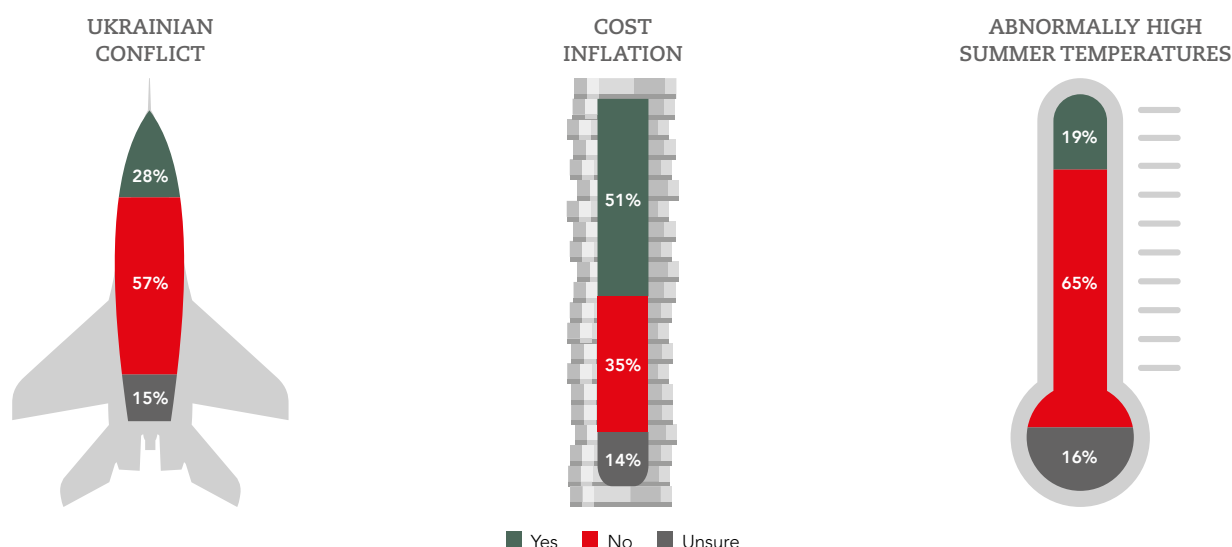
The precise costs of climate change and the net-zero journey – not to mention how those costs will be allocated between and within countries – are highly uncertain, but it is only too clear that all economies and organisations will feel a hefty impact over the coming decades.

While the value and importance of net-zero targets are widely understood, organisations are still firefighting current operational challenges.

Among our GECS Q2 2022 respondents, 25% think they will have to extend their timeline to reach net-zero, while 51% think **cost inflation** will force them to **change their strategy for reaching net-zero** (Figure E3).

The green transition demands long-term financing. Green bonds, carbon pricing and sustainability-linked loans will all play an important role if we are to reach net-zero by 2050. Yet 59% of the GECS respondents said they are not considering using green finance products: **this is an opportunity that needs to be addressed.**

FIGURE E3: Have organisational strategies for achieving net-zero goals changed in light of the following events?



Source: ACCA and IMA GECS (2023)

Global Economic Conditions Survey (GECS)

ACCA and IMA regularly ask small, medium-sized and large businesses around the world to consider the costs and opportunities of the business changes needed for them to play their part in decarbonising the economy. In Q2 2022, a set of green finance questions was put to our GECS participants (Appendix B). Some key results are shown below.

Net-zero timeline

25% of respondents expect to have to extend their timeline for reaching net-zero

51% said **cost inflation** will mean they will now need to **change their strategies for reaching net-zero.**

Access to green finance

63% have started their green finance journey (22% are likely to use green finance, with a further 41% potentially using green finance)

33% said a lack of infrastructure, technology and skills is the most important concern about green finance to address.

Net-zero transition

33% said their country's heavy dependence on fossil fuels and the extraction sector is their most important green finance concern

46% said environmental opportunities were the most important considerations for their region (eg carbon emissions reduction, circular economy innovation, energy and water efficiency, sustainable materials)

41% said a significant change in business practices is needed across their organisation or region to achieve net-zero

38% saw the net-zero transition as an opportunity to create tangible social impacts (eg green jobs creation, training and skills development, employee retention, product quality improvement, enhanced customer engagement, and meaningful diversity, equality and inclusion).

CALL TO ACTION: How professional accountants can drive organisations to net-zero

1. Help define the organisation's net-zero strategies and targets.
2. Develop ESG strategies and sustainable business models built on green financing and investment.
3. Help to identify and advise on the costs, benefits, challenges and opportunities of your organisation's net-zero transition.
4. Enhance your understanding of green finance products and how they can be used for tangible ESG and economic impacts.
5. Set policies and procedures for enhanced ESG data insights and sustainability accounting/disclosures.



**GREEN FINANCE IS AN
ENGINE OF COMPETITIVE
ADVANTAGE. BY EMBEDDING
SUSTAINABILITY INTO ALL
ACTIVITIES, YOU WILL
DRIVE VALUE CREATION.**

1. The time to act is now

Financing climate adaptation and the transition to net-zero

Drought, famine, species die-off, and a rise in sea levels that shrinks productive land and densely populated areas. It's a science-grounded vision of an apocalyptic future that many of us are likely to live to experience unless the world can check global warming to no more than 1.5C of pre-industrial levels (Figures 1.1 and 1.2) and reach net-zero by 2050. The Intergovernmental Panel on Climate Change's *Special Report on Global Warming of 1.5C* (2018) made the seriousness of the situation clear, and under the Paris Agreement, countries have legally bound themselves to reduce the greenhouse gas (GHG) emissions that are driving global warming.

Green finance is a potential super-weapon in the battle for net-zero – when the addition of greenhouse gases to the atmosphere is balanced by their removal. It will enable carbon-intensive industries and companies to reduce their emissions and meet net-zero targets, and fits within

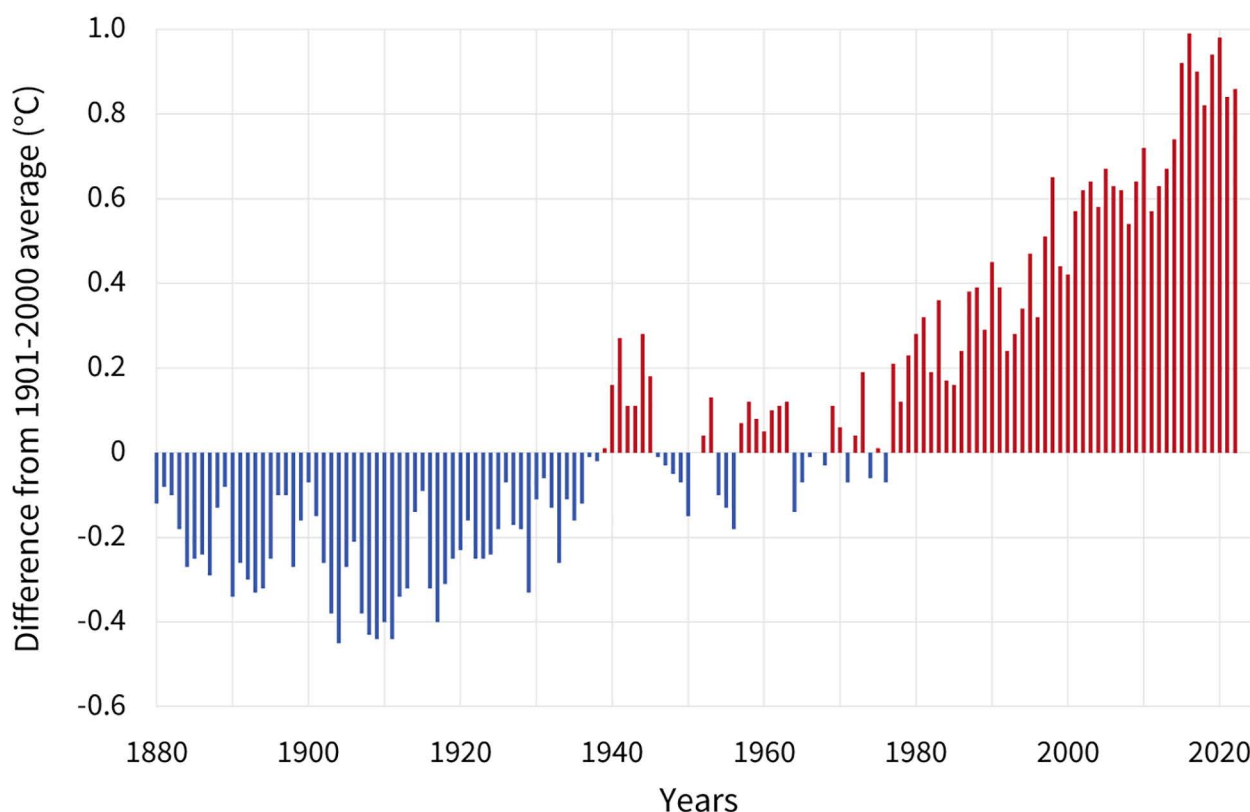
the powerful financial reporting framework of agreed standards, third-party auditing and regulator-policed compliance. Financiers, investors and policymakers will play a key role in scaling up climate transition finance to underpin a mass shift by organisations to sustainable activities, greener assets and economies.

Long-term science-based targets developed by the Science Based Target initiative (SBTi) indicate that most companies will need to reduce their greenhouse gas emissions by 90–95% to achieve net-zero no later than 2050 (2040 for the power sector). SBTi's Net-Zero Standard provides corporates with guidance for slashing their emissions over the next five to 10 years.

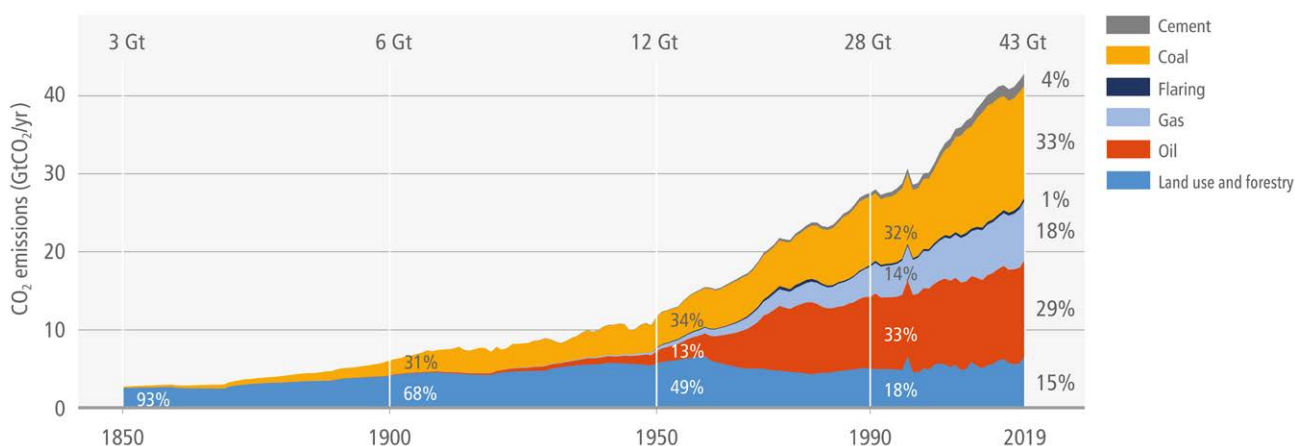
Achieving net-zero emissions will require:

- significant GHG reductions in line with science-based decarbonisation trajectories
- permanent removal of residual GHG emissions that it is unfeasible to reduce or avoid.

FIGURE 1.1: Global average surface temperatures have been rising strongly since the 1970s



Source: US National Oceanic and Atmospheric Administration (2022)

FIGURE 1.2: Long-term trend of anthropogenic CO₂ emissions sources

Source: IPCC Sixth Assessment Report (2022a)

While the complex nature of climate change makes exact outcomes, time horizons and future pathways uncertain, there is a high degree of certainty that physical and transition risks will materialise. According to an IPCC 2022 report:

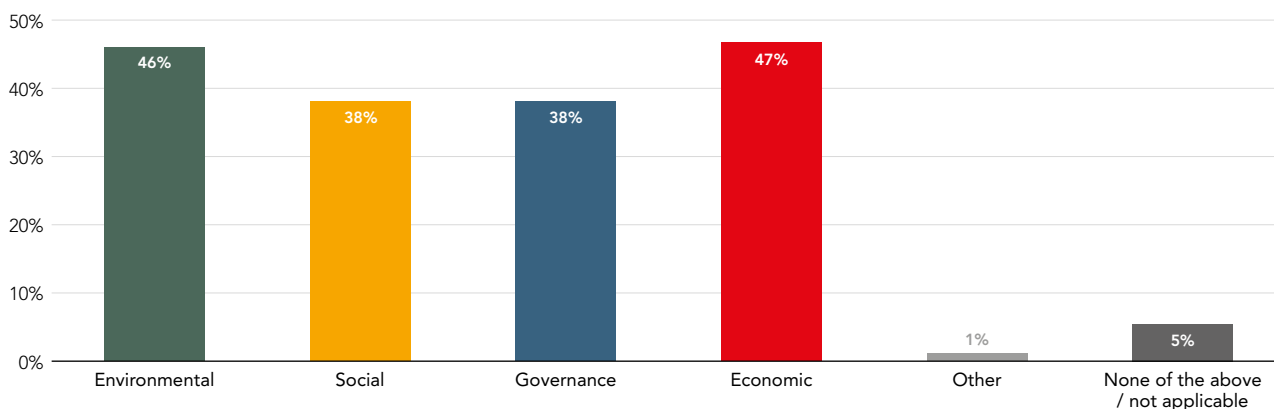
- between around 3.3 and 3.6 billion people live in areas highly vulnerable to climate change, with unsustainable use of natural resources, inequity and marginalisation
- globally, less than 15% of land, 21% of freshwater and 8% of the ocean are protected areas, leaving a high proportion of species vulnerable to climate change
- the increased frequency, severity and duration of extreme events will place many terrestrial, freshwater, coastal and marine ecosystems at high or very high risk of biodiversity loss.

Opportunities in the green economy

Mark Carney, the UN special envoy on climate action and finance, explains the net-zero transition as 'the greatest commercial opportunity of our age', one that will usher in new global industries and supply chains.

It's an opportunity that over half the respondents to our GECS Q2 2022 research failed to recognise:

54% DID NOT IDENTIFY ANY OPPORTUNITIES IN ENVIRONMENTAL ACTION, AND 62% SAW NO POTENTIAL SOCIAL BENEFITS FOR THEIR REGION.

FIGURE 1.3: Which of the following opportunities would be important for your global region?

Source: ACCA and IMA GECS (2023)

Green jobs and gender inequality

Not only are women more vulnerable than men to climate change, but the much vaunted green jobs economy – the International Labour Organization reckons on 24 million new roles globally by 2030 – is likely to pass them by.

Sectors such as agriculture that are disproportionately affected by extreme weather conditions have workforces mainly composed of women. According to United Nations agencies, 80% of people displaced by climate change are women (UN Environment 2022), and women are 14 times more likely than men to die during environmental disasters (UN Women 2018).

Meanwhile, the sectors that will benefit most from the transition to net-zero are utilities, construction and manufacturing – which have overwhelmingly male workforces. If current trends in areas such as education and employment continue, the climate mitigation and adaptation strategies designed today could set gender equity back by 15 to 20 years, according to a 2021 Boston Consulting Group (BCG) analysis.

