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THE BUSINESS OF CLIMATE RECOVERY:

ACCELERATING ACCOUNTABILITY, AMBITION AND ACTION

Contents

EXECUTIVE SUMMARY

WBCSD has engaged its leading member companies to develop a business implementation agenda for the 2022 United Nations Climate Change Conference (COP27) in Sharm El-Sheikh, Egypt.

The Business of Climate Recovery: Accelerating Accountability, Ambition and Action provides an overview of some of the most promising ambition and action platforms for business. It also sets out a menu of specific interventions for accelerating the global decarbonization of business, involving business leadership with closer government collaboration to:

- Sharpen **Accountability**
- Raise **Ambition** and
- Deliver **Action** at speed and scale

Collectively, these interventions with business can radically advance the international climate change agenda in the next five years. This report hopes to offer a practical response to the COP27 President's challenge for the climate agenda to move away from launching pledges and towards project implementation at scale.

In this report, leading businesses put forward proposals and policy ideas to raise the ambition level, scale up action in systems transformation and most importantly move beyond mere commitments and targets to create a holistic corporate climate accountability system that will show the progress business is making against its net zero targets, as well as crystallize the contribution of business in the delivery of Nationally Determined Contributions (NDCs).

To sharpen business **accountability**, three priorities have been identified that can all be initiated during COP27 and developed fully towards COP28:

1. Create alignment of the corporate carbon accountability system. This includes the promotion of clear and vocal business support for the ISSB Prototype under development to become the mandatory global baseline for climate reporting
2. Establish strong foundations for the carbon accounting system, by upgrading the Greenhouse Gas Protocol and developing methodologies and data exchange protocols for Scope 3 emissions;
3. Develop a Global Corporate Carbon Accounting Aggregation Mechanism, to link corporate data into national emission reduction progress reports

To raise **ambition**, five practical action areas have emerged as key priorities among WBCSD members, including for work with policymakers:

1. Get more companies to set credible targets for emissions reductions, and take accountability for their progress
2. Raise NDC ambitions in partnership with business
3. Advance partnerships with business to implement carbon pricing
4. Accelerate an equitable and inclusive net-zero transition in key business and industry sectors
5. Unlock the potential for high integrity Natural Climate Solutions (NCS)

To deliver on **action** now, for impact by 2025, WBCSD and its member companies have identified a series of focused interventions to scale progress in key economic systems (Energy, Industry, Built environment, Mobility and transport, Food and agriculture and Capital Markets). Key new action areas include:

1. Develop transition pathways and investment plans with National Oil Companies
2. Develop guidance and methodologies for avoided emissions to accelerate innovation of business solutions

WBCSD and its member companies look forward to engaging with the COP27 Presidency, and all parties and business leaders from around the world to drive the ambition, action and accountability forward and accelerate the decarbonization of business to the levels prescribed by climate science.

INTRODUCTION

Earlier this year, the Intergovernmental Panel on Climate Change's (IPCC) Sixth Assessment Report sets out the stark realities of rising greenhouse gas (GHG) emissions. It notes that the years between 2010 and 2019 witnessed the highest level of emissions compared to any other decade in human history. According to the report, global GHG emissions must fall by 43% by 2030 in order to limit the global temperature rise to below 1.5°C. This scientific guidance rests awkwardly with the reality of the recently released 2022 Nationally Determined Contributions Synthesis Report, which outlines that the combined climate pledges of today put the world on track for up to 2.6°C of warming by the end of the century. Stemming this growth requires rapid and aggressive emissions reductions across all economic sectors.

In 2022, an unprecedented number of regions worldwide experienced the consequences of climate change at 1.1°C of warming. Scientists are now calling out their concern about irreversible tipping points to Earth's systems if warming rises above the 1.5°C threshold. This means society has less than ten years to correct the current climate warming trajectory, in line with scientific advice.

The climate emergency is taking place in a challenging economic and geopolitical context for many people. As parts of the world have begun their recovery from COVID-19, many developing economies still face the disastrous economic and social consequences of rising COVID-19 cases and vaccine access inequity. Meanwhile, the Russian invasion of Ukraine has fueled an energy, food and cost of living crisis that is reverberating around the world and threatens to undermine years of progress on climate policy. Yet hope remains. Earlier this year, the United States of America passed the Inflation Reduction Act, a near USD $400 billion package and a historic piece of climate change legislation that is set to fuel green growth in the world's largest economy for the next decade.

Thus, the 27th United Nations Climate Change Conference (COP27) in Sharm El-Sheikh offers a crucial moment for global leaders to outline their plans to deliver on the goals of the Paris Agreement.

The President of COP27, Abdel Fattah El-Sisi, has called on governments and non-state actors "to showcase unity against an existential threat that we can only overcome through concerted action and effective implementation." The Egyptian Presidency is urging a rapid move by all Parties to full, timely and inclusive implementation at-scale on the ground.

WBCSD has engaged its leading member companies to help formulate a complementary business agenda for COP27 to accelerate accountability, ambition and action. *The Business of Climate Recovery: Accelerating Accountability, Ambition and Action* shows that the biggest role that business can play is to turn their net zero ambitions into action at scale, and then take accountability for their progress in decarbonizing.

On behalf of its member companies, WBCSD commends this practical, business-focused approach for accelerating accountability, ambition and action to the COP27 Presidency, and governments and other stakeholders attending COP27. It sets out a practical means of partnership to help scale climate accountability, ambition and action in line with the Paris Climate Agreement, Intergovernmental Panel on Climate Change (IPCC) guidance and WBCSD's own Time to Transform strategy. WBCSD stands ready to engage with business members, partners and other stakeholders to enact it.

At COP26, WBCSD published the Business Manifesto for Climate Recovery, which sets out 12 action priorities for global business leaders and policy-makers to halt rising temperatures and begin the climate recovery process, including for enhanced corporate accountability through Corporate Determined Contributions (CDCs). *The Business case of Climate Recovery: Accelerating Accountability, Ambition and Action* is a delivery-oriented follow up to the 2021 Business Manifesto, reflecting the Egyptian Presidency's call to focus on implementation.

ABOUT

The Business of Climate Recovery: Accelerating Accountability, Ambition and Action has been developed in collaboration with over 30 leading WBCSD member companies through a consultative process from June through October 2022. The companies who participated are engaged in high-ambition climate action both within their organizations and through many partnerships and coalitions with other key stakeholders. They represent the vanguard of leading companies engaged in the international climate action agenda.[1] An accompanying Annex to this report lists some of the specific policy suggestions and practical examples the companies identified, from much of which this report has drawn.

The prioritization set out below is drawn from the experience of these leading companies engaged in delivering net-zero implementation and facing practical challenges in scaling their actions. While they will continue to advance their work within and across multiple specific industry initiatives, these companies feel that there is clear potential for a small number of more structural, practical policy interventions involving closer government and business collaboration to accelerate implementation at scale.

This work represents the collective view of WBCSD and its member companies. While the report was developed in a consultative process with member companies, it does not necessarily represent specific or comprehensive endorsements by these member companies on any policy intervention or action.

ACCOUNTABILITY

The desire from governments, investors, civil society and other key stakeholders to hold large companies to account regarding their progress on delivering net zero targets is creating an urgent need to upgrade the current accounting system for business users. At present, there is no aggregate mechanism that adequately tracks corporate progress on the commitments and targets they have been made nor – importantly – how this corporate progress might contribute to fulfilling the climate plans set by governments (Nationally Determined Contributions – NDCs). If there were such a mechanism to track corporate progress on commitments and targets, independently verify this progress and link it to NDCs, this could usefully inform the Paris Agreement's Global Stocktake process, which aims to assess how business is contributing to the world's collective progress on achieving the agreement's ambition and long-term goals.

In order for the aggregate mechanism to work, it is vital to first understand the improvement needed at the company level. For companies that are serious about decarbonization, it is essential to put a 4-phase process (see Figure 1) in place that will deliver accountability for progress toward their targets:

Phase 1 – Ambition: set a science-based net zero target. This can be done through the Science Based Targets Initiative (SBTi) and/ or through sector roadmaps

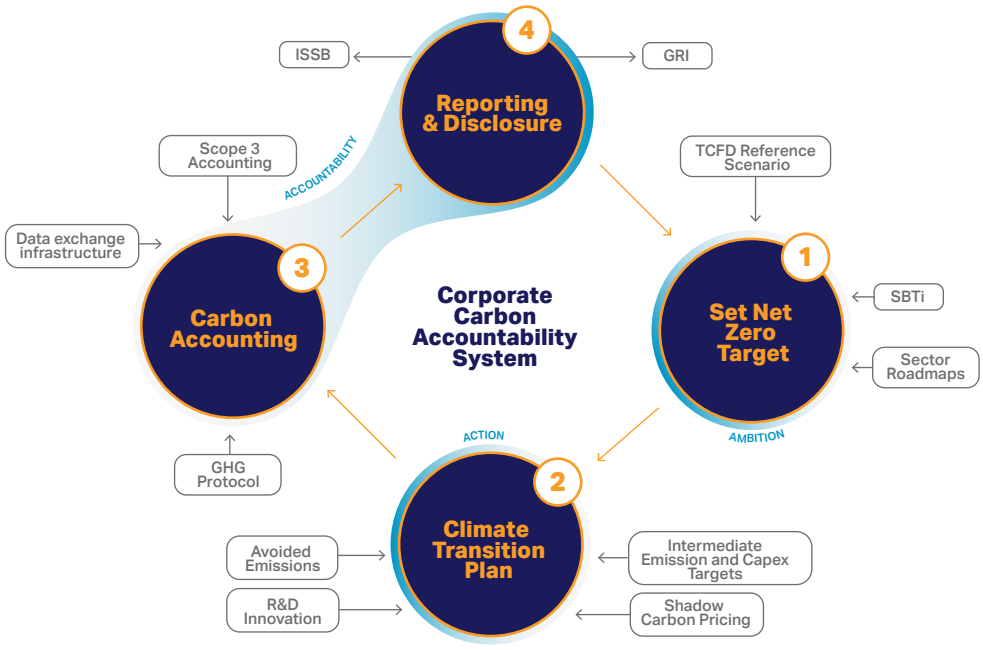
Phase 2 – Action: the net-zero target needs to be translated for implementation through a climate transition plan that breaks the (often long term) net zero target down into intermediate 2025 and 2030 emission and capex targets, including the R&D investment that will be deployed to deliver these targets (the new concept of avoided emissions can help drive innovation). Embedding carbon in every step of company decision-making is essential.

Phase 3 – Accounting: the next key step is to obtain accurate carbon accounting metrics over time through the Greenhouse Gas Protocol, complemented with Scope 3 accounting. The carbon accounting system is in need of a major upgrade to ensure that companies, investors and policy makers base their decisions on the best real-time information.

Phase 4 – Accountability: the external disclosure of the metrics is the final phase. This should be done through the global baseline reporting framework that the International Sustainability Standards Board (ISSB) is formulating. This will allow the financial markets to assess and compare the decarbonization progress of the company. Additional disclosure of the metrics through the Global Reporting Initiative (GRI) framework will allow the same ability for all other stakeholders to assess the company's decarbonization process.

Figure 1 below shows the process a company needs to put in place to deliver accountability for progress toward their climate targets.

Figure 1: Establishing Corporate Accountability for Action on Greenhouse Gas Emissions



THE CARBON ACCOUNTABILITY AND ACCOUNTING SYSTEM

Accurate and transparent accounting for greenhouse gas emissions (GHG) and their abatement is fundamental to steering businesses towards the 1.5°C trajectory and preventing backsliding on the commitments and pledges the private sector made in Glasgow at COP26. At present, however, the underlying carbon accounting system needs to mature – it is experiencing significant pressure, which is putting progress at risk.

The carbon accounting system faces multiple challenges. There are numerous stakeholders entering the system to meet specific needs and there is a need for further integration and alignment as it evolves to meet growing needs and demands.

The foundational de facto standard for GHG emissions that business uses for carbon accounting is the Greenhouse Gas Protocol. WBCSD and the World Resources Institute (WRI) created the first edition of the Greenhouse Gas Protocol in 2001 and run it through their long-standing partnership. As of 2016, 92% of Fortune 500 companies that disclosed their carbon accounting through CDP either used the Greenhouse Gas Protocol directly or went through a program based on the Greenhouse Gas Protocol to do so. Nevertheless, the protocol now requires a comprehensive upgrade in both standards and service provision capacity as demands and technologies have evolved.

At the same time, the historic lack of transparency in Scope 3 emissions has fed the current system with poor quality data. A mechanism to help companies and their suppliers collaborate more easily to exchange product-level Scope 3 emissions data is also required.

Against this backdrop, the demand for carbon accounting has skyrocketed in recent years as corporate climate commitments have increased exponentially. By mid-2022, one in three businesses in the Forbes 2000 list had set a net-zero target, up from one in five companies a year earlier. This has resulted in more organizations using an accounting system that is struggling to cope with the explosion in demand.

If left unchecked, an increasing number of businesses will overburden the system and they will have a poor user experience trying to navigate the carbon accounting system. At the same time, the need to support them on their carbon accounting journey will continue to grow rapidly.

The demands on the carbon accounting system are set to grow even further with regulatory action on the horizon. For example, the European Commission's Corporate Reporting Sustainability Directive (CSRD) will require over 50,000 companies to report their emissions by 2025 quadrupling the number of companies (12,000 companies) currently reporting, with draft standards in development by the European Financial Reporting Advisory Group (EFRAG). Meanwhile, the U.S. Securities and Exchange Commission proposed rule changes in March 2022 that would require companies to include certain climate-related disclosures in their annual reporting and disclose their GHG emissions. The International Sustainability Standards Board (ISSB) voted unanimously at its October 2022 meeting to require company Scope 3 GHG emissions disclosures in addition to Scopes 1 and 2, applying the current version of the Greenhouse Gas Protocol corporate standard.

To date, meeting these various and growing demands on the carbon accounting system has resulted in fragmentation. The business needs for GHG emissions calculation, target setting, disclosure and verification have resulted in multiple organizations, initiatives and start-ups being active in the carbon accounting system, such as inter alia The Climate Registry, Sustainability Accounting Standards Board, ISO and Science Based Targets initiative (SBTi). This has created a high transaction cost for businesses seeking to navigate and meet the various requirements for target-setting, disclosure and reporting.

Overall, a lack of alignment, coordination and harmonization among these organizations characterizes the current system, which risks becoming a major obstacle to "industrializing" the scale of company engagement in decarbonization. To move from a cottage industry to a globally standardized carbon accounting framework, the carbon accounting system needs to offer a more seamless user journey for businesses across the entire GHG calculation (for Scopes 1, 2 and 3), as well as the target-setting, disclosure and assurance process. It needs to provide specific guidance for users to apply consistently and harmonize data and reporting requirements along with governance between existing standards and processes.

High-quality verified primary data from the value chain must underpin the entire carbon accounting system. But both calculation consistency and the quality of underlying data are currently lacking. Meanwhile, increased scrutiny has driven the need for independent audits of emissions inventories and rising demand for professional services firms to deliver them at scale.

Consequently, and to upgrade the carbon accounting system and strengthen corporate climate accountability, WBCSD has engaged in extensive consultation with its member companies and other partners. Three priorities have been identified for the international climate community to consider at COP27:

- **Scale alignment of the carbon accountability system;**
- **Establish strong foundations for the carbon accounting system;**
- **Develop a Global Corporate Carbon Accounting Aggregation Mechanism.**

Undertaken together, these actions will significantly strengthen the entire accountability system to support businesses and allow the system to meet the demands that business and other stakeholders are placing on it today and will increasingly place on it in the years ahead.

ALIGNING THE CARBON ACCOUNTABILITY SYSTEM

This is not a frictionless process. Many of the organizations and initiatives in Figure 1 have different boards, data and reporting requirements. This makes the user journey complex for companies. To fix this, proactive coordination between multiple stakeholders, including target-setters such as the SBTi, carbon accounting bodies such as the GHG Protocol (GHG P), standard setters such as the International Organization for Standardization (ISO), disclosure bodies such as ISSB, GRI and CDP and assurance and ratings service providers is essential to ensure alignment on common foundations as the system is highly interdependent and value chains closely interlinked.

What is necessary is aligning the various elements and initiatives into a global Corporate Carbon Accountability System. Such an accountability system would help counter false claims of greenwashing and clarify decision-making regarding the rising number of climate litigation cases. Banks and other capital providers could also use it in the future to inform decision-making as it would provide independently verified information on those businesses making real progress on achieving their net-zero targets, thereby simultaneously lowering the cost of capital on offer.

HOW TO IMPLEMENT THE CHANGE REQUIRED

The international climate community, including business, regulators and standard setters, should invite a process to strengthen the overall global carbon accountability system in Figure 1. As part of this process, these stakeholders could consider establishing a Carbon Accountability Council in lieu of a formal global framework for carbon accounting. The Council would be tasked to increase coordination between different actors to align standards and their application, and work with policy-makers to ensure the adoption of consistent and robust standards for carbon accounting across geographies.

A Carbon Accountability Council would be an informal body with a common secretariat responsible for coordinating and harmonizing the different aspects and organizations active across the carbon accountability system, including target-setting, carbon accounting, reporting and disclosure organizations. It could draw from the various boards that currently provide oversight of different aspects of the carbon accounting system, with a strong focus on ensuring a seamless and harmonized user experience for businesses and other actors that require its combined services.

A Carbon Accountability Council could also provide coordinated engagement with regulators and policy-makers such as the International Sustainability Standards Board, the US Securities and Exchange Commission (SEC), European Financial Reporting Advisory Group (EFRAG) and others, to ensure alignment and harmonization in the application of carbon accounting standards, target-setting and reporting processes across jurisdictions into one global baseline (ISSB). This would help reduce fragmentation and the lack of harmonization in the system.

The United Nations Framework Convention on Climate Change (UNFCCC) High-Level Climate Champions and the COP28 Presidency could support the triggering of a structured dialogue with key stakeholders and users of the corporate carbon accountability system in the coming months, with the intent to upgrade the carbon accountability system by COP28. This could unlock a step change in user volume and accuracy for the second Global Stocktake period from 2023 to 2028.

To this end, the second Global Stocktake in 2028 could include both the number of countries that have made the ISSB reporting standard mandatory as well as the identification and reporting back of key performance indicators from such an improved carbon accounting (as Figure 1 indicates) system for companies. For example a target and actual number of businesses engaged in all four phases of carbon accounting, and the subsequent (verifiable) emissions mitigation contribution this will provide. This could offer a clear target and set of performance criteria for the overall carbon accounting system that the proposed Carbon Accountability Council could oversee.

ESTABLISH STRONG FOUNDATIONS FOR THE CARBON ACCOUNTING SYSTEM

To build an improved carbon accountability system for companies, establishing strong carbon accounting foundations such as the Greenhouse Gas Protocol are key. At present, however, carbon accounting standards do not meet the fast-growing needs of their users, there is too much flexibility in their application, and the quality of the data reported remains generally poor, with companies overwhelmed by the complexity of reporting relevant emissions data (in particular for Scope 3 reporting), especially to the granularity needed to be able to make more targeted decarbonization decisions across the supply chain.

The inconsistent use of methodologies to account for carbon emissions inhibits the current system. Existing standards leave room for interpretation and new topics are arising faster than standards can react, such as the integration of land-use or carbon removal initiatives. This inherent inconsistency creates a challenge for catalyzing a streamlined, scalable set of users to match the rising demand for carbon accounting.