Ensuring women are not left behind in the transition to net-zero is part of the social equity domain in sustainability's triple bottom line (Figure E1). Governments and businesses need to work together to:

- **embed a gender perspective in climate investments** – global investment in efforts to achieve net-zero should total US\$100–150 trillion by 2050 (BCG 2021)
- **ensure equity in green economy jobs** – by increasing the number of women educated and trained in science, technology, engineering and mathematics (STEM) subjects and sustainability-related fields, and by increasing female representation in industries that require reskilling for the green transition.

Organisational transformation

Escalating ESG challenges are now uppermost in the minds of investors and many other stakeholders, presenting organisations with a broader sustainability challenge. As governments recognise the need to address the climate emergency, so organisations must respond with their own plans to address carbon neutrality, net-zero or similar defined targets. Figure 1.4 illustrates the factors with which business must now contend.

For the finance team, the changes and challenges are reflected in greater stress being laid on insight and forward-looking considerations rather than on just reporting past events. Change is needed if finance professionals are to remain relevant to their stakeholders. ACCA and IMA members recognise this: 81% of respondents to GECS in 2022 think organisations and regions will need to change their business practices to meet the net-zero target (Figure 1.5).

For finance to play an effective role in organisations' green transition, it must first have clarity about its own purpose. Value is the measurement of an organisation's purpose: it represents both the financial return across the sustainability agenda and its contribution to society.

Only once this is established can finance deliver the organisational transformation its stakeholders demand. Transformation itself is a move from an 'as-is' to a 'to-be' state that has many dimensions across organisations. See ACCA's 2021 report *Transformational journeys: finance and the agile organisation* for further details.

**CHANGE IS NEEDED IF
FINANCE PROFESSIONALS
ARE TO REMAIN RELEVANT
TO THEIR STAKEHOLDERS.**

FIGURE 1.4: Factors contributing to or arising from continuous business change

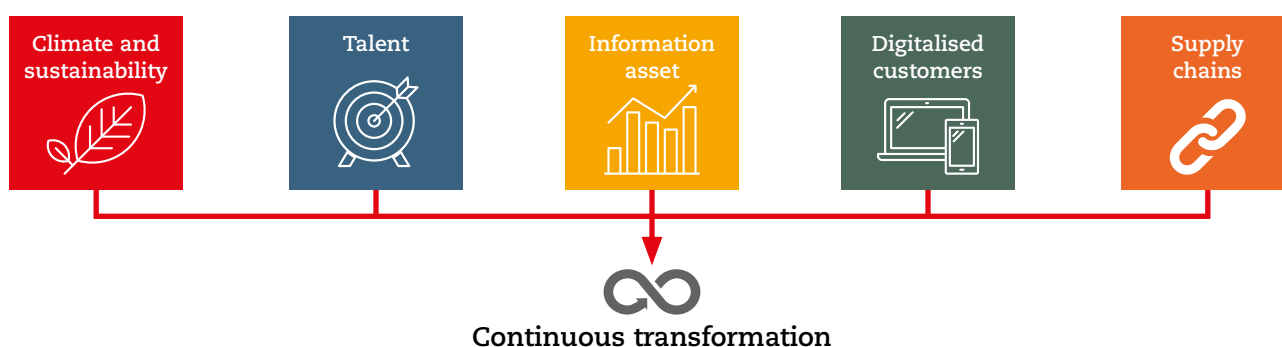
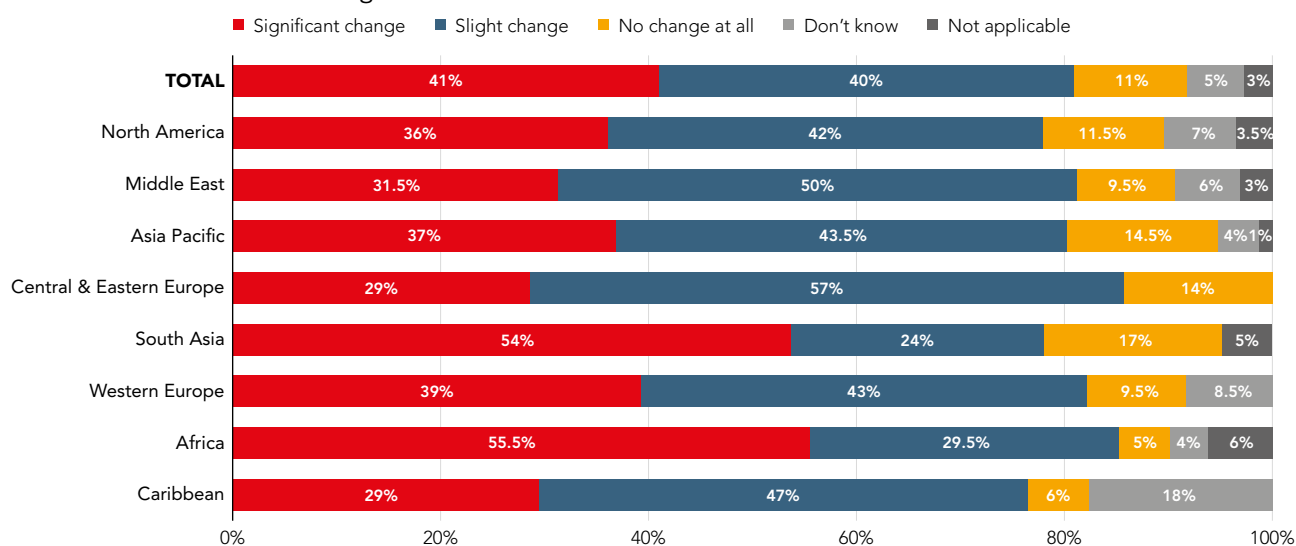
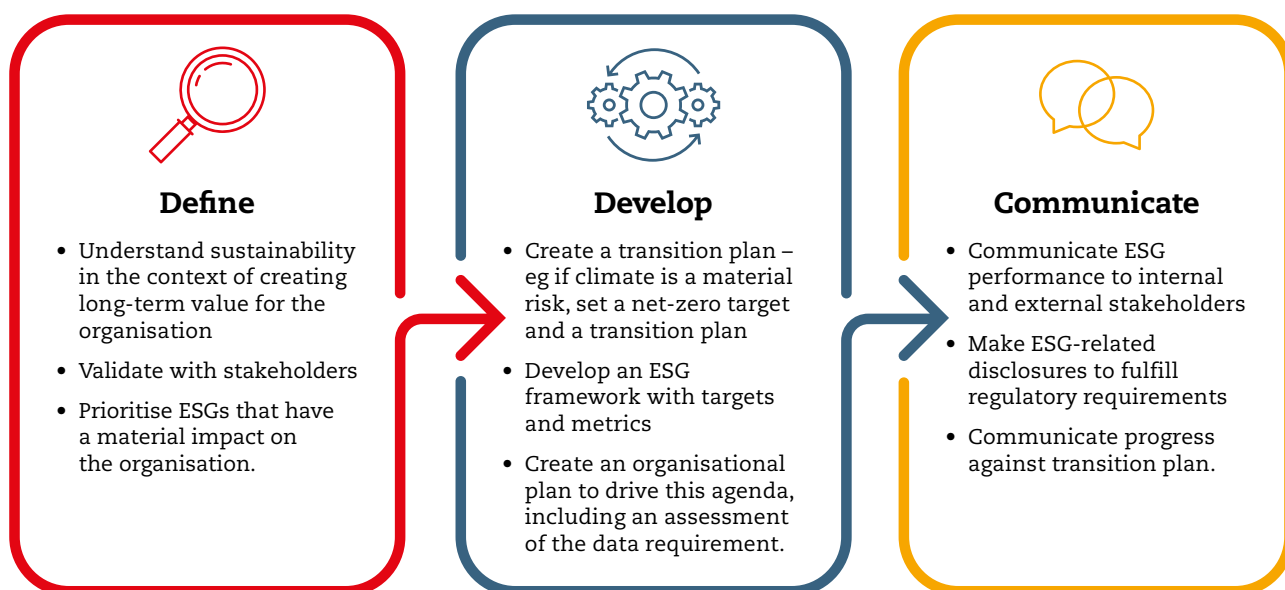


FIGURE 1.5: How much do you think your organisation/region will have to change its business practices in order to meet the net-zero target?

Source: ACCA and IMA GECS (2023)

FIGURE 1.6: Creating an ESG framework

ESG framework

Building long-term value through sustainability is a no-brainer. The first step for organisations in this process is to develop a framework for incorporating ESG factors into their operations (Figure 1.6).

ACCA's 2022 report *Planning and performance management paradigm* shows that sustainability and non-financial disclosures must be embedded in the planning and performance processes. It addresses how business partnering skills, supported by robust data and efficient technology, can enable finance teams to take a more holistic approach to cross-organisation planning.

ESG investing

ESG investing is a highly effective tool for addressing climate change because it allows companies to reduce the cost of capital and to attract investors.

Organisations need accountancy and finance professionals who can give investors ESG clarity by developing and building a framework for ESG bond issuances, and can guide the business in accessing funds for green transitioning.

KEY STEPS for accountants and finance professionals

If they are to act as effective partners and strategic advisers to their organisations, accountants and finance professionals need to be able to:

- ascertain the level of ESG maturity across the organisation, and define and assess business drivers and the financial and non-financial requirements related to sustainability
- define well-structured sustainable business models and methods and the approach to embedding sustainability best practices across the organisation
- design and implement robust ESG strategies and net-zero strategies
- source, apply and manage green finance products
- analyse and monitor ESG impacts from a finance perspective
- develop sustainability strategic action plans for finance
- provide business strategic and financial investment decisions based on in-depth analysis, to create a portfolio of greener assets
- identify ESG risks and opportunities, and the associated costs and benefits
- grasp the fundamentals of carbon accounting and pricing
- define an end-to-end ESG data management approach based on finance and business needs
- review and report on evolving global financial market and economic trends relating to sustainability and climate, and stakeholder needs
- provide finance-related disclosures on sustainability standards (eg TCFD), and engage with emerging regulatory requirements (eg ISSB and TNFD).

CALL TO ACTION for private and public sector organisations

A deep knowledge and understanding of green finance products, evolving market trends, stakeholder requirements, sustainability standards and emerging regulatory requirements is key to creating a sustainable business model and achieving strategic goals and plans while transitioning to net-zero.

1. Design and implement robust ESG strategies with clearly defined purposes and goals, and progress metrics. ESG should be aligned with and embedded in overall business strategy.
2. Develop a net-zero strategy. Set near-term and long-term science-based targets to achieve net-zero emissions. Define the scope of sectors, assets, portfolios and activities to cover. Define the baseline for comparing performance with targets, and agree key performance indicators (KPIs) and performance metrics.
3. Create a transition plan. Define the key steps and milestones on the journey to net-zero emissions. Confirm the approach for assessing, reducing and disclosing emissions from your organisation's own operations, its supply chain and other indirect sources.
4. Define the transition finance requirements for significant GHG emissions reductions and the permanent removal of residual emissions.
5. Identify and adopt green finance products.
6. Adopt appropriate methods and tools to capture relevant, accurate and complete ESG data in source systems to support impact assessment, monitoring and sustainability reporting.
7. Develop a green/sustainable finance taxonomy and framework for regulatory disclosures. The taxonomy will enable the allocation of investment capital to greener assets and activities, improve ESG risk management and avoid accusations of greenwashing. By outlining criteria for labelling green finance products and services, and classifying sustainable financing/investments, the framework will enable sustainability and climate disclosures.
8. Establish controls to provide oversight, with clearly defined roles and responsibilities, through strong ESG governance structures (eg board committee, ESG subcommittee), and robust risk management to enable efficient and effective operations (eg the IIA's Three Lines of Defence model) and the production of reliable and trusted sustainability disclosures.



**GREEN FINANCE IS A POTENTIAL
SUPER-WEAPON IN THE BATTLE
FOR NET-ZERO – WHEN THE
ADDITION OF GREENHOUSE
GASES TO THE ATMOSPHERE IS
BALANCED BY THEIR REMOVAL.**

2. Access to green finance

Green finance products

Essential as the green transition is, it won't come cheap. A proliferating range of green finance products (eg carbon credits, green investment funds, green bonds, green mortgages, social bonds and sustainability-linked loans) and blended finance options (eg loan guarantees/insurance) can provide the required transition funding. (See Appendix A for a full list of green products in ACCA's glossary of sustainable terms.)

But that funding is likely to go begging unless there are professionals with green finance skills to help organisations:

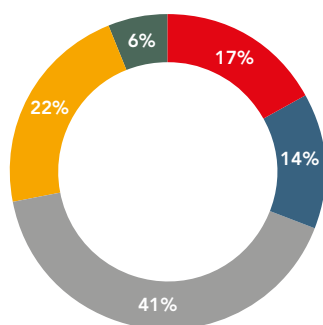
- get started on the sustainable journey, by putting the data, systems and strategies in place to create the green credentials required for accessing green finance

- undertake sustainable development initiatives (eg new infrastructure, innovative technological methods) that support the decommissioning of 'brown' assets and creation of responsible supply chains
- achieve agreed climate-related outcomes from products with attractive financing terms that will deliver the required return on investment.

The need for organisations to tap those skills is clear. GECS research with ACCA and IMA participants in 2022 found that 63% report they have started the green finance journey (22% said they are likely to use green finance and 41% that they may use it) (Figure 2.1). To transition to net-zero, organisations will need their finance team to have more awareness and knowledge of green finance products.

FIGURE 2.1: Would you use green finance in your organisation?

- No, green finance is not suitable for our organisation, **17%**
- No, we do not have the resources to gain access to green finance, **14%**
- Maybe, **41%**
- We are likely to use green finance in the future, **22%**
- We are already using green finance, **6%**



Source: ACCA and IMA GECS (2023)

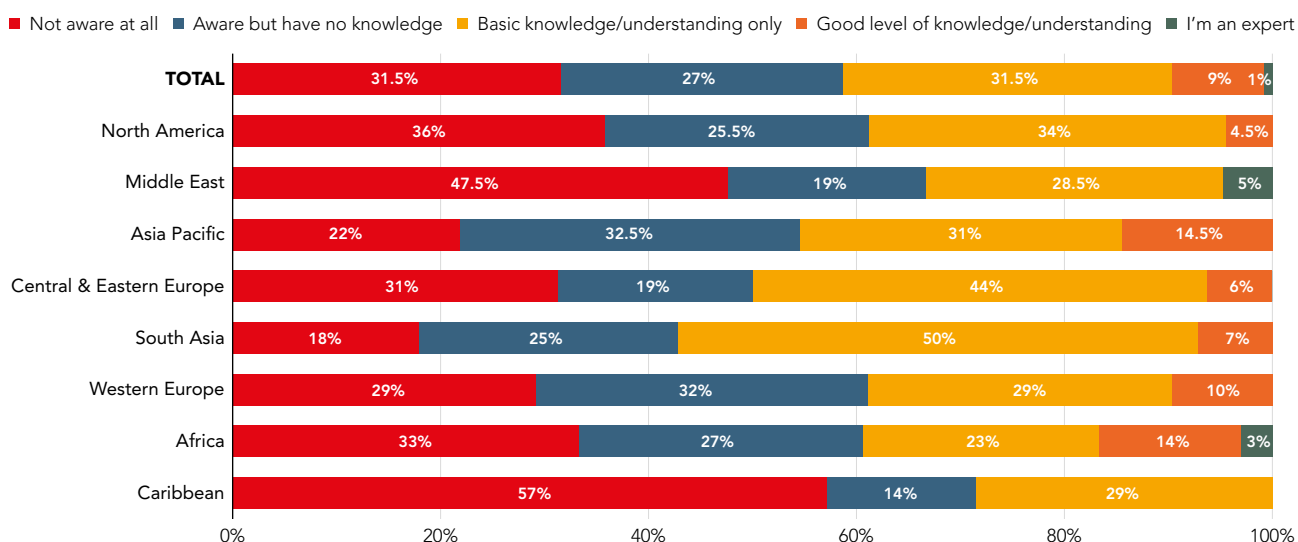
Green bonds

Green bonds are the green finance product familiar to most finance professionals – 68% have awareness or knowledge of them (Figure 2.2).

In India, one organisation that has used green bonds to finance cleaner energy with notable success is ReNew Power. It is the country's largest independent producer of renewable energy, with over seven gigawatts of commissioned and planned wind and solar power generation facilities in 2019.

After listing on the Nasdaq Stock Exchange in March 2021, ReNew announced plans to develop a pipeline of 18–19 GW of renewable energy capacity by 2025. To finance its

FIGURE 2.2: Awareness of green bonds among financial professionals



Source: ACCA and IMA GECS (2023)

plans, it has issued green bonds, including in April 2021 a successful US\$585m senior secured green bond at 4.5%, which falls due in 2028/9.

In January 2022, it raised a further US\$400m at 4.5% by issuing senior secured dollar notes with a 5.25-year term to refinance existing debt and fund capital expenditure. The dollar notes are green bonds certified by the Climate Bond Initiative and will be listed on the Singapore Stock Exchange.

Sustainability-linked loans

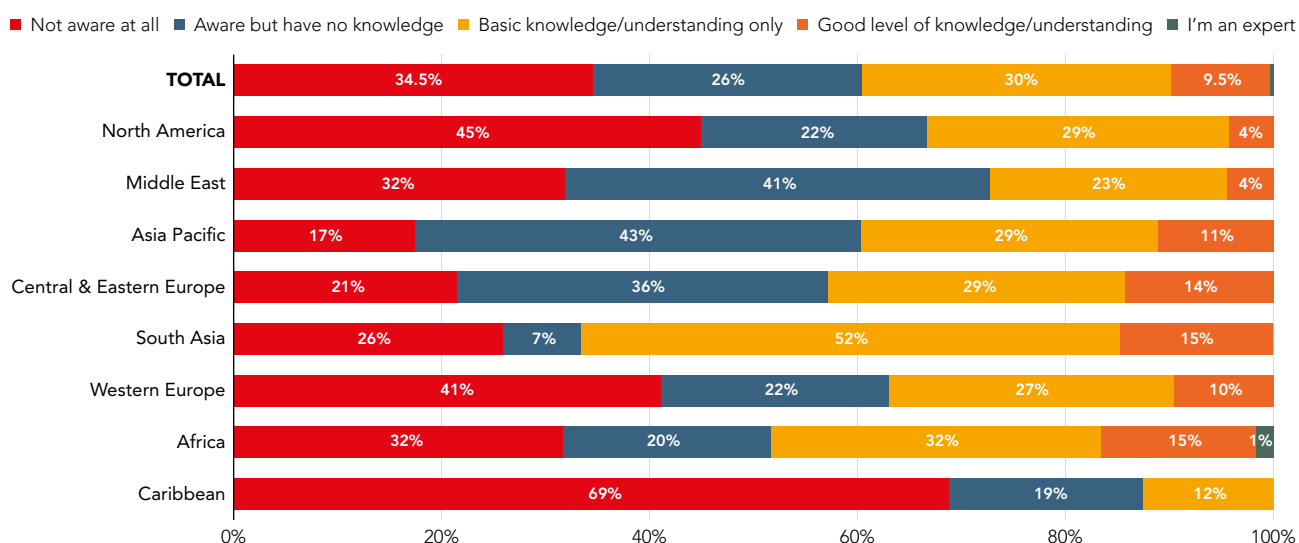
Sustainability-linked loans are a subset of green bonds but differ in several crucial ways:

- The funds raised are tied to a corporate or national objective rather than a specific project, freeing the issuer to deliver sustainability improvements through a wide range of means.
- Sustainability-linked bonds are issued with performance targets containing KPIs. If the targets are missed, the bond is subject to a 'step-up' clause that raises its interest rate.

In March 2022, Chile placed the world's first-ever sovereign sustainability-linked bond (Bouzidi and Mills 2022). The US\$2bn 20-year bond was more than four times oversubscribed – a remarkable achievement given the sovereign bond market's volatility and uncertainty. The bond adheres to the Paris Agreement on climate change and its performance targets include the country emitting no more than 95 metric tons of CO₂ by 2030 and deriving 60% of its electricity production from renewables by 2032.

Similar in concept to sustainability-linked bonds, policy performance bonds are focused on achieving carbon emission reductions. Originally issued by governments as a means of fulfilling their climate change pledges, they are, in their simplest form, interest payments linked to the actual GHG emissions of the issuing country. An investor in a policy performance bond receives an excess return if emissions are above the government's published target.

FIGURE 2.3: To what extent are you aware of sustainability-linked loans to reduce the cost of capital?



Source: ACCA and IMA GECS (2023)

Green finance and SMEs

Growth capital is the great constraint for small and medium-sized enterprises (SMEs) trying to become more sustainable as they expand. A reported 27% of European SMEs signal a lack of financial resources as the main reason for not becoming more sustainable – a significantly higher figure than for large businesses (OECD 2021).

Reporting on sustainability may give SMEs access to otherwise unavailable finance, such as public grants that require a procurement application. And with banks adopting sustainability criteria and issuing green loans, the demonstration of sustainable practices may become crucial to obtaining bank financing – the most common source of external financing for many SMEs.

Barriers for financial institutions, policymakers and regulators to tackle

- SMEs have different financing needs depending on their life cycle and development (eg start-up vs growth phases).
- Access to finance is a key strategic issue for SME development (eg cashflow, working capital).
- Structural barriers to SMEs accessing finance include lack of collateral, insufficient financial skills and poor awareness of funding options. Certain groups (eg women-led companies, minority ethnic businesses) face further challenges.
- On the supply side, there are information asymmetries between financial institutions and SMEs, and a limited range of sustainable financing products adapted to the needs of SMEs. The 'niche' nature of green markets can also result in incompatibility between investors' and entrepreneurs' ideals and objectives.
- On the demand side, SMEs may not yet see a strong business case for greening. They often lack awareness and investor-readiness for green financial opportunities and may not be able to meet the reporting requirements that financial institutions require for green financing. They also face long and uncertain payback periods from green investments, along with difficulties in ensuring user demand for green outputs.

FIGURE 2.4: Next steps for SMEs

Many SMEs will lack the financial expertise in-house to undertake these steps, but their professional advisers in small and medium accountancy practices will be able to offer the expert support needed to guide them successfully through the options. There is an opportunity here for advisers to upskill and develop new sources of business.



Analyse the financial position of the business.



Determine the financing needs and their nature (eg optimising sustainable business practices by investigating the cost of new energy-efficient equipment), how urgent they are and the development stage of the business.



Identify and research the different financing options available (eg banks, equity, asset-based finance, alternative finance).



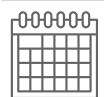
Speak to your bank or lender. Some have developed tools to support SMEs on sustainability reporting and achieving net-zero.



Determine the most appropriate financing option. Finding the right funding source is more important than finding a green finance source.



Clarify what information needs to be provided and analysed to get access to the selected finance option. Do you have reliable sources of this data?



Create/update your business plan to include capturing reliable data to provide accurate, timely, relevant and comparable sustainability information.

For further guidance for SMEs on sustainability mapping and defining sustainability priorities, see the [SME Sustainability Playbook](#) (CA ANZ and ACCA 2022).

**TO TRANSITION TO NET-ZERO,
ORGANISATIONS WILL NEED THEIR FINANCE
TEAM TO HAVE MORE AWARENESS AND
KNOWLEDGE OF GREEN FINANCE PRODUCTS.**

3. Green finance skills

If the benefits the net-zero transition can bring across the economy are to be maximised, then the current skill set within the finance sector and beyond needs to be significantly enhanced. Greater capabilities in professional scepticism and judgment are needed to prevent deliberate or inadvertent greenwashing. Organisations' plans and programmes have to be supported by independent assurance, measurement verification and/or certification. Simply allowing businesses to claim that staff have been trained can lead to 'competency washing', which will harm the credibility of other aspects of transition plans.

It is important that knowledge and skills are developed as widely as possible. It is hard to imagine delivery of any element leading to a decarbonised economy without the requisite knowledge or skills among businesses, consumers and other actors. ACCA believes that professional education and training will play a key role in successful transition planning and delivery.

Developing the skills

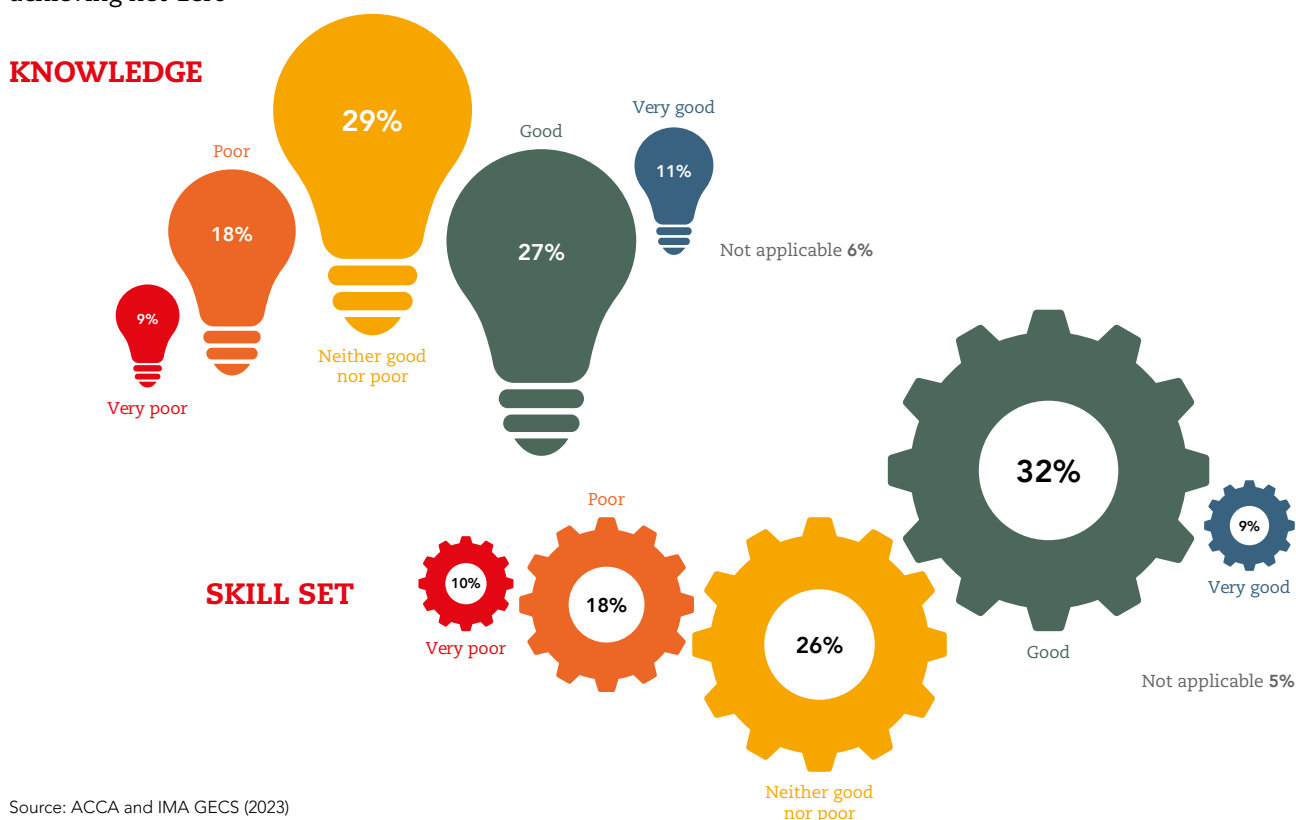
Many organisations currently lack a financial pilot who can steer a net-zero course for them. Poorly informed

about climate finance opportunities and climate risk management, they are unable to develop, implement and manage the robust ESG strategies needed to access green finance. Organisations need to upskill so they can:

- gain better understanding of financial and non-financial requirements, transition finance opportunities and customer needs, and enable responsible value chains
- improve their understanding of the sources and types of green finance products available, and their applicability
- manage and service green finance products
- assess ESG impacts and enable monitoring and sustainability reporting
- perform carbon accounting and pricing.

The ESG skills gap is sizeable for both SMEs and large corporates that still need to invest time and effort in developing their net-zero transition plans (Figure 3.1). They should start by focusing on upskilling their teams and bringing in new skilled resources.

FIGURE 3.1: How finance professionals rate their knowledge and skills for managing the finance side of achieving net-zero



Green finance skills across organisations

Only 36.5% of GECS participants said they have the right level of resource in their team to help reach their organisation's net-zero goals (Figure 3.2).

Skills and capabilities required in the financial sector

The key challenges for the financial sector will be taking ambitious action to meet sustainability commitments, broadening capacities in emerging areas, monitoring and communicating progress to stakeholders in a robust fashion, and managing an array of complex official sector requirements – all while enhancing competitiveness in new business areas. The skills and capacities needed to achieve this will vary for both core business activities and role functions, but the following three themes will be relevant across the financial sector at all levels.

Understanding what is at stake. Accounting and finance professionals will need to understand:

- the key changes in the natural environment (eg biodiversity loss)
- the potential impacts of these changes on human societies (especially the key economic sectors affected)
- the potential for policy, markets, technology, innovation and social change to respond to these factors
- the relevance of these trends for business strategy.

Leveraging collaboration and cooperation towards shared goals

Global cross-sectoral challenges require global solutions, which need to be advanced across multiple levels of governance and economic organisation. Addressing risks while catalysing transformation within the economy requires collaboration across the entire investment chain.

Managing uncertainty. Disruption will define the coming decades, as we have seen with the Covid-19 pandemic and the Ukraine war. Financial institutions will need to plan for contingencies and ensure they have the flexibility to adapt while avoiding unintended consequences that may have negative distributional effects.

ONLY 37% OF GECS PARTICIPANTS SAID THEY HAVE THE RIGHT LEVEL OF RESOURCE IN THEIR TEAM TO HELP REACH THEIR ORGANISATION'S NET-ZERO GOALS.