Organizations also lack the primary data to accurately account for the emissions footprint of their upstream purchased goods and upstream or downstream services emissions (Scope 3), which in many sectors represent the majority of a company's GHG emissions. General purpose emission factor databases currently fill this gap, but they are often based on general estimates and not specific nor accurate enough to meet the detailed data needs for decision-making in companies. The equivalent would be conducting annual financial reporting using industry average figures for earnings before interest, taxes, depreciation, and amortization (EBITDA) and revenue. Acquiring primary data from the supply chain is difficult and what companies do provide is not comparable since suppliers calculate their emissions differently.

Meanwhile, increased scrutiny of private sector emissions has led to the need for independent audits of emission inventories. Yet professional services firms are also suffering from a shortage of personnel – both capacity and required knowledge levels – to conduct audits at the scale required.

HOW TO IMPLEMENT THE CHANGE REQUIRED

It is necessary to increase the "metabolic rate" of standards development and service delivery to create a comprehensive and up-to-date set of standards that reflect today's realities and requirements. Existing carbon accounting standards, such as the Greenhouse Gas Protocol, require support to transform their operating models and increase their internal capacity to become the de facto mechanism that delivers the scale of corporate carbon accounting needed in the next decade.

Noting the recent decision of the ISSB that confirms Scope 3 emissions disclosure requirements, there is also a pressing need to both resolve the lack of transparency in value chain emissions and improve the quality of primary data. This is a key requirement for the evolution of the carbon accounting system, given the significance of Scope 3 emissions in most corporate inventories (for most companies, 60% or more of their GHG emissions footprint is in their Scope 3 inventory). It is essential to further scale existing entities working to facilitate the exchange of Scope 3 emissions data and that address the lack of quality primary data, such as the WBCSD Partnership for Carbon Transparency (PACT), which is supported by

the We Mean Business Coalition, and encourage more companies to join. Current Scope 3 accounting shortfalls that need to be fixed for include:

- The inconsistency in existing GHG calculation methodologies for Scope 3 which leaves room for interpretation and error;
- The absence of standardized date exchange across value chains (and an emergence of diverging technology solutions and platforms;
- The growing number of initiatives seeking to resolve these challenges independently – resulting in fragmentation.

One additional and fast emerging area requiring clear guidance is avoided emissions. Avoided emissions are defined as the positive impact to society when comparing the GHG impact of a solution to an alternative reference scenario where the solution would not be used. This relates to how much an entity (a company, an organization) contributes to emissions reductions through its wider societal contribution, for example, by introducing new technologies or services that displace more carbon intensive ones. This wider contribution to society sits outside of and is separate from the emissions reduction achieved through the entity's specific Scope 1, 2 and 3 inventories. The objective is to support climate-aligned decision-making, innovation, and purpose definition.

To ensure clarity in emissions accounting and maintain a focus on emissions reductions in an entity's Scope 1, 2 and 3 inventories, WBCSD is developing guidance in close consultation with its members and experts to help accurately and separately account for this additional avoided emissions contribution to society. There is growing government interest in this area, as it is possible to create incentives to encourage entities to move away from their historical activities and offer a step-change in the technologies, products and services they offer to society to help lower emissions. The Ministry of Economy, Trade and Industry (METI) of Japan will be supporting WBSCD to develop these guidelines as part of its 2023 G7 Presidency.

Lastly, the international climate community must establish a network of supporting professional organizations to provide the necessary training, consulting and auditing capabilities to ensure that the emissions data companies report is accurate and credible.

DEVELOP A GLOBAL CORPORATE CARBON ACCOUNTING AGGREGATION MECHANISM

The evolution of the carbon accountability system should be aligned with the development of a global mechanism to aggregate corporate carbon accounting. There is a strong desire in the international business community to develop a widely recognized, commonly used, global accounting mechanism that links to the carbon accountability system set out in Figure 1 and enables society, policy-makers and investors to track aggregate corporate progress on the net-zero targets that governments have encouraged them to make. In time, such a mechanism could base itself on the mandatory ISSB disclosure information as this emerges. (This link to ISSB disclosure could also enable the Global Corporate Carbon Accounting Aggregation Mechanism to expand over time to enable society, policy makers and investors to also track related corporate progress on nature and social related corporate disclosure).

To be of maximum use, the design of such a mechanism should include the capacity to accurately assess how corporate progress is also contributing to relevant NDCs.

A Global Corporate Carbon Accounting Aggregation Mechanism could also inform future Global Stocktakes and could provide an accurate picture of the business contribution to NDCs and to achieving Paris Agreement goals.

At COP26, WBCSD introduced the concept of a corporate accounting aggregation mechanism (framed as corporate determined contributions) as part of the Business Manifesto for Climate Recovery. Since then, WBCSD has engaged its member companies, United Nations platforms and other organizations, academia and civil society in a series of multi-stakeholder dialogues to explore and evolve this idea further. WBCSD also leveraged the invitation it received to mobilize business input to Stockholm+50 via the Stockholm Action Agenda to further scope the concept and design of a corporate accounting aggregation framework for commitments on climate, which might also extend over time to aggregating corporate accounting and offering transparency on business progress on commitments to tackle nature loss, pollution and inequality.

HOW TO IMPLEMENT THE CHANGE REQUIRED

Organizations have taken the first steps in dialogue with WBCSD during 2022 to explore the development of a global carbon accounting aggregation mechanism; now it is necessary to accelerate progress. The dialogues hosted by WBCSD concluded with a strong signal from participants that the private sector and wider international climate community need to actively work to establish a delivery vehicle tasked with exploring the development of such a global corporate carbon accounting aggregation mechanism.

Consequently, at COP27, WBCSD is calling for a group of ambitious countries, leading businesses and other key stakeholders – for example, professional services (especially auditing) firms – to unite under a Carbon Accountability Council and work together to overcome the barriers preventing the establishment of such a carbon accounting aggregation mechanism that can present accurate, verifiable aggregated corporate progress and link these contributions to particular NDCs. As a leadership group of countries, businesses, auditors and other professional services firms, the Climate Integrity Alliance could demonstrate how to account for and link independently verified progress on corporate commitments to NDCs, providing both a global aggregation mechanism to do so and potential results. This could enable companies and governments to more easily work together to scale ambition and verifiable action before the 2028 Global Stocktake.

CONCLUSION

Evolving the carbon accounting system and strengthening corporate carbon accountability will establish a common, high-integrity practice for businesses to report, disclose and track their emissions, which will benefit the global economy and the international climate policy agenda. This is critical to unlock the climate action ambition loop between the public and private sectors. If policy-makers see the private sector taking ambitious and credible climate action, they gain confidence to advance climate policy, which in turn helps the private sector deliver and advance further action. But if climate action lacks integrity, the signal is lost and the ambition loop stalls.

Implementing the three priorities identified here to sharpen carbon related accountability can also help to take forward in a practical way many recommendations of the UN Secretary-General's High-Level Expert Group on the Net-Zero Emissions Commitments of Non-State Entities.

If COP27 can be the moment to trigger an effort to strengthen the corporate carbon accountability system, this will in time provide governments with the confidence to advance more progressive climate legislation and set more ambitious NDCs to drive significant progress on achieving the goals of the Paris Agreement and inform the state of play on climate action at future climate change conferences and the next Global Stocktake.

AMBITION

Climate ambition needs to be raised in four areas:

- Get more companies to set credible targets for emissions reductions;
- Raise ambition for emissions reductions in Nationally Determined Contributions (NDCs);
- Raising Climate Finance, for both mitigation and adaptation, especially for developing countries;
- Ensure any net zero transition activity also has a core ambition to be inclusive and equitable, particularly in the current economic context.

To help raise ambitions in each of these areas at scale and fast WBCSD and the member companies that participated in the consultative process for this report have identified five policy interventions involving practical business actions and closer government collaboration to help speed things up. These include:

1. Increase the number of companies who set credible targets for emissions reduction and who demonstrate accountability for their progress;
2. Raise NDC ambitions in partnership with business;
3. Advance partnerships with business to implement carbon pricing to help lower emissions and spur innovation, tackle inequality and close the fiscal gap;
4. Accelerate an equitable and inclusive net-zero transition in key business and industry sectors;
5. Unlock the potential for natural climate solutions to finance nature, helping to close the finance gap for developing countries in both mitigation and adaptation.

RAISING CLIMATE FINANCE, FOR BOTH MITIGATION AND ADAPTATION, ESPECIALLY FOR DEVELOPING COUNTRIES

The issue of money promised to developing countries by richer countries to tackle climate change and invest in adaptation will be a big topic at COP27.

In 2020, developed countries were still USD $17 billion short of their target to mobilize USD $100 billion climate finance annually for developing countries (as reported by the Organization for Economic Co-operation and Development (OECD)). Of that USD $83 billion, finance for adaptation accounted for just over USD $28 billion – or about a third of the total. More funding is therefore needed from developed countries to fulfill both the overall USD $100 billion target and the USD $40 billion sub target for adaptation finance by the extended 2025 deadline. The NGO Oxfam notes how much of the public money that has arrived is actually provided as debt, and others are saying USD $100bn even if it met will still not be enough. Constraints on fiscal headroom created by the impact of the COVID-19 pandemic combined with rising energy and food costs in many countries mean that plugging this financing gap will be challenging politically and economically for governments and will require support from the private sector.

Additionally, and given the rising costs of essential commodities, many in society are now facing a cost-of-living crisis, especially poorer and more vulnerable people in both developed and developing countries. Thus, there is an urgent need for the net-zero transition to also embed equity and justice as key principles. The shift to a net-zero economy is already creating economic and social impacts for communities and workers at both the local and global levels. Consequently, leading businesses, governments and other stakeholders must act intentionally and collaboratively to help mitigate negative social impacts arising from the response to tackling the climate emergency and ensure the realization of an inclusive and equitable transition to a net-zero world.

It is within this challenging political and economic context of climate finance that the COP27 Presidency has rightly called on governments and non-state actors, including the private sector, to shift their focus from creating more pledges to implementing more projects.

GET MORE COMPANIES TO SET CREDIBLE TARGETS FOR EMISSIONS REDUCTIONS

Dramatically increasing the number of companies who set credible targets for emissions reduction and who demonstrate accountability for their progress is a key ambition that must be achieved in the next five years.