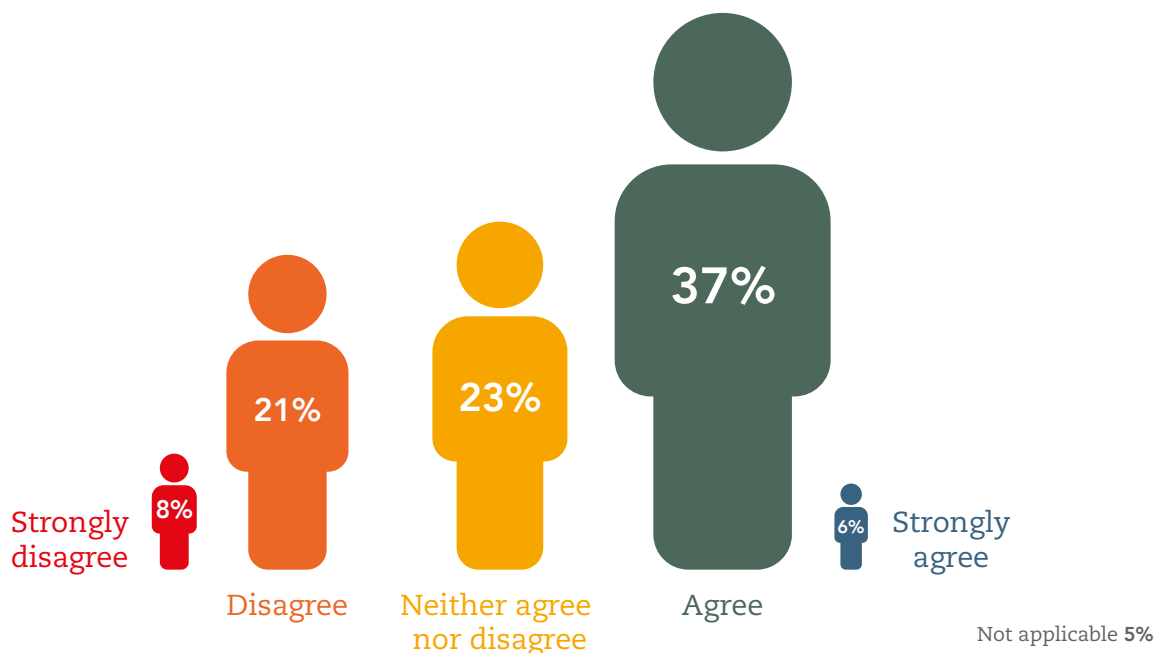


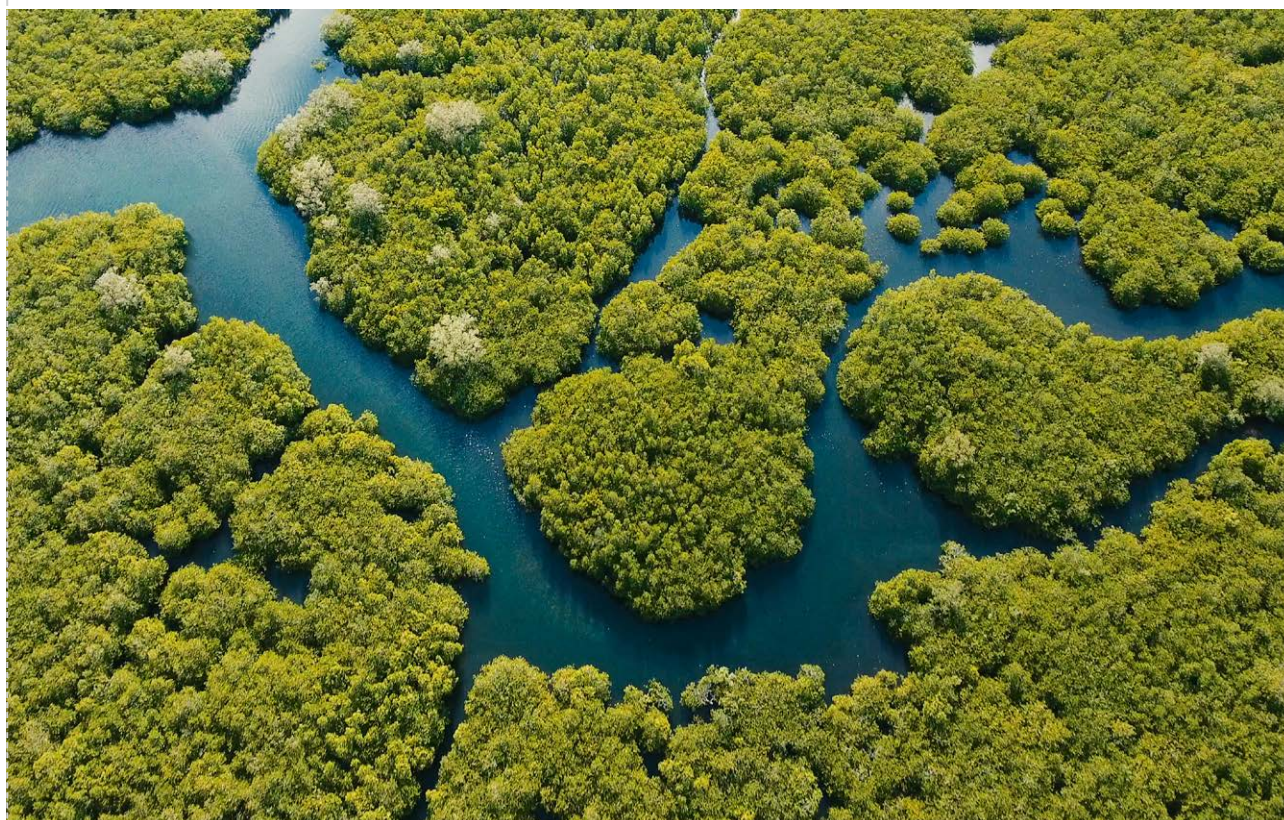
FIGURE 3.2: Do you have the right level of resource to help your organisation reach its net-zero goals?

Source: ACCA and IMA GECS (2023)

Accountancy and finance skills and education

The global sustainable finance agenda continues to develop in response to dynamic and interlocking factors that are reshaping the skills that financial professionals need.

- 1. There is evolving scientific understanding of the world's trajectory on climate change and biodiversity loss, and the resulting risks.**
 - The IPCC sixth assessment report in 2022 has made it clear that the window of opportunity to make the sweeping changes needed to stave off the worst impacts of climate change has nearly shut.
- 2. There is an increase in official sector frameworks and instruments to align finance with sustainability priorities.**
 - Approximately 700 different policy and regulatory measures are in place in more than 60 countries, alongside an evolving array of international standards on: disclosure and data; classification frameworks; risk assessment/management and scenario analysis; and prudential tools.
 - At least 27 central banks or banking supervisors have been conducting or have concluded scenario analysis exercises in the past two years. Different approaches make it harder to compare potential impacts: supervisors have employed at least six unique measures of credit risk impact.
 - Classification frameworks are also proliferating, with taxonomies currently under development in 24 jurisdictions around the world.
- 3. There is a huge acceleration in market activity to raise the ambition of businesses' climate and sustainability strategies.**
 - Progress to net-zero is a barometer for climate ambition in the private sector. More than 25 net-zero coalitions have been launched through the Glasgow Financial Alliance for Net Zero (GFANZ), covering sectors such as energy, agriculture, industry, transport and buildings.
- 4. Market demand, consumer preferences and stakeholder expectations are evolving rapidly.**
 - US\$580bn has been invested in ESG funds and over US\$1.4 trillion of ESG debt has been issued; issuance could hit US\$3.8 trillion by 2025 (IIF 2022). Achieving net-zero targets by 2050 might require total climate bond value to reach US\$36 trillion by 2025 and over US\$60 trillion by 2030.
 - There have been major upswings in engagement and expectations, and a shift in societal sentiment about climate action and the role of finance.



ACCA and sustainability skills

Sustainability is already firmly integrated within the ACCA core qualification as one of the seven capabilities we believe all professional accountants need.

All ACCA students cover topics such as the Integrated Reporting framework, social and environmental audits, environmental management accounting, the measurement of environmental and social performance, and the impact of sustainability issues on strategy formulation, business performance and financial decisions.

ACCA also helps members continue to build their green finance skills with a range of learning opportunities. Our Career Navigator tool (careernavigator.accaglobal.com) for students and members places great stress on sustainability capabilities, and sustainability is one of our essential CPD packages, assembling all resources on the topic in one place in the CPD section of our website (accaglobal.com/cpd). Two of those resources are the ACCA Certificate in Sustainability for Finance and the ACCA/CFA Climate Finance course.

ACCA and CFA climate finance course

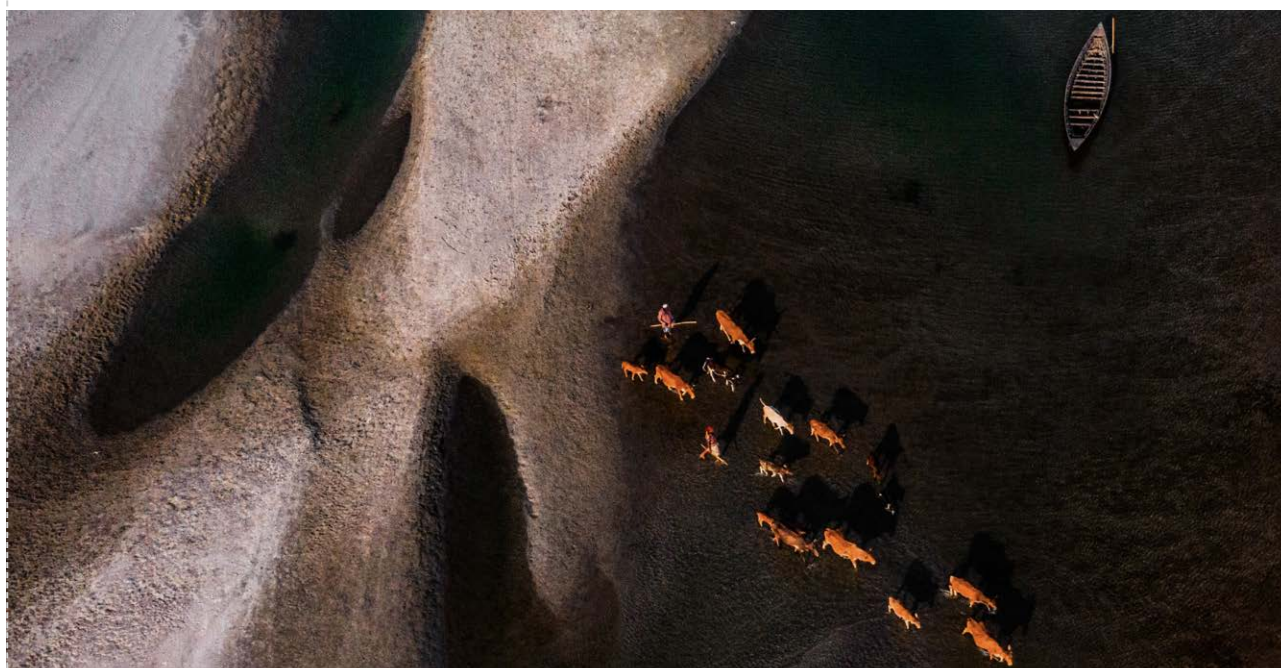
This course counts as verifiable continuing professional development (CPD) and requires around 10 hours of self-paced study.

- It provides an introduction to climate change and its related economic and environmental impacts, as well as possible solutions to climate-related problems.
- It covers climate change, carbon pricing, sustainable business models, and climate risk and opportunities in the context of business, as well as portfolio construction and investment analysis.
- It presents the topic from the perspectives of both issuers of securities and investors in them, making it suitable for diverse audiences.
- It is a practical and applied digital course for business, finance and accounting professionals that is also useful for individuals seeking practical guidance on climate change and related finance matters.

ACCA Certificate in Sustainability for Finance (Cert SF)

The Cert SF consists of five courses, imparting 16 hours of interactive, experiential learning. It equips participants with the skills, knowledge and confidence to lead on sustainability issues in their organisation.

- **Course 1** develops a core understanding of sustainability and what it means for the planet, people and your organisation.
- **Course 2** explains how to reduce your organisation's impact on the planet, while building organisational resilience.
- **Course 3** teaches how to take the opportunities for value creation offered by the UN's Sustainable Development Goals.
- **Course 4** looks at how to measure and manage performance related to environmental, social and governance issues.
- **Course 5** covers sustainability analytics – ESG data types, sources, tools and techniques.



IBF and MAS skills and competencies

The Institute of Banking and Finance Singapore (IBF) and the Monetary Authority of Singapore (MAS) have set out 12 technical skills and competencies for roles in sustainable finance. IBF and MAS are encouraging financial institutions to design training programmes for the key skills, although many such courses could also be applied across other industries.

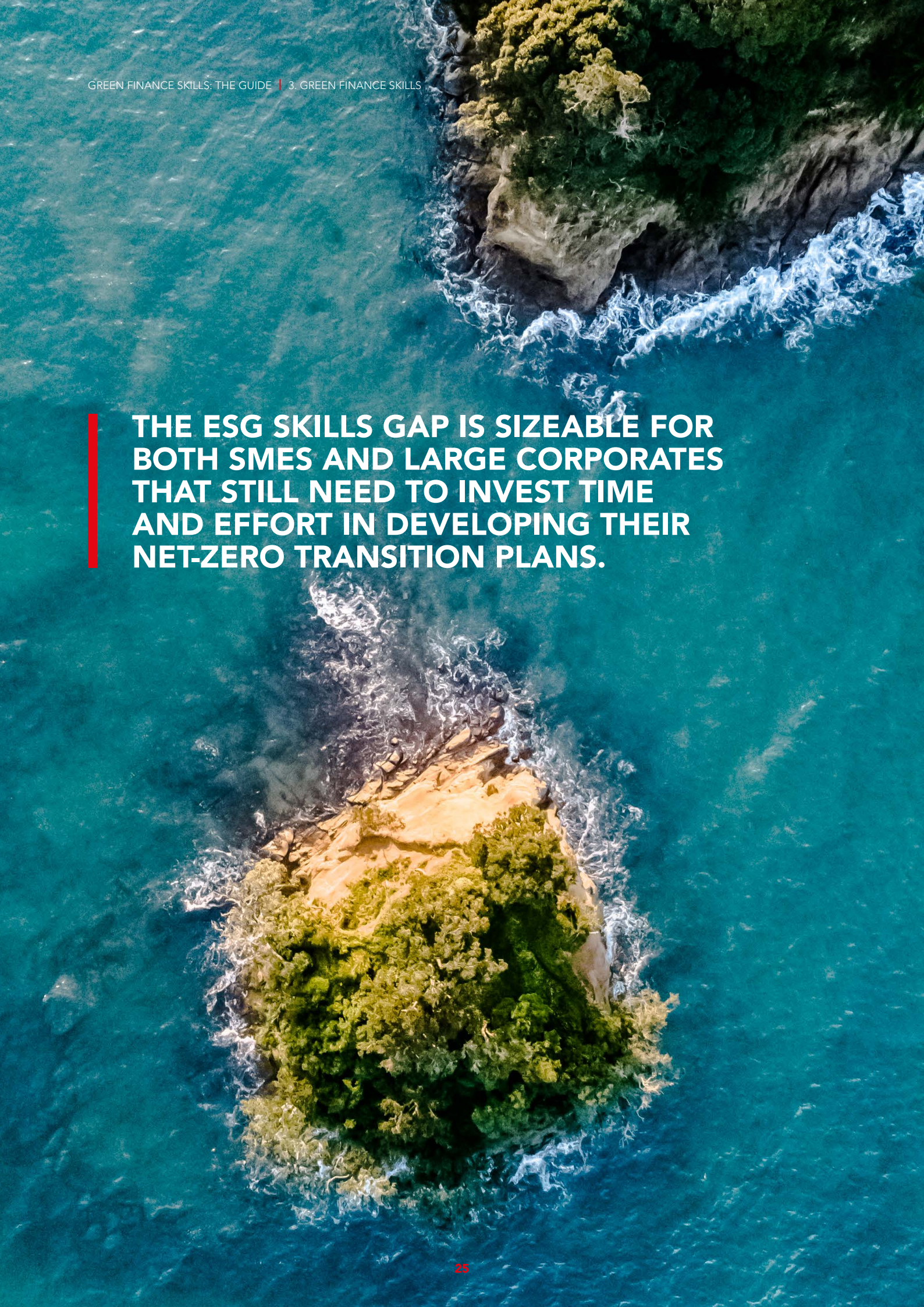


The skills are needed for finance roles in sales, distribution and relationship management, product development and management, operations, risk compliance and legal. They are also needed by sustainable finance professionals, such as chief sustainability officers, staff working in sustainability reporting and investor relations, advocacy and stewardship, and sustainability product specialists (see Student Accountant 2020).

The 12 skills and competencies

1–8 apply to all sectors, 9–12 are specific to financial services.