From the business community, the current scale of climate ambition offers a mixed story.

The UNFCCC-supported High-Level Champions (HLC) connect the work of governments to the many voluntary initiatives of non-state actors, including business. They estimate that over 8,307 companies and 595 financial institutions have now joined the HLC Race to Zero Campaign, which encourages business to make climate commitments across different sectors and themes. The SBTi notes that as of November 2022 3,984 businesses and finance institutions are working with them to reduce their emissions in line with climate science, of which 1,902 have a science-based target and 1,480 have a net zero commitment (both near and long term, validated by SBTi). The CDP website notes that in 2022 over 18,700 companies disclosed their emissions through CDP and over 680 investors requested "thousands" of companies to disclose to them through CDP. In addition, a recent paper by Harvard University on Corporate Greenhouse Gas Disclosures found that eighty-one percent of S&P 500 companies voluntarily reported Scope 1 and Scope 2 emissions in corporate social responsibility reports for the year 2020.

Whilst this represents significant progress, the scale and, importantly, the depth of company engagement on climate engagement is not yet where it needs to be. For society as a whole to reach net-zero, most companies will need to decarbonize by a minimum of 90-95% across their value chains, according to SBTi. As discussed in the earlier Accountability section of this report, the user journey to engage companies into making commitments – and then to properly account for their progress – is complex. There are many different routes to take and variations in commitment to make. One obvious area lies with Scope 3 emissions. The CDP website notes that "280+" of their supply chain member companies asked their suppliers to disclose through CDP. It is unclear how accurate this data is.

In February 2022 the New Climate Institute and Climate Watch released a report that assessed the climate strategies of 25 major companies who represented about 5% of the world's GHG emissions based on self-reported data. They found that while all the companies had pledged some form of zero emission, net zero or carbon-neutrality target, just 13 of the 25 provided specific details about their plans to reduce emissions to achieve net zero and just 3 were committed to reducing their "full value chain emissions" by more than 90% by their respective target dates. The Race to Zero Campaign of the HLCs and other voluntary corporate commitment initiatives such as SBTi and the Glasgow Financial Alliance for Net Zero have also come under some scrutiny regarding the integrity of their commitments.

To develop stronger and clearer standards for net-zero emissions pledges by non-state entities — including for businesses — and to speed up their implementation, United Nations (UN) Secretary-General António Guterres announced in March 2022 a High-Level Expert Group on the Net-Zero Emissions Commitments of Non-State Entities, which includes business. Chaired by Catherine McKenna, Canada's former Minister of Environment and Climate Change, the group will provide their report at COP27. Their recommendations address four key areas recommendations for higher ambition and environmental integrity:

- Current standards and definitions for setting net-zero targets;
- Credibility criteria used to assess the objectives, measurement and reporting of net zero pledges;
- Processes for verification and accounting of progress towards net-zero commitments and reported decarbonization plans; and
- A roadmap to translate standards and criteria into international and national level regulations.

This is consistent with the four-phase approach outlined earlier in the Corporate Carbon Accountability System in Figure 1, and it is by helping as many companies as possible to take that full journey over the next five years, that a high ambition for engaging companies in taking and being accountable for climate commitments can be reached.

HOW TO IMPLEMENT THE CHANGE REQUIRED

Ultimately, a common mandatory requirement to report will drive the scale of company ambition required. This is why this report calls for clear and vocal business support for the International Sustainability Standards Board prototype under development to become the mandatory global baseline for reporting.

To prepare for the arrival of mandatory reporting, WBCSD is already building carbon accountability with its members directly, who represent over 220 global companies. A membership criteria has been introduced including for climate ambition in line with the scientific advice for short and long term targets, and WBCSD's projects and activities are helping all member companies engage on that journey over the next five years. Significant progress has already been made and will be shared later in 2023 to complement the COP28 Global Stocktake process.

Consequently, the potential to scale and harmonize carbon pricing efforts seems to be growing. Importantly, current economic circumstances that require governments to raise fiscal revenue, promote innovation while also swiftly lowering GHG emissions may actually hold strong possibilities for policy innovation to create a breakthrough on carbon pricing initiatives.

In addition, WBCSD is expanding its highly successful company education program, which engages large companies in bespoke educational skills and capacity development to undertake the sustainability transformation, including enabling executives and functional leaders across the company to become trained and accountable for making and delivering on climate commitments.

WBCSD THE CLIMATE DRIVE

The WBCSD "Safe Operating Space 1.5" climate initiative (SOS 1.5), is collaborating with many WBCSD members and expert partners to build The Climate Drive. This is a one-stop digital solution for all large businesses to grow their technical climate capabilities at scale and to accelerate the implementation of climate action across all sectors, including both heavy and light industry. At COP27, The Climate Drive's first technology build will be showcased. This includes the "Progress Review" for companies to assess net-zero gaps and opportunities, the "Net Zero Guidebook" detailing exactly how to execute the net-zero journey and the "Action Library" making specific technical decarbonization solutions accessible to all. These services in The Climate Drive are all designed to help the company take an easier 4-step journey through the Corporate Carbon Accountability System as set out in Figure 1.

RAISE NDC AMBITIONS IN PARTNERSHIP WITH BUSINESS

Since the COP26 Glasgow Climate Pact, where Parties agreed to revisit their NDCs and update them prior to the start of COP27, just 24 of the 193 Parties have submitted new or updated emissions reduction targets. The 2022 NDC Synthesis Report outlines that those combined climate pledges put the world on track for global warming of 2.5°C by the end of the century. WRI's State of Nationally Determined Contributions: 2022 compares the estimated emissions reductions that these pledges would lead to – just 7% before 2030 – to the 43% of reductions the IPCC warns is required and concludes that "six times as much progress is needed to keep the 1.5°C temperature goal within reach." Ratcheting up government ambition therefore remains an urgent priority.

There are groups of countries, such as those in the Carbon Neutrality Forum, that have agreed to develop ambitious national climate strategies to meet the long-term objectives of the Paris Agreement. There are also official global initiatives like the United Nations Development Program (UNDP) and its Climate Promise which are designed to help developing countries create stronger NDCs. Through the Climate Promise, UNDP works closely with over 120 governments and in collaboration with over 35 partner organizations to scale-up support to solidify NDC ambitions and convert targets into action.

The Global Corporate Carbon Accounting Aggregation Mechanism proposed in the Accountability section will be the best way to link progress in corporate decarbonization with raising ambition in NDCs, given that for 75% or more of national economies GHG emissions originate from business.

The WBCSD Global Network is an alliance of more than 60 CEO-led business organizations worldwide. The Global Network, encompassing some 6.500 companies, is united by a shared commitment to provide business leadership for sustainable development in their respective countries and regions. Several in this network have expressed interest to help their governments how to raise NDC ambitions through practical partnerships that can also unlock value for business. This could involve providing accurate data on the risks to economic assets and value creation activity in the economy and collaboration to jointly devise partnerships, investment plans and enabling-policy interventions.

Engaging in such structured government and business partnership to raise the bar for national climate action – and NDC ambition as a result – has a proven track record in speeding up and scaling positive ambition loops, as the Leadership Group for Industry Transition has shown in Sweden and India, the Danish Government Climate Partnership has demonstrated in Denmark and the Korean New Deal has shown with its Green Deal in South Korea. Meanwhile, commentators have pointed to the crucial role of leading business support to aid the progression and political delivery of the 2022 US Inflation Reduction Act.

HOW TO IMPLEMENT THE CHANGE REQUIRED

To ensure scale and what one WBCSD member termed "magnitudinal as well as directional alignment" on such an effort, collaboration between a group of WBCSD's Global Network partners, the Climate Neutrality Forum and /or UNDP's Climate Promise, and others from the finance and innovation community with a club of interested governments could provide a potential vehicle to help raise multiple NDC ambitions over the next few years. This can also be a good example of how the Global Corporate Carbon Accounting Aggregation Mechanism can work, as it will show how business action in a country can contribute to raising the ambition of the NDC.

A concept for such public-private collaboration to help governments and societies raise their NDC ambition levels could be discussed among WBCSD Global Network Partners and other interested parties in time for presentation at COP28 in Dubai.

ADVANCE PARTNERSHIPS WITH BUSINESS TO IMPLEMENT CARBON PRICING

WBCSD member companies have also unanimously noted the continued importance for policy-makers to scale ambitious and harmonized carbon pricing initiatives.

According to the World Bank's State and Trends of Carbon Pricing 2022, more ambitious carbon prices can help close the gap between pledges and policy to "keep 1.5°C alive". Most businesses consulted during this process agreed that the single most effective policy instrument that governments could implement to help redirect investments to the net-zero transition would be an effective price on carbon.

As governments look to increase revenues to reduce national debt levels, which are at an all-time high following the COVID-19 pandemic according to the International Monetary Fund (IMF), as well as deliver on net-zero commitments, they are looking for ways to do so that do not curtail productivity or place too much of a tax burden on workers or businesses. A transitionary carbon price could provide such an opportunity. Global carbon pricing revenue increased by almost 60% in the past year, to around USD $84 billion.

There is also the equity perspective of carbon pricing instruments to consider. The Carbon Pricing Leadership Coalition for example is proposing an approach for the US where every family could receive a USD $3,456 annual dividend. This, in turn, could provide additional consumer firepower to purchase net-zero products and services.

The report of the High-Level Commission on Carbon Prices identifies a USD $50-100/t CO_2e price (the "carbon price corridor") as the range needed by 2030 to keep the global temperature rise to below 2°C. However, the World Bank estimates that a direct carbon price in or above this corridor covers less than 4% of global emissions in 2022. There is therefore great potential for growth in carbon pricing in terms of coverage and price setting.

Unsurprisingly, however, adopting carbon prices – especially with internationally similar dimensions - remains politically challenging, particularly amid rising inflation and energy prices. From a business perspective, expanding carbon pricing mechanisms through policy harmonization is critical, however, so that large companies can more efficiently manage their carbon pricing across jurisdictions.