- 1. Carbon markets and decarbonisation strategies management.** Lead the organisation's strategy and policies in response to carbon policy, market developments and decarbonisation strategies. Provide support for the organisation and clients in their efforts to decarbonise and become net-zero emitters (IBF Singapore 2022a).
- 2. Climate change management.** Synthesise information on climate change and climate policy developments to shape the organisation's strategies, policies, products and/or services (IBF Singapore 2022b).
- 3. Natural capital management.** Develop market research on natural capital and lead the organisation's strategies and policies on natural capital and market development response (IBF Singapore 2022c). See also ACCA's report Professional Accountants Changing Business for the Planet: A Guide to Natural Capital Management (ACCA 2020).
- 4. Taxonomy application.** Analyse and shape the organisation's strategy, policies, practices and relevant business activities in response to key domestic, regional and global taxonomies that classify green and transition economic activities (IBF Singapore 2022d).
- 5. Impact indicators, measurement and reporting.** Analyse, monitor and report impact of sustainability actions, and lead the organisation in setting impact mission and targets for the organisation or customers (IBF Singapore 2022e).
- 6. Sustainability reporting.** Lead development of the organisation's sustainability reporting and accounting policies and processes in line with regulatory requirements and international best practices (IBF Singapore 2022f).
- 7. Sustainability risk management.** Develop frameworks, strategies and policies for managing sustainability risks for the organisation to minimise and mitigate risks, and the impact of both upon and by the organisation (IBF Singapore 2022g).
- 8. Sustainability stewardship development.** Lead the development of the organisation's stewardship strategy, focus areas, policies and practices, and implement stewardship to achieve the organisation's investment and sustainability goals (IBF Singapore 2022h).
- 9. Non-financial-industry sustainability developments.** Synthesise sustainability-related risks, opportunities and market developments of the non-financial industries, and their impact and application to the organisation and the financial sector (IBF Singapore (2022i).
- 10. Sustainable insurance and reinsurance solutions and applications.** Develop new and/or existing sustainable insurance and/or reinsurance services, aligned with international best practices and supporting customers in improving their sustainability performance over time (IBF Singapore 2022j).
- 11. Sustainable investment management.** Lead the organisation's strategies on sustainable investment and implement sustainable investment concepts and approaches on portfolio management (IBF Singapore 2022k).
- 12. Sustainable lending instruments structuring.** Structure key sustainable lending instruments, which include bonds, loans, project and trade financing, derivatives, blended finance, and developing incentive mechanisms to encourage adoption of these instruments (IBF Singapore 2022l).

An aerial photograph of a rugged coastline. The water is a vibrant turquoise color, with white foam from waves crashing against dark, jagged rock formations. A large, flat, light-colored rock outcrop is visible in the lower half of the image, partially covered by dense green vegetation. The overall scene conveys a sense of natural beauty and environmental focus.

THE ESG SKILLS GAP IS SIZEABLE FOR BOTH SMES AND LARGE CORPORATES THAT STILL NEED TO INVEST TIME AND EFFORT IN DEVELOPING THEIR NET-ZERO TRANSITION PLANS.

4. Sustainable business models, value chains and sustainable economy

A sustainable business model provides the mechanism for organisations to achieve their short-, medium- and long-term strategic goals and plans in line with their agenda for sustainability, climate change and transition to net-zero. Accountancy and finance professionals can ensure the business case is strong, sustainability and climate commitments are fulfilled, opportunities and value are realised, ESG risks managed, and business practices transformed and improved.

Sustainable business model example

Figure 4.1 shows the linkage between the key components of sustainability, and Table 4.1 sets out a range of factors on which these components depend.

Sustainability overview

Table 4.2 outlines details of the sustainability components illustrated in Figure 4.1.

FIGURE 4.1: Key components of sustainability



TABLE 4.1: Overview of key sustainability considerations

SUSTAINABILITY KEY CONSIDERATIONS	OVERVIEW
A. Sustainability strategy alignment	- Strategic goals and plans should clearly define the organisation's commitments and pledges on sustainability, climate and net-zero emissions and its plans to fulfil them, and also set out the relevant factors to consider, such as financial resources, business operations, customers, supply chains and the economy. - Accountants and finance professionals can help define achievable, realistic and timely strategic ESG goals, measures and opportunities (eg adoption of clean energy, water security, sustainable transport).
B. Sustainable business model	- Sustainable business models should align business and stakeholder requirements and embed ESG factors across the organisation. The business models should illustrate how strategic goals for sustainability, climate and net-zero emissions translate to business function objectives, principles, policies, procedures and activities. A sustainable business model places sustainability at the core of the people, processes and systems (data and infrastructure) needed to achieve required outcomes. - Accountants and finance professionals can support the development of sustainable business models and embed them through process identification and improvement, identify key stakeholder requirements, ascertain current status of the business model and operations, highlight performance gaps, provide recommendations and action plans, define and embed best practices (eg cost optimisation by improving energy efficiency, waste management, use of sustainable materials).

TABLE 4.2: Overview of key sustainability components

SUSTAINABILITY KEY COMPONENTS	OVERVIEW
A. Environmental impact	- The model should consider the impact of the organisation on the environment, and the measures required to enable environmental (including climate) adaptation, risk mitigation and building resilience. A sustainable business model should promote use of renewable resources that reduce carbon emissions and waste, prevent pollution, and protect and renew biodiversity, nature and the environment. - Accountants and finance professionals can contribute to the definition of the organisation's priority environmental indicators, focusing on targets, metrics, KPIs and measures to enable continuous performance assessment and impact monitoring, to provide climate and nature-related financial disclosures, and to recommend improvements.
B. Social impact	- The model should enable organisations to focus more closely on social indicators to create meaningful change across the business and the ecosystems it affects. For example, it could prioritise equality, diversity and inclusion of the workforce and suppliers, encourage community engagement and development, implement measures for employee wellbeing, health and safety, and adhere to human rights and labour laws. - Accountants and finance professionals can support prioritisation of social indicators and review the investment needed to drive change; assess performance against KPIs and related measures; ensure added value is derived for the organisation and key stakeholders; and strengthen efforts to align with and achieve the UN Sustainable Development Goals.
C. Opportunities and challenges	- The business model should provide a mechanism and approach for identifying sustainability-related opportunities arising from market trends, emerging technology and available resources that will achieve ESG goals. The model should also incorporate an approach to identifying and managing challenges the organisation may encounter. - Accountants and finance professionals can play a key role in identifying and assessing both opportunities and challenges for the organisation – eg investments in clean technology, divestment from 'brown' assets and an end to environmentally harmful activities.
D. Value chain	- The model should aim to drive responsible and sustainable value chains that can maintain profitability at every stage of the business process and transaction lifecycle and create sustainable economic value, while having a neutral impact on the environment and yielding positive social benefits. - Accountants and finance professionals can support the development of value-adding strategies for organisations, and review the financial performance of business activities across the end-to-end value chain. They can provide recommendations for cost optimisation and revenue generation, so as to achieve both profitability and positive sustainability outcomes.

ACCOUNTANCY AND FINANCE PROFESSIONALS CAN ENSURE THE BUSINESS CASE IS STRONG, SUSTAINABILITY AND CLIMATE COMMITMENTS ARE FULFILLED, OPPORTUNITIES AND VALUE ARE REALISED, ESG RISKS MANAGED, AND BUSINESS PRACTICES TRANSFORMED AND IMPROVED.

Conclusion:

Key takeaways and a call to action

The world's 'race to zero' is being run up a hill that gets steeper with every day that carbon emissions continue to rise. As a result, greater total emissions reductions are required over an ever shorter period. Even with carefully managed decarbonisation pathways, disruption to societies, economies and businesses is inevitable, according to the latest science.

This report has discussed the role of green finance as a mechanism for reaching net-zero carbon emissions. At the time of ACCA's GECS research in Q2 2022, 63% of respondents said they were either likely to use green finance or would possibly use it. This is encouraging for the profession because the organisational transition to net-zero requires financial professionals to offer organisations more support in expanding their awareness and knowledge of green finance.

Green finance offers a great **opportunity** for the profession to take the net-zero lead and help transform their organisations into sustainable entities that create long-term value. By embracing green finance, organisations can meet their net-zero targets.

63% OF RESPONDENTS SAID THEY WERE EITHER LIKELY TO USE GREEN FINANCE OR WOULD POSSIBLY USE IT.

(AT THE TIME OF ACCA'S GECS RESEARCH, Q2 2022)

Call to action: how professional accountants can drive organisations to net-zero

1. Support the business in defining net-zero strategies and setting targets (near term to 2030, long term to 2050) to reduce emissions across operations and the wider value chain.
2. Develop ESG strategies and sustainable business models, using a sustainable investment/green financing approach. Ensure skills development and knowledge sharing on green finance across your organisation (including boards, C-suite and management).
3. Take a lead role in driving the green finance agenda. Help to identify, assess and advise on the costs, benefits, challenges and opportunities from the net-zero transition journey.
4. Enhance your understanding and awareness of green finance products, and of how to access and use them to achieve tangible ESG and economic impacts.
5. Establish appropriate policies, procedures, methods and practices to enhance ESG data insights. Enable sustainability accounting and disclosures that meet the requirements of key stakeholders.



GREEN FINANCE OFFERS A GREAT OPPORTUNITY FOR THE PROFESSION TO TAKE THE NET-ZERO LEAD AND HELP TRANSFORM THEIR ORGANISATIONS INTO SUSTAINABLE ENTITIES THAT CREATE LONG-TERM VALUE.

Appendices

A. Glossary

Green finance commonly used terms

TERM	DESCRIPTION
Green finance	Refers to financial investments made through structured financial instruments (eg green bonds/sustainability-linked loans) that enable sustainable development initiatives to achieve positive environmental outcomes, meaningful social impacts and stronger governance, while providing competitive rates of financial return.
Carbon accounting	Carbon/GHG accounting is the approach used to assess and estimate the emissions a business emits measured as an equivalent amount of carbon dioxide.
Carbon emissions (greenhouse gases – GHG)	Carbon emissions are generated from the production or use of products or services that release carbon-containing gases such as carbon dioxide (CO ₂) and methane (CH ₄). Carbon emissions from business activities are classified as: • Scope 1: direct emissions from a company's own operations (eg energy use, production, vehicle use) • Scope 2: indirect emissions created through the purchase of utilities and generated by production facilities (eg purchase of electricity, heat, building cooling) • Scope 3: all other indirect emissions from outside an organisation's ownership or control, but in the value chain (eg business travel, procurement from suppliers, product use).
Climate finance	Local, national or transnational financing drawn from public, private and alternative sources of financing that seek to support mitigation and adaptation actions that will address climate change (United Nations Framework Convention on Climate Change n.d.b).
Carbon offsetting	Carbon emission reduction/removal or increase in storage to compensate for emissions made elsewhere owing to industrial/business or human activity. Offsets are measured in tonnes of CO ₂ -equivalent.
Carbon reduction	Reduction in carbon/GHG emissions through initiatives that either reduce consumption of carbon-intensive products and services (eg energy efficiency) and/or transition to low/zero-carbon sources (eg renewable energy).
Climate adaptation and mitigation	Actions taken to put in place as preventative or coping measures to enable adjustments that can support the management of actual or expected climate change effects (eg methods of improving water conservation or energy efficiency, or of monitoring environmental changes).
Climate resilience	Ability to forecast, prepare and respond to climate-related physical hazards/trends (eg floods, storms, wildfires, heatwaves) and business vulnerability to disturbances.
Environmental, social and governance (ESG)	An investor community construct which focuses upon the core elements of the transition through decision-making processes and providing confidence to markets in certain areas. Often used synonymously with sustainability but has subtle differences.

TERM	DESCRIPTION
ESG investing	Refers to investments that aim to promote a healthy environment, social responsibility and good governance, including investments that will reduce corporate GHG emissions – one of the main causes of climate change.
Financed emissions	Carbon/GHG emissions associated with a financial institution's loans and investments in a reporting year.
Greenwashing	The provision of misleading information or unsubstantiated claims that a company's products, services or activities are more environmentally beneficial or less harmful than they actually are.
Green investment funds	Funds that invest only in companies and projects considered to be environmentally and socially responsible, and committed to sustainable development.
Glasgow Financial Alliance for Net Zero (GFANZ)	A UN-backed 'Race to Zero' global initiative that brings together existing and new net-zero finance initiatives in one sector-wide coalition to accelerate the transition to a net-zero global economy. Includes 450+ member financial firms with US\$130+ trillion in assets under management.
Just transition	A process that seeks to ensure that no-one is left behind as we move to a net-zero economy, while the benefits are maximised in a way that is fair and inclusive. This requires management of financial, political and social risks, while balancing complex trade-offs between social, economic, environmental issues and carbon reduction goals.
Net-zero	When human-caused carbon emissions are balanced by their removal as a result of human agency over a specified period.
Net-Zero Banking Alliance (NZBA)	Industry-led initiative, convened by the United Nations Environment Programme Finance Initiative (UNEP FI) and accredited by Race to Zero, which brings together financial organisations with 40% of global banking assets. Member banks have committed to aligning lending and investment portfolios with net-zero emissions by 2050, and set an intermediate target of 2030, using science-based guidelines.
Paris Agreement Capital Transition Assessment (PACTA)	A free, open source methodology and tool for measuring financial portfolios' alignment with various climate scenarios consistent with the Paris Agreement (Green Finance Platform 2021, United Nations n.d.a).
Partnership for Carbon Accounting Financials (PCAF)	Industry-led global initiative to enable a standardised approach for financial institutions to consistently assess and disclose carbon/GHG emissions associated with their loans and investment portfolios.
Science-based target	Carbon/GHG emissions targets are considered 'science-based' if they are in line with the latest climate science estimates of what is needed to meet the Paris Agreement goals (ie to limit global warming to 1.5C above preindustrial levels) (United Nations n.d.a).
Science Based Target initiative (SBTi)	Joint initiative of CDP, UN Global Compact, World Resources Institute and World Wide Fund for Nature intended to increase corporate ambition on climate action by mobilising companies to set carbon/GHG reduction targets consistent with the level of decarbonisation required by science to limit warming to less than 1.5–2C.
Sustainability	An organisation's approach to creating long-term value by taking into consideration how it operates in the ecological, social and economic environments. It is built on the assumption that developing such strategies ensures an organisation's longevity.

Green finance products

PRODUCT	DESCRIPTION
Carbon credits	Financial instruments that provide the holder with the rights to trade the unused portion of a specified amount (allowance) of carbon they have permission to emit. A carbon credit is an emissions unit that is issued by a carbon crediting programme and represents an emissions reduction or removal of GHGs. Carbon credits are uniquely serialised, issued, tracked and cancelled by means of an electronic registry.
Green bonds	Fixed-income financial instruments that are asset-linked and backed by the issuing entity's balance sheet, and specifically designed to raise money for new and existing environmental and climate projects for sustainable development, such as: • circular economy products and tech (eg reuse, recycle, refurbish materials) • conservation (protection of biodiversity, nature and marine environments) • clean transport (eg hybrid/electric vehicles and associated infrastructure) • climate change adaptation and mitigation (eg coastal flooding defence systems and infrastructure, weather warning systems) • energy efficiency (eg energy storage, smart grids, waste-to-energy) • green buildings (eg energy-efficient buildings, with insulation) • pollution prevention and control (eg reduction of air pollution, GHG control, soil remediation, waste prevention) • renewable energy (eg solar, wind, biomass power generation) • sustainable land use and natural resources (eg environmentally sustainable agriculture, reforestation, restoration of nature) • sustainable water and waste-water management (eg clean water solutions).
Green investment funds	Designated funds that invest only in companies and projects considered to be environmentally and socially responsible, and committed to achieving sustainable development (see green bond project examples below).
Green loans	Debt instruments used exclusively to finance or refinance, in whole or in part, new and/or existing eligible projects with clear environmental benefits.
Green mortgages	Tailored mortgages to finance the purchase or refurbishment of energy-efficient and green buildings. As an incentive, borrowers can receive lower interest rates or increased loan amounts.
Social bonds	Financial instruments to raise funds for new and existing projects that address or mitigate specific social issues and/or seek to achieve positive social outcomes.
Sustainability-linked loans	Debt instruments and/or contingent facility (eg guarantee, letter of credit) that incentivises borrowers to achieve a set sustainability performance objectives/targets and metrics, KPIs, or external ESG ratings that measure performance.

B. Global Economic Conditions Survey on Climate Finance

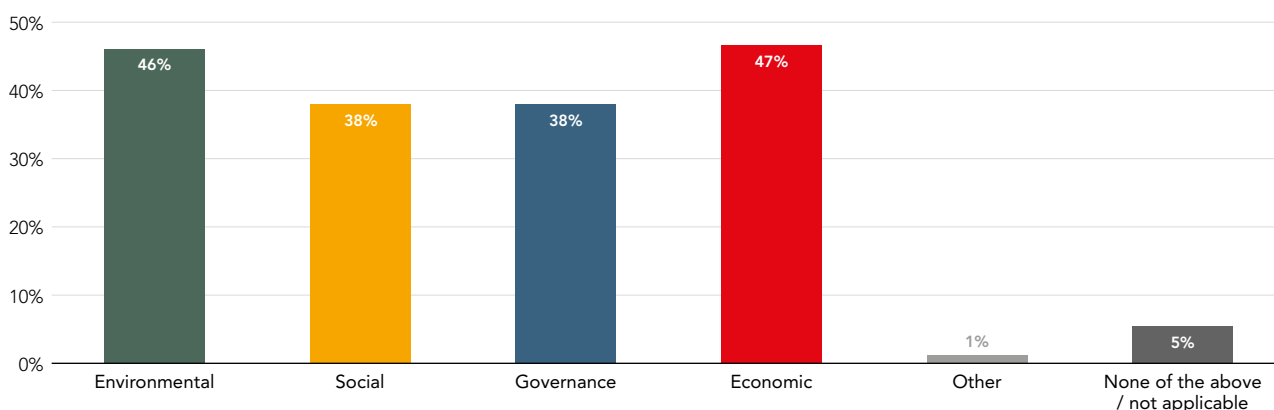
The Global Economic Conditions Survey (GECS), carried out quarterly by ACCA and IMA, is the largest regular economic survey of accountants around the world, and provides valuable insights into the views of finance professionals. In Q2 2022, it asked respondents a series of questions on climate finance. The results are outlined below.

In summary, the findings on climate finance illustrate that organisations across all global regions are:

- attaching more importance to environmental and economic factors, with 8–9% higher scores than for social and governance indicators (Figure B1)
- equally concerned about issues and costs relating to ‘lack of necessary infrastructure, technology and skills’ and ‘heavy dependency on fossil fuels and extractive industries in most countries’ as a potential challenge for scaling up green finance (Figure B2)
- thinking of ‘significant change in business practices as a key requirement to meet net-zero’; this view is most notable in Africa and South Asia, while results from Central and Eastern Europe indicate a higher score for a ‘slight change in business practices’ (Figure B3)
- in need of more support to increase awareness and knowledge of green finance products; this need is most prominent in the Caribbean, followed by the Middle East (Figures B4–B10).

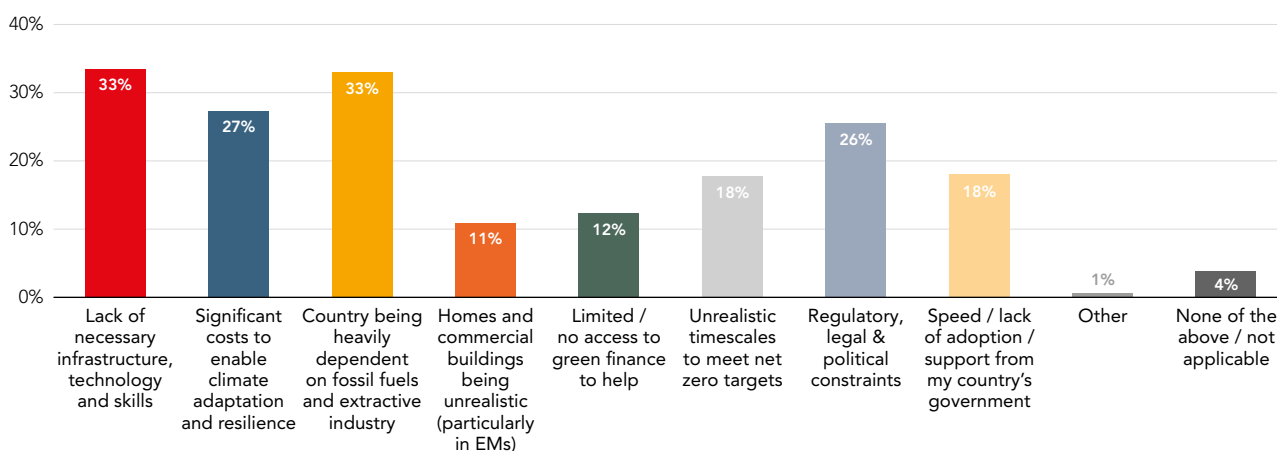
Full GECS climate finance results

FIGURE B1: Overall view across all regions of the opportunities that would be most important

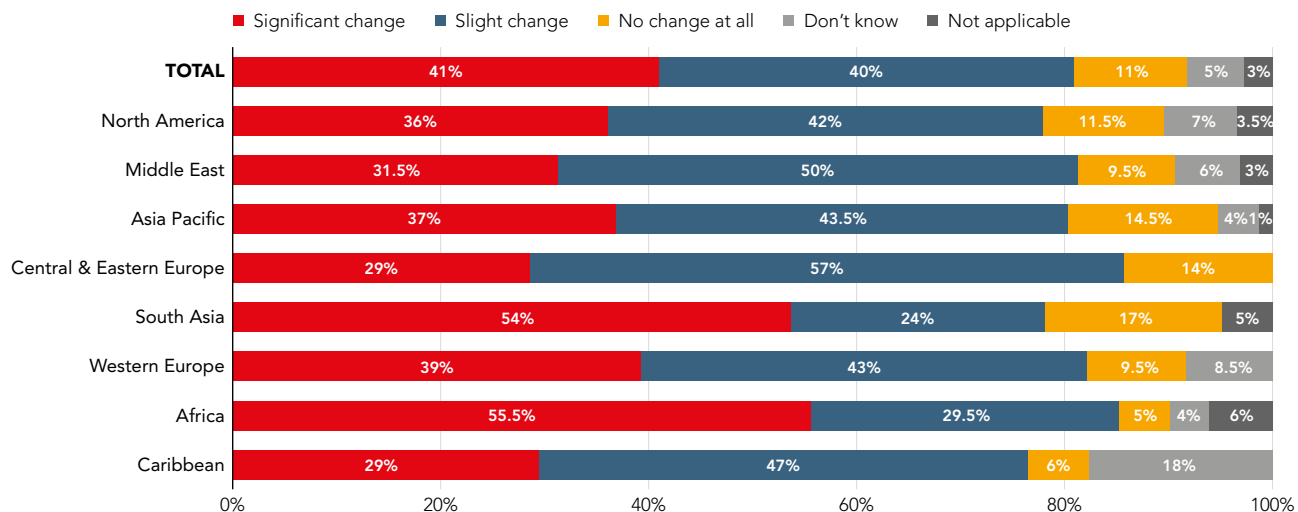


Source: ACCA and IMA GECS (2023)

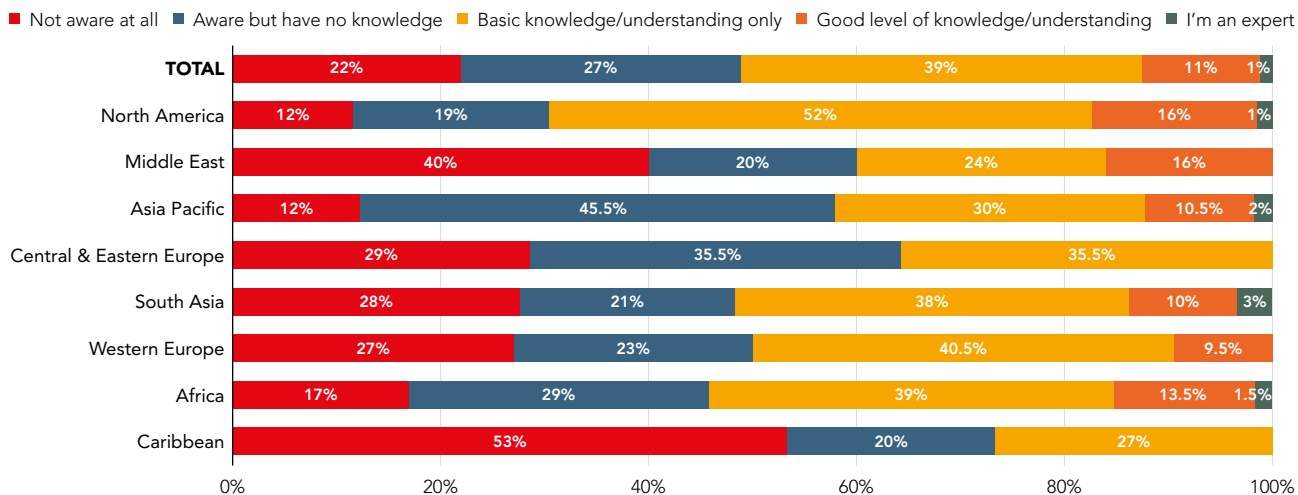
- **Environmental** (eg carbon emission reduction, circular economy innovation: recycle/reuse, energy and water efficiency, sustainable materials, responsible supply chains)
- **Social** (eg green jobs, training and skills development, employee retention, product quality, customer demand/engagement, diversity and inclusion/equality)
- **Governance** (stronger governance, risk and compliance frameworks, board composition, clear roles and responsibilities, shareholder empowerment, ethics)
- **Economic** (reduce business costs/spur innovation and technology)

FIGURE B2: Overall view across all regions of the most important costs/concerns to consider for green finance

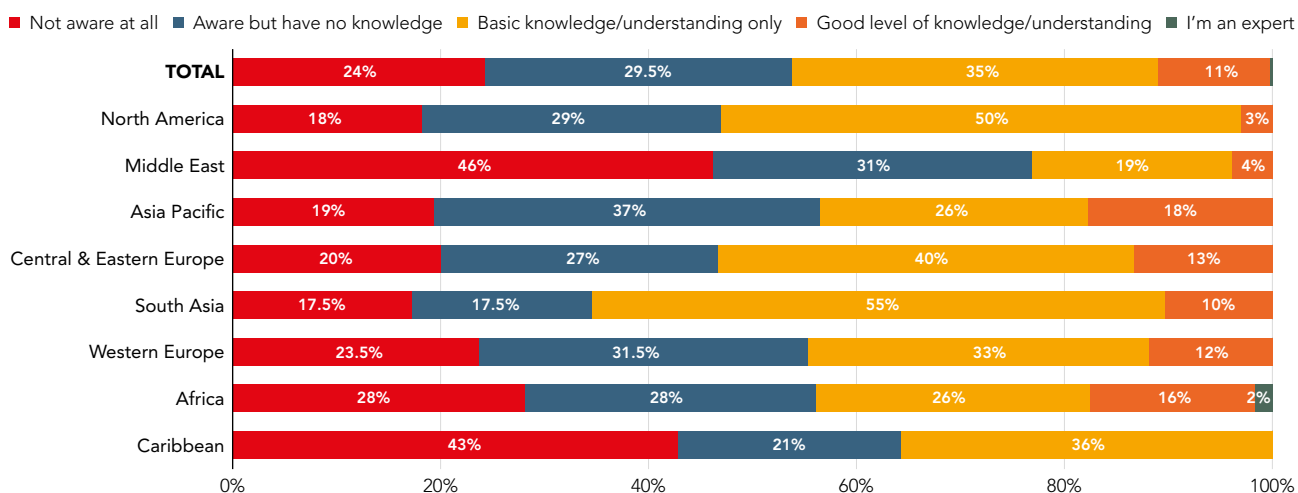
Source: ACCA and IMA GECS (2023)

FIGURE B3: Expected changes in business practices needed to reach net-zero emissions

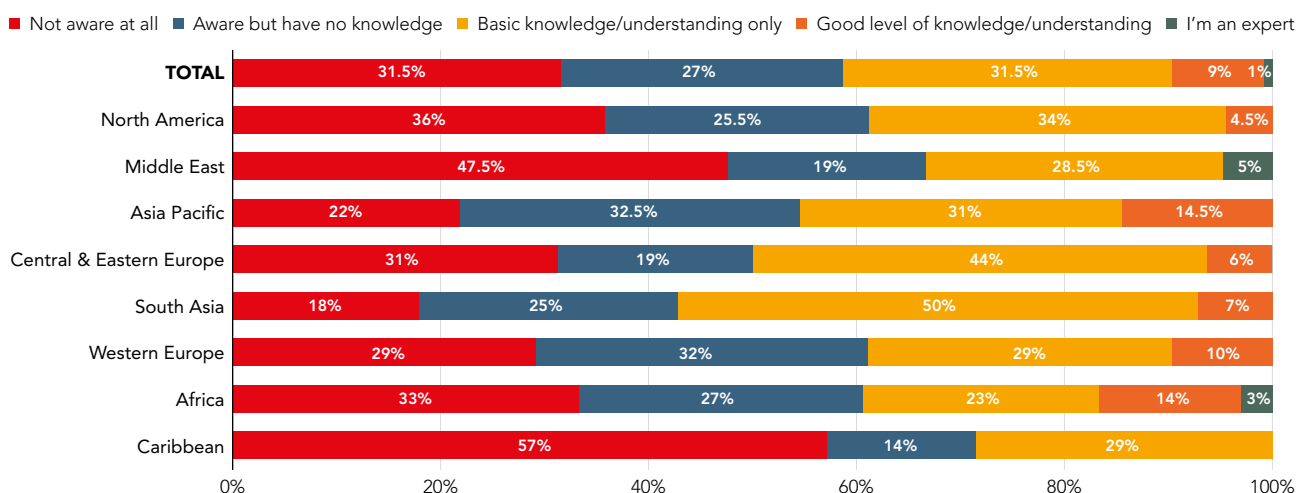
Source: ACCA and IMA GECS (2023)

FIGURE B4: Awareness of carbon credits

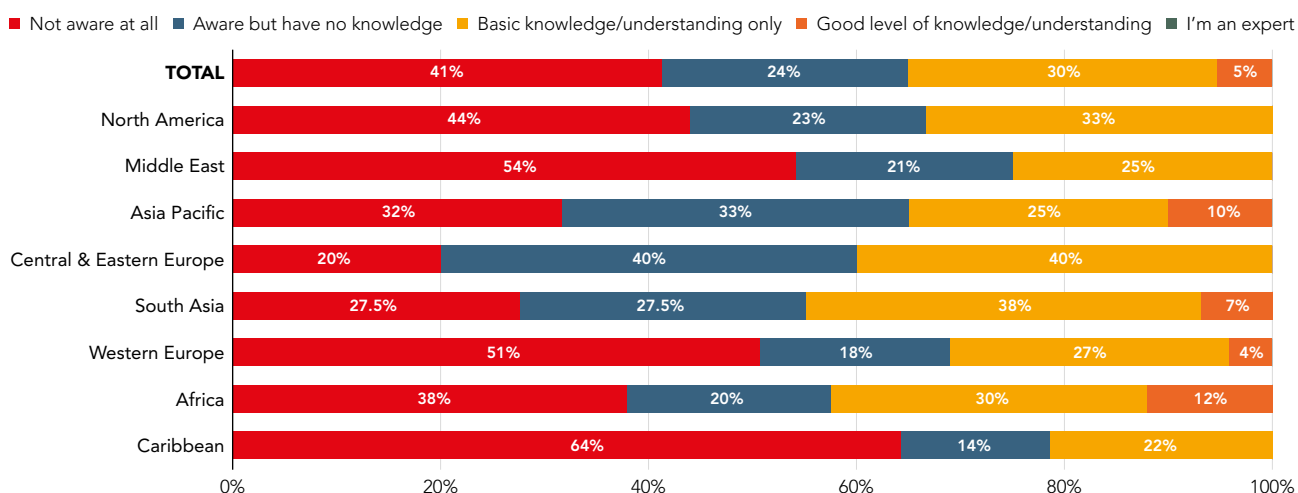
Source: ACCA and IMA GECS (2023)