The World Bank notes that several countries and regions are now moving to adopt international climate clubs, including the proposed United States-EU Carbon-Based Sectoral Arrangement on Steel and Aluminum Trade. The International Maritime Organization (IMO) is considering placing a price on emissions from international shipping activities; the International Monetary Fund (IMF) and World Trade Organization (WTO) are advocating for an international carbon pricing floor. In addition, the European Union has a legislative process underway to introduce a Carbon Border Adjustment Mechanism (CBAM) with a transitional period potentially beginning as soon as January 2023. Taken together, these kinds of approaches can help fortify domestic support; prevent carbon leakage; promote common and more accurate accounting of Scope 3 emissions; and encourage mitigation beyond national borders – many of the aspects that leading businesses seek in the internationalization and harmonization of carbon pricing initiatives.

In conclusion, the potential to scale and harmonize carbon pricing efforts seems to be growing, and current economic circumstances that require governments to raise fiscal revenue, promote innovation while also swiftly lowering GHG emissions may actually hold strong possibilities for policy innovation to raise climate ambition and create a breakthrough on carbon pricing.

HOW TO IMPLEMENT THE CHANGE REQUIRED

Similar to the initiative on NDC ambition building, organizations with deep expertise in carbon pricing, like the World Bank and OECD, could advance work with a leading group of countries and companies willing to engage in carbon price initiative design discussions. One option would be to draw upon a small but growing group of leading businesses with experience in implementing internal carbon pricing systems.

This collaboration between business, government and leading stakeholders could seek to reach a tipping point on carbon pricing implementation across a critical mass of countries (a leading group of governments with high-ambition NDCs, for example) and would offer a practical policy implementation contribution to raising ambition in the next five years.

ACCELERATE AN EQUITABLE AND INCLUSIVE NET-ZERO TRANSITION IN KEY BUSINESS AND INDUSTRY SECTORS

WBCSD's Vision 2050 is to have 9+ billion people living well, within planetary boundaries, by mid-century. It is possible to build a world that respects dignity and rights, meets basic needs and ensures equal opportunities are available for all.

WBCSD and its members view inequality as a product of systems – which can change. That systemic risk is now urgent and is threatening individual companies, communities and entire economies and societies. This, in turn, is contributing to cascading consequences with dire implications: eroding social cohesion, diminishing trust in key institutions, fueling conflict and undermining society's collective capacity to tackle complex challenges collectively.

An inclusive and equitable transition needs to put respect for human rights at its center, providing skills and opportunities for young people and workers and quality jobs in the locations where they are needed. It also involves consumers who need to have access to reliable information and the required products and services to engage in the transition. Finally, it is necessary to take into consideration the needs and rights of communities, including Indigenous Peoples most affected by projects and investments. Investments in these systems must become people-centric and deliver on climate and nature benefits.

This is why WBCSD has convened the Business Commission to Tackle Inequality (BCTI). This cross-sectoral, multi-stakeholder coalition of more than 60 organizations and their leaders has the mission to mobilize the private sector to tackle inequality and generate shared prosperity for all. Finding ways to ensure the delivery of an inclusive transition to a net-zero economy has been central to the BCTI's deliberations and will feature prominently in the agenda for business action to tackle inequality that the group will launch in 2023.

HOW TO IMPLEMENT THE CHANGE REQUIRED

As part of the BCTI, WBCSD is advancing business understanding and the application of an equitable net-zero transition in the context of some specific value chains. In collaboration with the Council for Inclusive Capitalism and PwC, in 2022, WBCSD has convened working groups to explore and elevate emerging best practice when it comes to realizing an equitable net-zero transition in the specific contexts of the food and agriculture and energy value chains. This work has leveraged the Council for Inclusive Capitalism's Just Energy Transition Framework and included in-depth discussions on the role of business in supporting an equitable transition to a net-zero economy that ensures the respect of human rights, that workers have the skills they need to prosper, the creation of jobs when and where they are needed, that consumers have reliable access to essential products and services, and the building-up of community resilience.

As a result, this practice could be replicated to develop and implement best practice equitable net-zero transition frameworks to raise such ambitions in other value chains and in multiple NDCs. It could account for different national circumstances, while at the same time bring together organizations such as Business for Inclusive Growth (B4IG), CSR Europe and the We Mean Business Coalition (WMBC) to drive convergence and alignment on the role of business in supporting equitable and inclusive net-zero transition frameworks and incorporating leading business voices on this agenda into key intergovernmental discussions.

UNLOCK THE POTENTIAL FOR NATURAL CLIMATE SOLUTIONS TO FINANCE NATURE

There is no net zero without nature positive. Climate change is a main driver of nature loss along with human-driven ecosystem conversion. In turn, habitat change is a source of emissions.

High-quality Natural Climate Solutions (NCS) facilitate emissions reductions and the removal of CO_2 through actions that protect, sustainably manage and restore nature. NCS could provide a significant contribution to carbon removal efforts as it has the potential to remove over 100 gigatons of the projected 810 gigatons of carbon dioxide removals required by the end of the century to stay on course for a 1.5°C pathway at a lower cost than any other form of removal.

Businesses can play a key role by purchasing and retiring high-quality voluntary NCS reduction and removal credits during the transition to net zero to counterbalance unabated value chain emissions. The use of these credits should not happen in lieu of or to delay the emissions reductions necessary to meet long-term science-based targets for Scope 1, 2 and 3 emissions, but they may be necessary to help a company keep on track for net zero by 2030 if after all efforts are made across Scope 1, 2 and 3 emissions, key new technologies are not yet available at scale to close the remaining emissions gap. In addition, businesses can also finance NCS as in-value-chain mitigation measures. This is particularly relevant for businesses with value chains that include emissions generated by agriculture, forestry or other land-use activities. These sectors can and should also invest in NCS in their own value chains to address their own land-based GHG emissions.

The value of the voluntary carbon market quadrupled in 2021 compared to 2020, from USD $520 million to nearly USD $2 billion. The total traded volume of credits in 2021 reached 500 million. Credits in the forestry and land-use sector (where the majority of NCS activities take place) made up 67% of the value (USD $1.982 billion) and 46% of the volume (227.7 million tons of CO_2 equivalent). While this growth is cause for celebration, this is far short of the recognized target to reach 1 gigaton of CO_2e of high-quality NCS credits from emissions reductions and removals by 2025.

Limited investment (only 8% of public finance targeting climate action is committed to nature-related investments), insufficient integrity to guide the highest possible quality of investment, a fitful approach to market development and policy disagreements have hindered progress, however. Solutions to these problems are now developing rapidly, particularly with large-scale public-private coalitions like the Lowering Emissions by Accelerating Forest Finance (LEAF) movement and the Forest Investor Club established at COP26. There is also rapid progress on the taxonomy of what are high-integrity NCS investments, the establishment of high-quality demand and supply criteria in the voluntary markets, a new Voluntary Carbon Markets Integrity Initiative and technical guidance from the GHG Protocol on land sector and carbon removals.

HOW TO IMPLEMENT THE CHANGE REQUIRED

It is necessary to implement policy shifts, large-scale public and private funding commitments and smooth market development in Natural Climate Solutions (NCS) in order to accelerate momentum and to scale-up voluntary action among businesses. WBCSD undertakes and oversees a growing body of work in this agenda, including with the Natural Climate Solutions Alliance (NCSA), the Nature Action Imperative, the Agriculture and Food Systems pathway and through support to the Forest Financial Flows Initiative of the Forest Investor Club.

As a result, and together with its members and partners who engage on these initiatives, WBCSD proposes to work with governments to (i) align climate policy with the Global Biodiversity Framework; (ii) repurpose environmentally harmful agricultural subsidies to encourage regenerative agricultural practices (which will reduce GHG emissions from land and restore carbon sinks); and (iii) ensure the channeling of a quantum change in additional private sector finance to high-quality NCS investments by 2025, especially in developing countries, to help with both the delivery of the Global Biodiversity Framework and the Paris Agreement on Climate Change.

Business recognizes this opportunity to channel climate investment into nature. Alongside governments, WBCSD will encourage businesses to focus their NCS investment interests into high-quality, high integrity NCS, which address effectively the permanence, additionality leakage, double-counting, robust quantification and verification of the climate mitigation activities implemented. These investments, which may be offered through more expensive credits, would go above and beyond simple climate credit delivery, resulting also in a gain for biodiversity and ecosystem integrity, and provide substantive social and economic benefits for local communities and Indigenous Peoples and climate risk protection by improving the resiliency and adaptive capacity of landscapes. There is also potential for this high integrity NCS market to help close the climate and nature financing gap for developing countries.

As part of the NCSA, WBCSD supports the growth of the demand for high-quality voluntary NCS carbon credits. In 2022, the NCS Alliance focused on highlighting NCS Leaders and NCS Lighthouses to create trust in prospective investors. In collaboration with ERM, it has developed the Natural Climate Solutions and the Voluntary Carbon Market guide for C-suite executives.

In its next phase of development, the NCSA will build on its knowledge of the nature and social outcomes associated with NCS credits (supported by its vast and diverse network) and will aim to create the conditions for the valuing of nature and social outcomes and for their trading separately from carbon credits. The alliance will operationalize this by firmly placing nature and social requirements in the NCS carbon credits value chain, starting with promoting their integration in procurement practices, including investment requirements in standards for project developers and exploring opportunities to expand the market from its current exclusive focus on carbon credits to include the trading of biodiversity and social outcomes. This will form a major area of work for 2023 in order to raise the ambition and impact on offer of natural climate solutions to business.

ACTION

The strengthening of business accountability and ambition to deliver on the goals of the Paris Agreement is a necessity. But strong, decisive action across all sectors and systems within the next seven years before 2030 is also required, if society is to remain on course to limit global warming to 1.5°C by 2050. That means a step change in action from now.