FIGURE B5: Awareness of green investment funds

Source: ACCA and IMA GECS (2023)

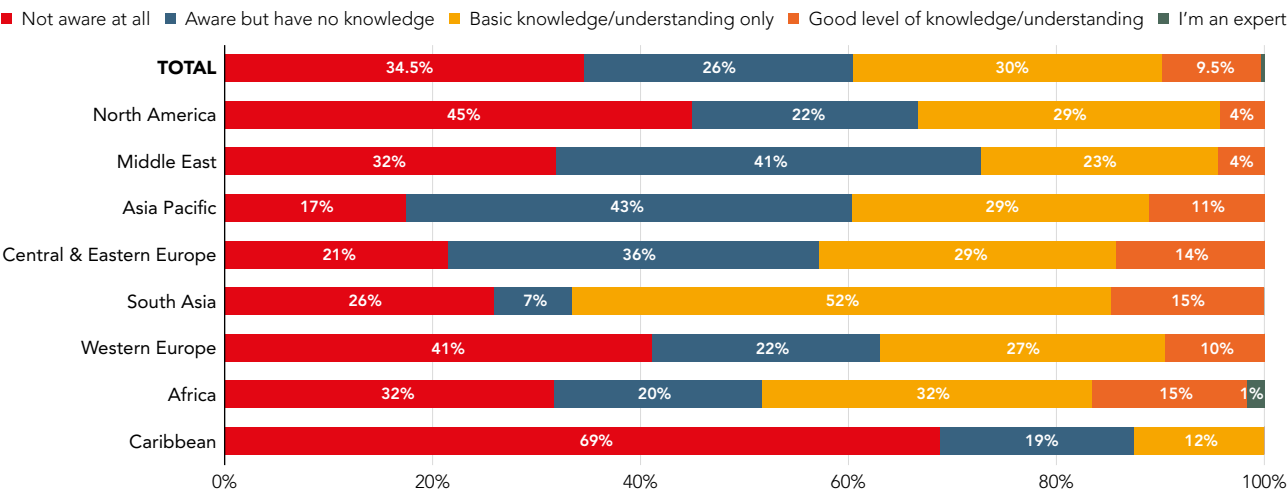
FIGURE B6: Awareness of green bonds

Source: ACCA and IMA GECS (2023)

FIGURE B7: Awareness of social bonds

Source: ACCA and IMA GECS (2023)

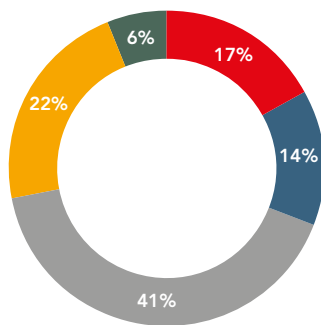
FIGURE B8: Awareness of sustainability linked loans



Source: ACCA and IMA GECS (2023)

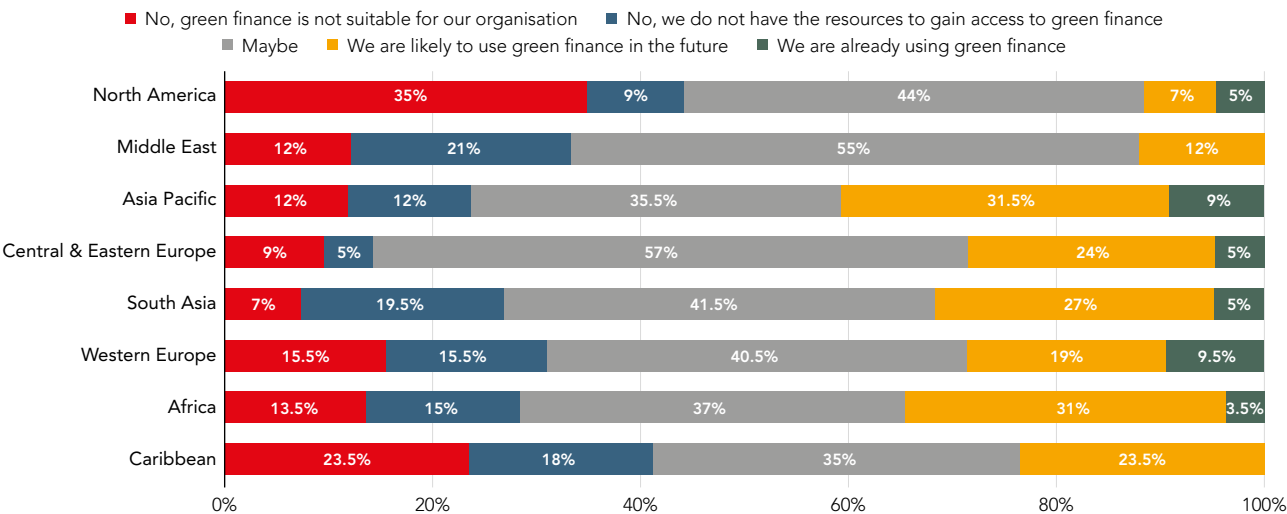
FIGURE B9: Overall view across all regions of whether green finance can be used in the organisation

- No, green finance is not suitable for our organisation, **17%**
- No, we do not have the resources to gain access to green finance, **14%**
- Maybe, **41%**
- We are likely to use green finance in the future, **22%**
- We are already using green finance, **6%**



Source: ACCA and IMA GECS (2023)

FIGURE B10: Regional views of green finance



Source: ACCA and IMA GECS (2023)

Further survey questions and results

Respondents were asked a series of questions about their own organisations' ability to achieve net-zero goals in the coming years and the factors affecting this (Figures B11–B15).

FIGURE B11: Respondents' self-assessment of finance teams' knowledge/skills for achieving net-zero emissions

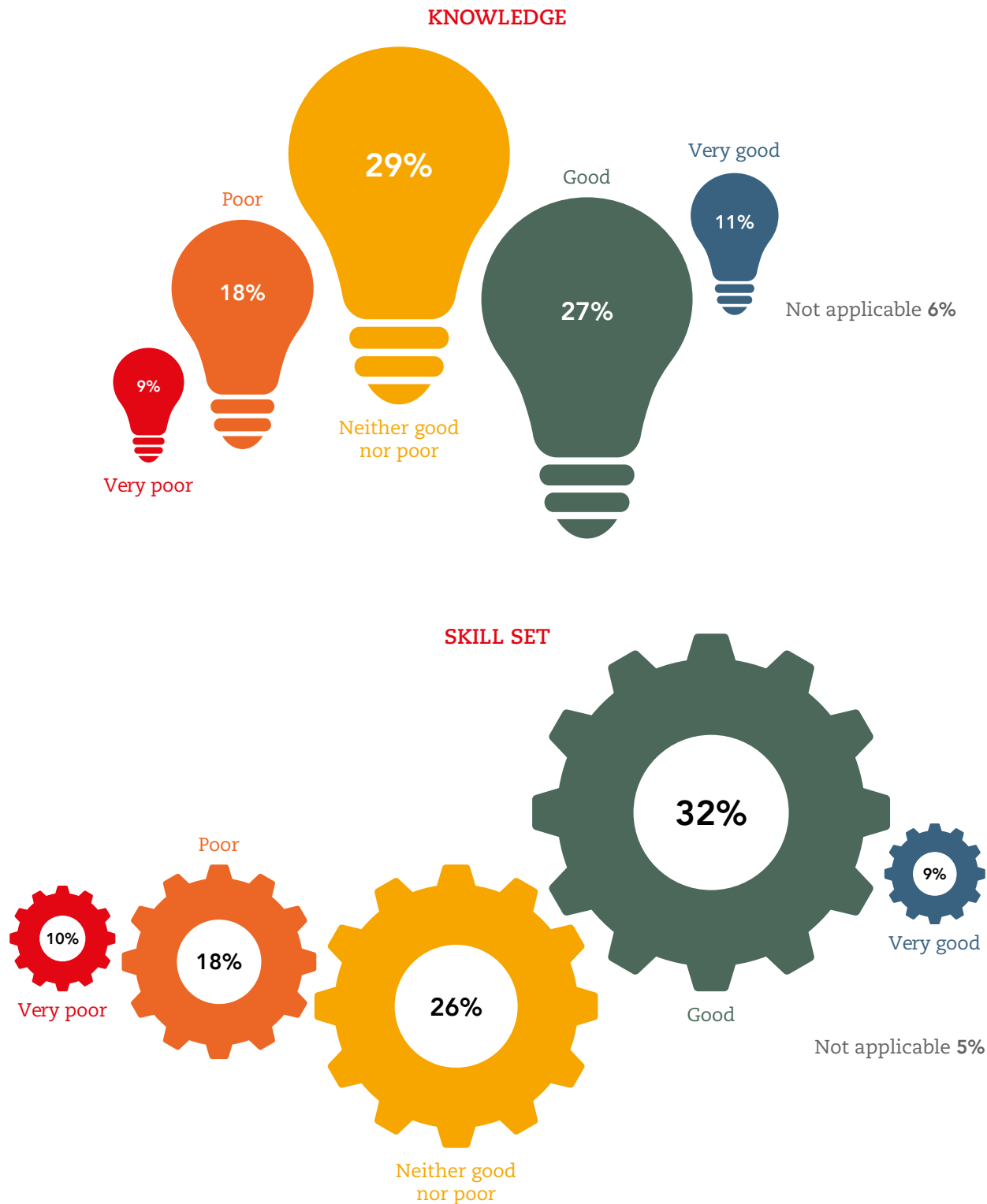


FIGURE B12: Respondents' assessment of finance teams' resources for reaching net-zero goals

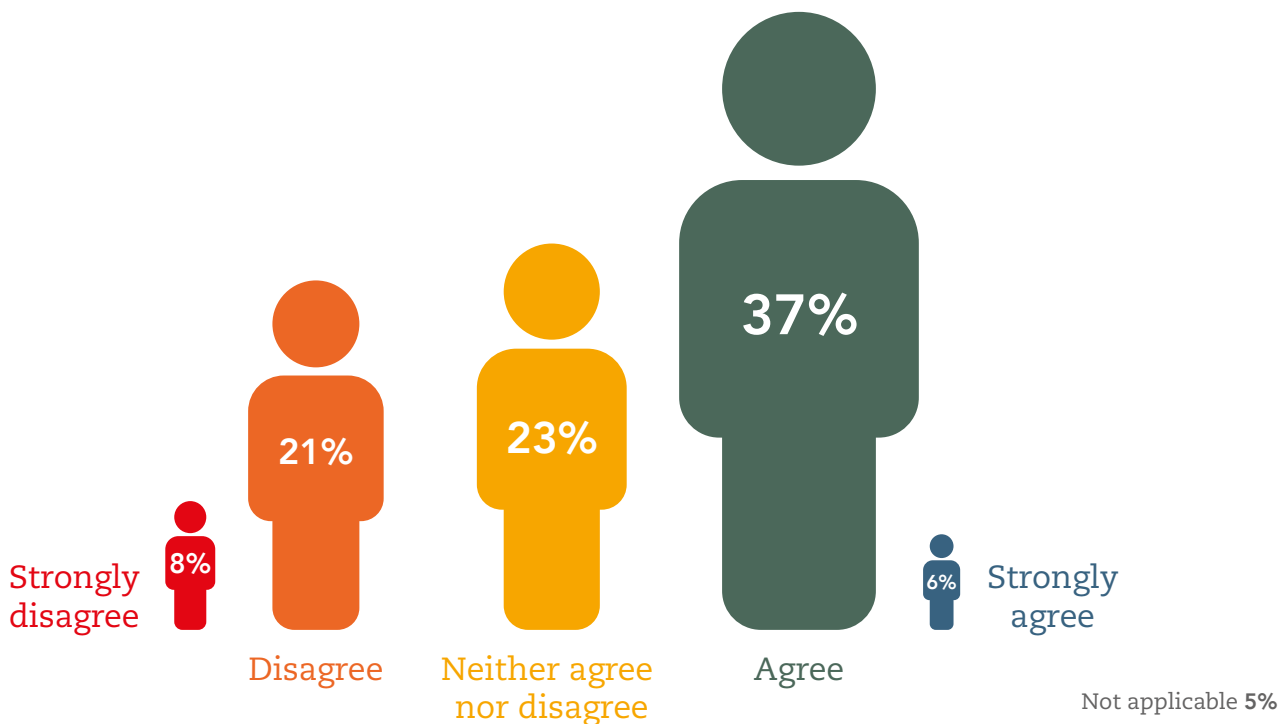


FIGURE B13: Respondent's expectation of whether their organisation will change their net zero timelines due to current cost inflation pressures

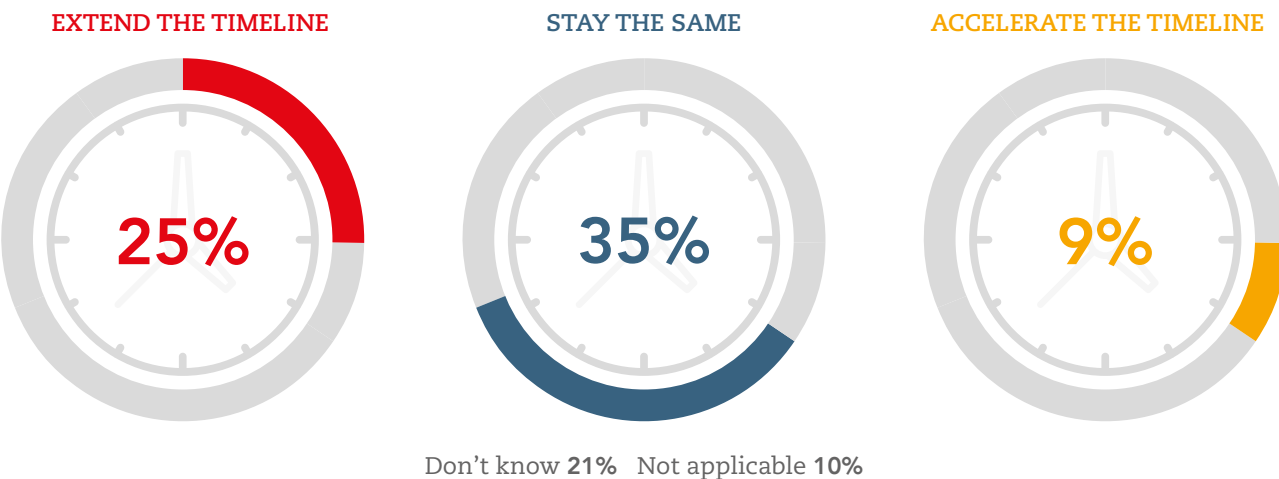


FIGURE B14: Respondents' expectations of whether their budget allocations for achieving net-zero emissions will rise or fall