There are several major portfolio initiatives stimulated by Glasgow COP26 and before that are underway, which engage business to mobilize and deliver on the scale of action required this decade. Notably, the United Nations High-Level Climate Champions (HLC) launched the 2030 Breakthroughs to provide clarity on the path to halving emissions by 2030 across the global economy. The champions cover over 30 sectors that make up the global economy; collectively, the 2030 Breakthroughs articulate what key actors must do – and by when – to deliver the systems change needed to achieve a resilient, zero-carbon world by 2050.

If one-fifth of key actors in each of these 30 sectors commit to playing their part to transform their sector consistent with the Climate Action Pathways, it will generate sufficient momentum among a critical mass of stakeholders, enabling them to break away from the business-as-usual path and together deliver breakthrough outcomes at pace. Achieving these tipping points requires cross-collaboration between business and governments, new partnerships and initiatives and, of course, the financing to catalyze them.

Against this backdrop, WBCSD led a consultative process with its member companies to explore what more could be done, and specifically where to focus business action efforts over the next five years for the biggest "climate impact" return on such a business effort investment. These dialogues led to the identification of six interlinked thematic areas where participants felt that a concentration of specific business actions within each area could help trigger the systems change that the HLC has been seeking to promote.

These six areas are:

1. Energy systems
2. Industry systems
3. Built environment systems
4. Mobility and transport systems
5. Food and agriculture systems
6. Capital market systems

The overriding message is to act now on the actions identified for impact in the next five years.[2]

1. Energy systems

According to recent analysis from the International Energy Agency (IEA), the energy system overall (including fuel combustion for buildings, industry, transport and electricity and heat generation) is responsible for three-quarters of global GHG emissions.

The Russian invasion of Ukraine and the global energy crisis that it has triggered are a stark reminder of the need for the clean energy transition - to promote both energy resilience and decarbonized energy sources. European natural gas prices have increased by 60% since Russia began its invasion in February 2022 and brent crude oil is consistently trading near USD $120 per barrel. The crisis risks abandoning one of the Glasgow Climate Pact's most concrete tenets: a global agreement to phase down coal use, with countries such as Germany and the Netherlands turning to coal-fired power stations in the short term to counter oil supply disruptions.

The world must move rapidly to a system where unabated fossil fuels play a much smaller role in the global economy and energy mix to meet the objectives of the Paris Agreement. The IEA's Net Zero by 2050 report suggests that renewables should meet two-thirds of global energy supplies and nearly 90% of electricity generation by 2050. The recent Navigating Energy Transitions: Mapping the road to 1.5°C report from the International Institute for Sustainable Development (IISD) and the Net Zero by 2050: A Roadmap for the Global Energy Sector report from the IEA both outline that developing new oil and gas fields is "incompatible" with the 1.5°C target.

The issue of energy subsidy reform is also seen as a key policy area - the IEA estimates that subsidies to fossil fuels, which were consumed directly by end-users or consumed as inputs to electricity generation, amounted to USD $440 billion in 2021, a large increase from 2020 as energy prices and use rebounded. With sharply rising prices, the scale of subsidies to fossil fuels in 2022 will see a significant rise once again.

In addition, it is also necessary to address the issue of energy access, given that the IEA estimates that 770 million people currently do not have access to electricity. The energy transition between now and 2030 must therefore adopt just transition principles to improve access to energy.

In terms of two additional high-impact areas of global business focus in the next five years, however, two areas were identified:

- **Help scale renewable energy investment even faster, especially in emerging and developing countries.** The IEA's Net Zero by 2050 report found that to reach net-zero emissions by 2050, low-carbon energy investment needs to triple, with renewable energy investments overtaking coal by 2026 and oil and gas by 2030. The pace of renewable energy scale-up required is huge. The IEA estimates that 630 GW of Solar PV and 390 GW of wind energy is required by 2030, four times the record level of what was installed in 2020. For Solar PV this is equivalent to installing the world's current largest solar park roughly every day to 2030.

- **Develop a transition pathway initiative with National Oil Companies (NOCs).** While there are many promising clean energy transition initiatives underway involving many sectors, fuels and technologies, a successful global energy system transition is still contingent on the net-zero transformation of the oil and gas sector. NOCs in particular play a crucial role in driving industrial activity worldwide, especially in emerging and developing economies. The delivery of a net-zero transformation in NOCs is crucial to a successful clean energy transition. Yet, at present, many NOCs – with some notable exceptions – do not have viable transition pathways and clear investment plans and often lack the human capacity capabilities to deliver on the transformation required to achieve net-zero transitions. This would be a high-impact energy system transition to focus on.

HOW TO SCALE RENEWABLE ENERGY IN DEVELOPING COUNTRIES

The core issue to focus on is closing the cost of capital gap for renewables in emerging and developing markets, with governments and development banks and development finance institutions helping to de-risk projects.

A complementary COP28-related initiative to scale green energy investment across nations and the involving business could stimulate the scale of merchant banking the world needs to deliver the clean energy transition, especially in developing countries. The initiative could draw on both the acumen of sovereign fund investment shown by the United Arab Emirates and other Gulf country neighbors, complemented by other institutional investor network investments and other large corporate balance sheets to help bolster existing financing facilities with strong track records in de-risking green energy and related infrastructure investment, for example PIDG and Proparco.

A network of domestic and international banks with solid track records in clean energy investment in emerging markets and developing economies could engage in such an initiative via the Glasgow Financial Alliance for Net Zero (GFANZ), United Nations Environment Programme Finance Initiative (UNEP FI), Green Finance Institute (GFI), or other leading green finance networks. Meanwhile, institutional investor networks like the Institutional Investor Round Table (IIR) and the Net Zero Asset Owners Alliance could also join, as could multinational companies that use their balance sheets to invest directly into renewable energy development in emerging economies, such as Ingka Group.

In addition, such an initiative on scaling renewables must also work with business and government to address the key barrier of availability of critical material and productive capacity in global supply chains.

This initiative could focus thematically on scaling investment in renewable energies in the Middle East and North Africa (MENA) and sub-Saharan Africa regions. It could work with existing initiatives already accelerating uptake, for example the Global Energy Alliance for People and Planet, the Global Offshore Wind Alliance, and the WBCSD's REscale initiative, which has a particular focus on increasing understanding and uptake of corporate renewable power purchase agreements (PPAs) globally.

WBCSD'S RESCALE PROJECT

WBCSD's REscale project brings together leading companies representing the full renewable energy value chain to accelerate the deployment of renewables and the transition to a low-carbon electricity system. Since its launch in 2015, REscale has played a key role in driving the global corporate renewable sourcing movement, with a particular focus on increasing understanding and uptake of corporate renewable power purchase agreements (PPAs) globally. They unlock an alternative revenue stream and hence financing options for project developers and provide clean, reliable and competitive power for energy users across all sectors.

When WBCSD started its work in 2015, companies had procured just 10 GW of renewable power through PPAs, compared with an impressive 110 GW by the end of 2021, over 50% of which has been procured by WBCSD member companies.[3] REscale has spearheaded this growth with dedicated awareness-raising, capacity-building and advocacy activities worldwide, including creating national and regional corporate renewable procurement initiatives in Europe, India, Brazil and Argentina. It has held over 500 matchmaking meetings between energy buyers and suppliers and developed guidance on 15 topics that is used in 90 countries around the world. The potential for growth in corporate sourcing of renewable energy is still significant. WBCSD will continue to support private sector leadership in the deployment of renewable energy.

HOW TO DEVELOP A TRANSITION PATHWAY INITIATIVE FOR NATIONAL OIL COMPANIES

A successful global energy system transition is still contingent on the net-zero transformation of the oil and gas sector. National oil companies (NOCs) in particular play a crucial role in driving industrial activity worldwide, especially in emerging and developing economies and collectively.

IHS Markit estimates that state-owned oil and gas companies hold over 60% of oil and gas reserves globally, supply 50% of production, and account for 40% of investment overall. They manage multi-billion-dollar portfolios of public assets, contribute to large shares of government revenues, and employ huge local workforces, in some cases, accounting for over 1% of national employment. Industry analysis from Wood Mackenzie has shown that NOCs account for nearly half of the top 20 upstream corporate emitters (Scope 1 and 2) in 2021, although the share could be greater, as the majority of NOCs do not currently report their emissions.

The global transition away from fossil fuel dependency has led many NOCs to turn to renewable energy investments. As NOCs are well integrated within existing national infrastructure and systems that supply fuel and power to citizens and businesses, this positions them as potential leaders in their nations' clean energy transitions. However, despite their influence, they often lack the capacity and competencies required to navigate and deliver on the fast-moving sustainability agenda.

The inevitable changes required for a global clean energy transition, including a migration from fossil fuel dependency, mean that NOCs will need to develop transformation strategies for a sustainable future, with clear transition roadmaps and investment plans to achieve them. To make this a reality, a NOC Transition Pathway and capacity-building initiative could be launched with a five-year roadmap, starting at COP28 in Dubai in November 2023.

This initiative would examine the strategic sovereign risks to address as part of the clean energy transition, especially in light of the growing prioritization of energy security in the current geopolitical landscape, to develop transition pathways and related investment plans for NOCs in line with high-integrity net-zero ambitions. The initiative can simultaneously invest in net-zero transition competency building within NOCs to strengthen the human capacity and capabilities required to implement the transition plans. To establish credible corporate accountability for action with each NOC, the 4-phase approach set out in Figure 1 can offer a pathway to accompany each enterprise on through the Corporate Carbon Accountability System, and to share best practices and common challenges across the group as a community.

WBCSD has undertaken some preliminary discussions with existing company members and partners (for example relevant industry associations with NOC membership) to explore appetite for such an industry effort and has received high interest. WBCSD can offer to undertake such an initiative with other partners, which would be designed to also fit with the strategy and vision of the COP28 Presidency.

With the launch of the NOC Transition Pathway initiative at or ahead of COP28, a five-year implementation roadmap running to the 2028 Global Stocktake could then be established. This holds the potential to be a hugely impactful contribution to keeping the world on track by 2030 for net zero by 2050.