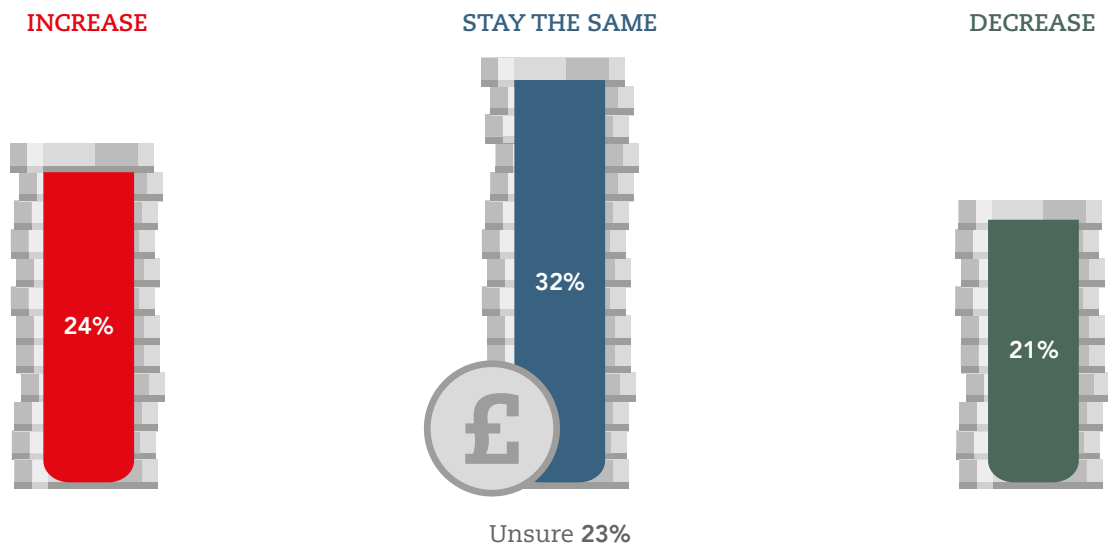
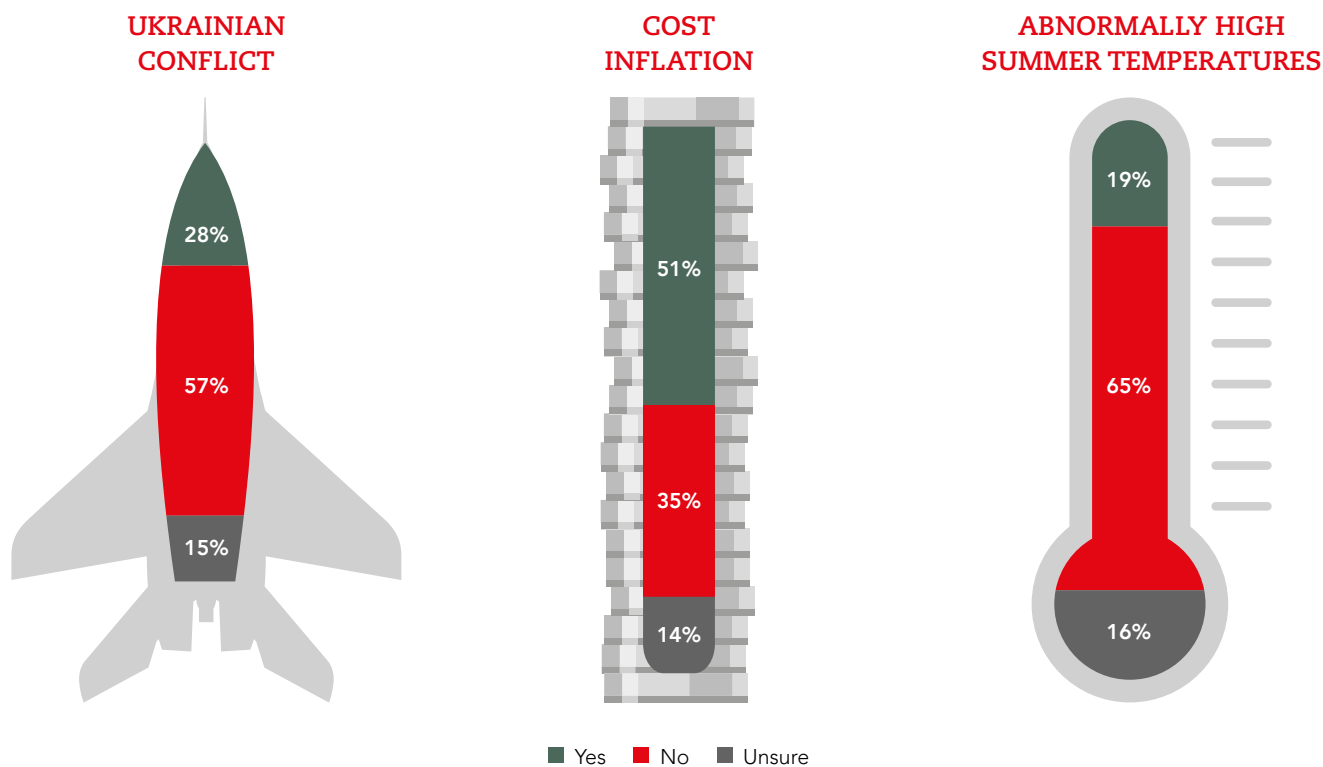


FIGURE B15: Whether organisational strategies for achieving net-zero goals have changed in light of the following events



References

ACCA (2020), *Professional Accountants Changing Business for the Planet: A Guide to Natural Capital Management*. Downloadable from <https://www.accaglobal.com/sg/en/professional-insights/global-profession/Professional_accountants_changing_business_planet.html>, accessed 27 January 2023.

ACCA (2021), *Climate Action and the Accountancy Profession: Building a Sustainable Future*. Downloadable from <<https://www.accaglobal.com/gb/en/professional-insights/pro-accountants-the-future/climate-action-accountancy-profession.html>>, accessed 25 January 2023.

ACCA Generation CFO and Chartered Accountants Australia New Zealand (2021), *Transformational journeys: Finance and the agile organisation*. Downloadable from <<https://www.accaglobal.com/hk/en/professional-insights/technology/transformational-journeys.html>>, accessed 2 February 2023.

ACCA (2022), *Planning and Performance Management Paradigm*. Downloadable from <<https://www.accaglobal.com/sg/en/professional-insights/pro-accountants-the-future/planning-and-performance-management-paradigm.html>>, accessed 26 January 2023.

ACCA (n.d.), 'Accounting for a Better World'. Website resources. <<https://www.accaglobal.com/sg/en/about-us/accounting-for-a-better-world.html>>, accessed 2 February 2023.

ACCA and IMA (2023), *Global Economic Conditions Survey, Q2 2022*, supplementary questions on green finance.

BCG (Boston Consulting Group) (2021), 'Why Climate Action Needs a Gender Focus'. Website article. <<https://www.bcg.com/publications/2021/climate-action-impact-on-gender-equality>>, accessed 2 February 2023.

Bouzidi, D. and Mills, S. (2022), 'Sovereign Sustainability-Linked Bonds: Chile Sets a High Bar'. Website article. <<https://tinyurl.com/2p9am8v8>>, accessed 3 February 2023.

CA ANZ and ACCA (2022), *How SMEs Can Create a More Sustainable World: A Playbook for Accountants in Practice and Finance Teams in Small and Medium-sized Organisations*. Downloadable from <<https://www.charteredaccountantsanz.com/tools-and-resources/practice-innovation/ca-catalyst-public-practice-stories/how-smes-can-create-a-more-sustainable-world>>, accessed 27 January 2023

Global Carbon Project (2022), <<https://www.globalcarbonproject.org>>, accessed 21 February 2023.

Green Finance Platform (2021), 'Paris Agreement Capital Transition Assessment (PACTA) for Banks'. Website article. <<https://www.greenfinanceplatform.org/tools-and-platforms/paris-agreement-capital-transition-assessment-pacta-banks>>, accessed 27 January 2023.

IBF Singapore (2022a), *Skills Framework for Financial Services Technical Skills and Competencies (TSC) Reference Document: Carbon Markets and Decarbonisation*. <<https://www.ibf.org.sg/programmes/Documents/01%20ESG%20TSCs/5.%20Carbon%20Markets%20and%20Decarbonisation%20Strategies%20Management.pdf>>, accessed 27 January 2023.

IBF Singapore (2022b), *Skills Framework for Financial Services Technical Skills and Competencies (TSC) Reference Document: Climate Change Management*. <<https://www.ibf.org.sg/programmes/Documents/01%20ESG%20TSCs/12.%20Climate%20Change%20Management.pdf>>, accessed 27 January 2023.

IBF Singapore (2022c), *Skills Framework for Financial Services Technical Skills and Competencies (TSC) Reference Document: Natural Capital Management*. <<https://www.ibf.org.sg/programmes/Documents/01%20ESG%20TSCs/6.%20Natural%20Capital%20Management.pdf>>, accessed 27 January 2023.

IBF Singapore (2022d), *Skills Framework for Financial Services Technical Skills and Competencies (TSC) Reference Document: Taxonomy Application*. <<https://www.ibf.org.sg/programmes/Documents/01%20ESG%20TSCs/1.%20Taxonomy%20Application.pdf>>, accessed 27 January 2023.

IBF Singapore (2022e), *Skills Framework for Financial Services Technical Skills and Competencies (TSC) Reference Document: Impact Indicators, Measurement and Reporting*. <<https://www.ibf.org.sg/programmes/Documents/01%20ESG%20TSCs/2.%20Impact%20Indicators%2C%20Measurement%20and%20Reporting.pdf>>, accessed 27 January 2023.

IBF Singapore (2022f), *Skills Framework for Financial Services Technical Skills and Competencies (TSC) Reference Document: Sustainability Reporting*. <<https://www.ibf.org.sg/programmes/Documents/01%20ESG%20TSCs/3.%20Sustainability%20Reporting.pdf>>, accessed 27 January 2023.

IBF Singapore (2022g), *Skills Framework for Financial Services Technical Skills and Competencies (TSC) Reference Document: Sustainability Risk Management*. <<https://www.ibf.org.sg/programmes/Documents/01%20ESG%20TSCs/4.%20Sustainability%20Risk%20Management.pdf>>, accessed 27 January 2023.

IBF Singapore (2022h), *Skills Framework for Financial Services Technical Skills and Competencies (TSC) Reference Document: Sustainability Stewardship Development*. <<https://www.ibf.org.sg/programmes/Documents/01%20ESG%20TSCs/9.%20Sustainability%20Stewardship%20Development.pdf>>, accessed 27 January 2023.

IBF Singapore (2022i), *Skills Framework for Financial Services Technical Skills and Competencies (TSC) Reference Document: Non-financial Industry Sustainable Developments*. <<https://www.ibf.org.sg/programmes/Documents/01%20ESG%20TSCs/11.%20Non-Financial%20Industry%20Sustainability%20Developments.pdf>>, accessed 27 January 2023.

IBF Singapore (2022j), *Skills Framework for Financial Services Technical Skills and Competencies (TSC) Reference Document: Sustainable Insurance and Re-Insurance Solutions and Applications*. <<https://www.ibf.org.sg/programmes/Documents/01%20ESG%20TSCs/10.%20Sustainable%20Insurance%20and%20Re-Insurance%20Solutions%20and%20Applications.pdf>>, accessed 27 January 2023.

IBF Singapore (2022k), *Skills Framework for Financial Services Technical Skills and Competencies (TSC) Reference Document: Sustainable Investment Management*. <<https://www.ibf.org.sg/programmes/Documents/01%20ESG%20TSCs/8.%20Sustainable%20Investment%20Management.pdf>>, accessed 27 January 2023.

IBF Singapore (2022), *Skills Framework for Financial Services Technical Skills and Competencies (TSC) Reference Document: Sustainable Lending Instruments Structuring*. <<https://www.ibf.org.sg/programmes/Documents/01%20ESG%20TSCs/7.%20Sustainable%20Lending%20Instruments%20Structuring.pdf>>, accessed 27 January 2023.

IBF Singapore (n.d.), 'Sustainable Finance Technical Skills and Competencies'. Website resource. <https://www.ibf.org.sg/programmes/Pages/SF_TSC.aspx>, accessed 27 January 2023.

IIA (Institute of Internal Auditors) (n.d.), <<https://www.theiia.org/globalassets/site/about-us/advocacy/three-lines-model-updated.pdf>>, accessed 2 February 2023.

IIF (Institute of International Finance) (2022), *Sustainable Debt Monitor*. Available to subscribers from <<https://www.iif.com/Products/Sustainable-Debt-Monitor>>, accessed 27 January 2023.

ILO (2022), *World Employment and Social Outlook: Trends 2018*. Website. <https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_615594.pdf>, accessed 2 February 2023.

IMD (International Institute for Management Development) (May 2022), 'Why all businesses should embrace sustainability'. Website. <<https://www.imd.org/research-knowledge/articles/why-all-businesses-should-embrace-sustainability/>>, accessed 2 February 2023.

IPCC (Intergovernmental Panel on Climate Change) (2018), *Special Report on Global Warming of 1.5C*. Downloadable from <<https://www.ipcc.ch/sr15/>> accessed 2 February 2023.

IPCC (2022a), 'Sixth Assessment Report'. Website. <<https://www.ipcc.ch/assessment-report/ar6/>>, accessed 4 February 2023.

IPCC (2022b), 'Summary for Policymakers'. Website. <https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_SummaryForPolicymakers.pdf>, accessed 2 February 2023.

OECD (2021), 'Financing SMEs for Sustainability'. Website. <<https://www.oecd.org/cfe/smes/Concept-Note-Platform-%20Financing-SMEs-sustainability-final.pdf>>, accessed 3 February 2023.

Science Based Targets (2021), *SBTI Corporate Net-Zero Standard* (October). Website. <<https://sciencebasedtargets.org/resources/files/Net-Zero-Standard.pdf>>, accessed 2 February 2023.

Our World in Data/Global Carbon Project (2022), 'Annual CO2 Emissions by World Region', website infographic. <<https://ourworldindata.org/grapher/annual-co-emissions-by-region>>, accessed 9 February 2023.

Our World in Data/Met Office (2020), 'Why do greenhouse gas emissions matter?' Website article. <<https://ourworldindata.org/co2-and-greenhouse-gas-emissions>>, accessed 9 February 2023.

Student Accountant (2020), 'Green Finance: A Beginner's Guide'. Website article, 21 October. <<https://jobs.accaglobal.com/article/green-finance-a-beginner-s-guide/>>, accessed 27 January 2023.

United Nations (n.d.a), 'The Paris Agreement. What is the Paris Agreement?' Website. <<https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>>, accessed 26 January 2023.

United Nations (n.d.b), 'Introduction to Climate Finance'. Website. <<https://unfccc.int/topics/introduction-to-climate-finance>>, accessed 27 January 2023.

UN Environment (2022), quoted in UN Human Rights Office of the High Commissioner, <<https://www.ohchr.org/en/stories/2022/07/climate-change-exacerbates-violence-against-women-and-girls>>, accessed 9 February 2023.

UN Women (2018), 'Turning Promises into Action: Gender Equality in the 2030 Agenda for Sustainable Development'. Website report. <<https://www.unwomen.org/sites/default/files/Headquarters/Attachments/Sections/Library/Publications/2018/SDG-report-Summary-Gender-equality-in-the-2030-Agenda-for-Sustainable-Development-2018-en.pdf>>, accessed 9 February 2023.

US National Oceanic and Atmospheric Administration (2022), 'Climate Change: Global Temperature', Website. <<https://www.climate.gov/news-features/understanding-climate/climate-change-global-temperature>>, accessed 15 February 2023.