2. Industry systems

Any successful energy transition must dovetail with the successful transition of heavy and light industrial sectors. Without the transformation of heavy industry in particular (aluminum, aviation, cement, chemicals, shipping, steel), the goals of the Paris Agreement will be out of reach. Efforts to develop detailed net-zero roadmaps for these sectors (such as through the Mission Possible Partnership and other related initiatives) are making great progress. The Mission Possible Partnership is an alliance of climate leaders focused on supercharging efforts to decarbonize some of the world's highest-emitting industries in the next 10 years, has identified concrete, steel, aluminum and chemicals—as well as the ships, planes and trucks that move their outputs – as seven sectors responsible for 30% of global GHG emissions. Projections show that share will grow. Other industry sector coalitions of the willing have also made significant progress since COP26 across various sectors. The work of the Marrakech Partnership for Global Climate Action and the Race To Zero campaign led by the HLC across multiple industry sub-sectors has unquestionably driven business ambition. However, reaching the sectoral tipping points identified in the 2030 Breakthroughs still requires significant progress.

Complementary initiatives to stimulate demand and investment to scale the clean fuels and other technologies required at scale by 2030 for industry transition (such as the First Movers Coalition) are also proving to be vital to enable the heavy industry transition. In addition, interest is now also growing in initiatives that can help governments develop supply-side policies to encourage companies to provide more products and services from today that can help society accelerate wider emissions reductions, such as through promoting robust Avoided Emissions Guidance supported by related financial incentives. This is an area the Government of Japan through its Ministry for Economy, Trade and Industry (METI) will focus on, for example, in its 2023 G7 Presidency.

In terms of a core focus for global business action now on the industry transition, for impact in the next five years, two areas were identified:

- **Engage more leading companies with the roadmaps that industry initiatives**, such as the Mission Possible Partnership and others, are producing, to turn these into specific industry and company transition plans backed by investments (in line with the four phases set out in Figure 1), so business can start implementation as quickly as possible.
- **Accelerate complementary demand and supply side initiatives for business** (First Movers Coalition, Avoided Emissions Guidance and related incentives) and scale their partnerships with governments.

HOW TO IMPLEMENT THE CHANGE REQUIRED

The technical collaboration between the Mission Possible Partnership and the Science Based Targets initiative to drive demand and accelerate technological and new fuel development offers a great set of interrelated initiatives for business. The collaboration provides companies in heavy industry sectors, such as aluminum, concrete, chemicals, steel, aviation, shipping and trucking, with a simplified roadmap to scale climate actions and accelerate decarbonization in line with 1.5°C. They have achieved excellent progress, notably the development of highly detailed sector roadmaps.

The next step should be to now engage leading companies from each sector more closely to deliver on these detailed roadmaps and targets under development and help them establish corporate accountability for their commitment to act, following the 4 Phases as Figure 1 in this report illustrates. This should help engage capital markets, policy makers and wider sets of stakeholders in their transition efforts. It will also trigger further interest from development and concessional finance institutions, governments, other businesses and philanthropy etc., to help those companies and industry sector associations in developing or emerging economies – who will need more support to build the specific transition, investment plans and internal skills and competency development required to effectively decarbonize their operations and supply chains.

In addition, it is necessary to invest in and support complementary demand-driver initiatives like the First Movers Coalition which was launched by the US Government and the World Economic Forum ahead of COP26, and also supply-side initiatives that can be catalyzed through incentivizing Avoided Emissions, as the Government of Japan's Ministry of Economy Trade and Industry seek to do in collaboration with WBCSD guidance for their 2023 G7 Presidency. The influence of these complementary public-private initiatives to help speed up and scale the industry transition will grow if more government partners can be attracted to them. Tapping into the interests of the Indian G20 2023 Presidency for example offers good opportunity for advancing both these important initiatives.

3. Built environment systems

By 2030, the built environment as a sector should halve its emissions relative to 2022. 100 per cent of new buildings must be net-zero carbon in operation, with widespread energy efficiency retrofit of existing assets well underway (considering resilience to climate extremes), and embodied carbon must be reduced by at least 40 per cent, with leading projects achieving at least 50 per cent reductions in embodied carbon.

In terms of a core focus for immediate global business action now, for impact in the next five years, two areas were identified:

- **Develop national and sub-national decarbonization and resilience roadmaps to address energy performance and whole lifecycle emissions for new and old buildings**, and promote multi-stakeholder collaboration between cities, regions, businesses, and civil society actors to accelerate action. These outputs should be integrated in the next round of NDC and (Long Term Plans) LTP updates. Countries could join global initiatives driving international collaboration, such as the Buildings Breakthrough led by France and Morocco, the Global Alliance for Buildings and Construction (GlobalABC), and the Net Zero Carbon Buildings Accelerator.
- **Place whole life carbon (WLC) at the center of decarbonization strategies and decisions.** Set WLC thresholds, clear milestones, and quantifiable targets and indicators, and apply them to the development of policies and regulations. Establish data tracking standards and systems to measure, report and access information regarding whole-life carbon (operational and embodied) emissions of buildings.

HOW TO IMPLEMENT THE CHANGE REQUIRED

With 256 member organizations, including 37 countries, the Global Alliance for Buildings and Construction (GLobalABC) is the leading global platform for governments, the private sector, civil society and intergovernmental and international organizations to increase action towards a zero-emission buildings and construction sector. WBCSD co-chairs the Steering Committee of the GlobalABC alongside Ministry of Ecological and Inclusive Transition (MTES) of the French Republic.

The GlobalABC should provide the focal point for the action recommended. It has identified three levers to drive this transformation to net zero along the full value chain:

1. Align public funding, public procurement and economic recovery spending for buildings and infrastructure with commitments to net zero, increasing resilience and upskilling the workforce.

2. Enable and accelerate private sector investments in net zero solutions by highlighting their important role, aligning interests between stakeholders, outlining possible adaptation and transition risks as well as opportunities associated with the transition. Transformational investments should be incentivized and de-risked (e.g. retrofitting, factories upgrade, etc.).

3. Enhance and standardize climate disclosures to support built environment investors' commitments through transparency and accountability.

WBCSD is also working with several partners from the finance sector to adopt a full life cycle approach in investment and lending decisions for buildings, by developing a common language and technical guidance on Whole Life Carbon assessment. Partners of this Finance and Built Environment (FIBE) Cluster include IIGCC, PCAF, SBTi, the UK CBI the Green Finance Institute (GFI), the Urban Land Institute (ULI) and others.

Finally, there is a need to promote circular economy principles and solutions to reduce CO_2 emissions associated with buildings and reduce impacts on nature. The circular economy is an economic model that is regenerative by design. The goal is to retain the value of the circulating resources, products, parts and materials by creating a system with innovative business models that allow for long life, optimal (re)use, refurbishment, remanufacturing and recycling.

The next step can be to help leading companies from the GlobalABC advance these action areas and help them establish corporate accountability for their commitment to act, following the 4 Phases as Figure 1 in this report illustrates.

4. Mobility and transport systems

The IEA Net Zero Scenario calls for zero-emission vehicles to reach 60% of global market share by 2030 thereby abating road transport emissions by 26% by 2030 compared to 2020 levels (3.7 GT in 2030 compared to 5Gt in 2020).

In terms of a core focus for action now, for impact in the next five years, three areas were identified:

- **Strengthen international collaboration between business and government to help all countries adopt an end date for the sales of internal combustion engines** in line with net-zero, on all segments, as per the recent announcement of the European Union or California, with a particular focus on developing economies. Replicate and scale notable efforts including initiatives such as the Zero Emission Vehicles Transition Council (ZEVTC) catalyzed by the UK Government, or the national MOU for Medium and Heavy-Duty Zero Emission Vehicles led by the US Department of Energy and Environment.

- **Collaborate to create a scaling framework for international public-private collaboration to change innovative pilots into transformative projects and mobilize large scale investments for transport decarbonization.** The Global Facility to Decarbonize Transport (GFDT) hosted by the World Bank can provide an important driver for such collaboration between business, the financial sector and investor community and governments. The Indian Government's CESL e bus initiative (overseeing the world's largest EV public bus tender) or the Zero Emission Bus Resource Alliance (ZEBRA) in the United States offer flagship examples of large scale, public-private EV investments being implemented. These kinds of initiatives could be replicated around the world through such a framework for international public-private collaboration, with additional support from networks like the Institutional Investor Roundtable and others.

- **Governments and business should work together to introduce policies that promote efficient integration of Zero Emission Vehicles across mobility energy and real estate sectors** by using the WBCSD Value framework for sustainable charging infrastructure. This provides a technology and policy framework for business and public sector officials in the mobility, energy and real estate sectors to work together to enable transition to 100% electric fleets.

It highlights nine key business and policy actions that can unlock shared value and improve the business case for sustainable infrastructure implementation including access to space, grid, renewable energy, data sharing and vehicle participation in a flexible energy market.

HOW TO IMPLEMENT THE CHANGE REQUIRED

As these areas of focus show clearly, innovative partnerships and collaboration between government and business are proving to be key mechanisms for accelerating zero emission vehicles uptake across the whole Zero Emissions Vehicle agenda. In road transport, the Zero Emission Vehicles Transition Council (ZEV-TC) which stemmed from COP26 and involves WBCSD is one of the most promising public-private partnerships that is helping to do this. ZEV-TC helps private sector actors, finance and government come together and discuss how best to accelerate the ZEV transition in specific national contexts. There is a specific action program for 2023 that WBCSD is involved with, which businesses are encouraged to engage in.

The campaign will launch at COP27 with the aim of finalizing agreements across a number of countries on planned policies and levels of investments by COP28.

THE ZERO EMISSION VEHICLES TRANSITION COUNCIL

Formed at COP26, the Zero Emission Vehicles Transition Council (ZEV-TC) is the world's first political forum through which representatives from governments collectively accounting for more than half of all new car sales globally meet to discuss how to accelerate the pace of the global transition to ZEVs.

To address the growing gap between commitments and deployments in emerging markets, ZEV-TC is working in partnership with WBCSD to host a campaign to highlight private sector contributions and seek specific country policy announcements and company investments. Convening regional dialogues with industry throughout 2023, ZEV-TC will team up groups of companies prepared to invest in ZEV deployment with governments that are prepared to enact and implement enabling policies.

5. Food and agriculture systems

According to the Food and Agriculture Organization of the United Nations (FAO), food systems account for over one-third of global greenhouse gas emissions. Estimates put food system emissions at 17 billion tons of CO_2e in 2019, or 31% of global GHG emissions. In addition, rising food prices and increasing food insecurity are placing undue pressure on the system. The prices of food and agricultural products have soared since the start of the COVID-19 pandemic, a trend that the Russian invasion of Ukraine has exacerbated. The FAO Food Price Index reached a new historical record high in March 2022, up 12.6% from February and 33.6% from its level a year earlier and 15.8% higher than the peak reached in February 2011.

Meanwhile, 45 countries, including 33 in Africa, 9 in Asia, 2 in Latin America and the Caribbean and 1 in Europe, are in need of external assistance for food. Multi-year droughts have engendered a grave food insecurity situation in East Africa, with famine expected in parts of Somalia unless humanitarian assistance increases. High inflation rates, challenging macroeconomic environments and depreciating currencies are aggravating food insecurity conditions in low-income food deficit countries.

Fiscal reform can help redirect financial flows from environmentally harmful subsidies to transform the food and agriculture system. The B Team and Business for Nature (BfN) estimate that the world is spending at least USD $1.8 trillion a year, equivalent to 2% of global GDP, on subsidies that are driving the destruction of ecosystems and species extinction. The agricultural sector receives USD $520 billion of this total figure, while the forestry sector receives a further USD $155 billion. Reforming environmentally harmful subsidies, public support and incentives in these sectors so that payments and financial incentives include small, medium and large-scale farmers, and committing to embedding health and sustainability requirements in public procurement will support net-zero, nature-positive actions and finance a just transition.

Reducing GHG emissions, rising food prices and food insecurity and tackling harmful food subsidies are all fundamental reasons to act at COP27 to build more resilient food systems that ensure affordable, accessible, sustainable and nutritious food for all. To address these issues, business and government must work together to transition the system to deploy more regenerative and sustainable agricultural practices to sequester carbon and increase soil health and biodiversity, improve the agri-food value chain and ensure living incomes and resilient livelihoods for all.

In terms of a core focus for unlocking global business action now, for impact in the next five years, three policy areas were identified from the dialogue with WBCSD member companies:

1. **Introduce fiscal policies that encourage nature-positive technological innovation and its scaling across the agri-food sector.** For example, regulators should set up agreed standards and guidelines for regenerative agriculture technology which would promote resource efficiency and climate smart production, such as farm approaches to optimize carbon capture, water conservation, soil health and energy efficient refrigeration and transportation. This can also include harnessing digitalization to link small-scale growers of climate-smart crops to processing opportunities and markets.

2. **Reform environmentally harmful subsidies, public support and incentives to support net-zero, nature-positive actions and finance a just transition** so that payments and financial incentives include small, medium and large-scale farmers, and commit to embedding health and sustainability requirements within public procurement.

3. **Establish global guidelines, under the aegis of international UN agencies and supported by national standards, regulations and incentives, to accelerate the uptake of sustainable food options and build consumer trust.** These include sustainability and health requirements within public procurement and creating an enabling environment to educate consumers and facilitate access towards healthy and sustainable choices. As an accountability mechanism, integrate food systems metrics in the NDCs and NAPs to accelerate climate action and track progress at national level.

To help leading global businesses in the food and agriculture system rapidly reduce emissions and build resilience across their site-specific activities and global value chains, the role of partnerships is key. Four project partnerships involving WBCSD member companies and other partners and businesses offer much potential for significant emissions reduction and the building of resilience in food and agriculture to 2030:

1. **Agri-commodity sector roadmap – new for COP27**

2. **Agriculture for 1.5, part of WBCSD's Scaling Positive Agriculture project**

3. **One Planet Business for Biodiversity (OP2B)**

4. **Sustainable Rice Landscapes Initiative (SRLI)**

HOW THESE PARTNERSHIPS HELP REDUCE EMISSIONS AND BUILD RESILIENCE IN FOOD AND AGRICULTURE

WBCSD, together with the Tropical Forest Alliance (TFA), is facilitating the efforts of 13 of the world's largest agricultural trading and processing companies with over USD $500 billion of revenue to deliver a high-ambition roadmap for the agri-commodity sector for COP27. The roadmap will outline how these companies will accelerate action within their supply chains to halt commodity-linked deforestation in line with a 1.5°C pathway, as indicated in their Joint Statement at COP26.

The roadmap consists of three primary pillars:

- Accelerate supply chain action by reporting progress against commodity-specific implementation plans;
- Raise climate ambition by accounting for and reducing emissions from land-use change as part of an overall 1.5°C emissions reduction trajectory;
- Support forest-positive sectoral transformation through collaboration with key stakeholders including governments, other supply chain actors and the finance sector to drive sector transformation and shared responsibility to address the root drivers of commodity-driven deforestation and secure future supply.

In WBCSD's Scaling Positive Agriculture project, over 30 member companies work together in the Agriculture for 1.5 project to help set and deliver decarbonization pathways in line with a 1.5°C emissions reduction trajectory. This way food and agriculture businesses can learn and transition to business models aligned with reducing GHG emissions; build business coalitions in their value chains, such as in agri-banking, livestock and fertilizers, to enable the development of frameworks, tools and metrics to reduce emissions; and improve accountability and reporting for emissions through the development of GHG Protocol metrics specific to the food and agriculture sector.

One Planet Business for Biodiversity (OP2B) is an international cross-sector, action-oriented business coalition on biodiversity with a specific focus on agriculture. Hosted by WBCSD, the coalition is focused on driving transformational systemic change and catalyzing action to protect and restore cultivated and natural biodiversity within the value chains, engage institutional and financial decision makers, and develop and promote policy recommendations that promote nature-positive biodiversity. It has three action pillars: scaling up regenerative agriculture; enhancing cultivated biodiversity; and protecting high-value ecosystems.

To establish credible corporate accountability for the actions being undertaken by each participating company in each of these projects, the four-phase approach as set out in Figure 1 in this report provides a common pathway for each business to take through the Corporate Carbon Accountability System, as well as providing a means to share best practices challenges across the group.

Through the Sustainable Rice Landscape Initiative (SRLI) in South-East Asia, multiple stakeholders, including WBCSD, FAO and national governments, collaborate to implement sustainable rice practices that catalyze climate adaptation. Since 2018, the SRLI initiative has mobilized USD $70m into 9 countries, generating USD $800m in co-financing.

THE SUSTAINABLE RICE LANDSCAPES INITIATIVE

The SRLI is also developing a blended finance facility with a USD $1.15m GEF grant. This aims to mobilize a further USD $500m for sustainable rice, benefiting 1 million people and delivering adaptation benefits over 2-4m ha. WBCSD's role is to engage business in these activities, with FAO leading overall.

Some 3.5 billion people eat rice daily; 144 million farmers produce rice; and rice supports the livelihoods of over 1 billion people. Consequently, the SRLI represents a unique opportunity for scaling up an integrated climate and nature-based solution - its innovative agricultural practices help to reduce methane emissions by up to 70% and the landscapes in which it grows are essential carbon sinks and ecosystem services. The involvement of key food crops also means the private sector plays an important role, alongside civil society, government and research, in delivering sustainable change along the value chain. It also has high and proven potential to increase incomes for smallholder rural farmers, improving resiliency and livelihoods and strengthening rice farming communities.

In addition to delivering on and scaling these partnerships, a food system resilience model could be built on existing best practice based on early warning mechanisms, such as the World Health Organization's pandemic prevention, preparedness and response accord, to prevent famines and food shortages and reduce the dependency on humanitarian relief. The resilience model would allow companies to collaborate with key international and research organizations (for example, the World Bank, CGIAR etc.) to develop rapid response plans to help countries and communities respond to imminent hunger crises, while supporting more long-term innovation and adaptation work to build food system resilience and adaptation. The inclusion of local communities should underpin this work as food system resilience will depend on the engagement of strong local communities.

At the multilateral level, the 2021 UN Food Systems Summit mobilized over 100 countries to develop national pathways for sustainable food systems. This coordinated approach led by the United Nations and supported by national dialogues has allowed countries to set targets and strategies to accelerate action at the country level. Under the aegis of United Nation agencies, global guidelines supported by national standards, regulations and incentives could be established to accelerate the uptake of sustainable food options and build consumer trust. This includes sustainability and health requirements in public procurement and creating an enabling environment to educate consumers and facilitate access to healthy and sustainable choices.

As an accountability mechanism, integrating food system metrics, including commitments from business in the food and agriculture sector, into NDCs and National Adaptation Plans can help to accelerate action on climate and resiliency, and help track such progress at the national level.

6. Capital Market systems

Finally, underpinning the entire economy is the requirement to transform capital markets to account for true value creation. Business must provide clear, comprehensive and reliable information so that investors and other critical stakeholders can make informed decisions about where to allocate their resources to spur action in this critical decade.

To foster the scale of change required in the global economy, capital markets must move to properly value and incentivize sustainable business practices by rewarding the companies with the greatest positive social and environmental impact with a lower cost of capital.

As it stands, profits are not, in today's capital markets, a reliable indicator of societal contribution because they do not account for too many social and environmental costs and benefits. This situation is a result of failures at multiple levels – from the way investors measure economic and business performance, to the market structures and dynamics that favor financial value extraction, to the institutions that are meant to oversee and regulate markets in order to ensure they function efficiently, fairly and sustainably.

For markets to price in environmental, social and governance (ESG) risks and impacts, investors, regulators and other market actors require high-quality, comprehensive, comparable data on those risks and impacts. Currently, the data available is patchy, backward-looking and difficult to compare across companies and sectors. Despite growing uptake of various ESG metrics and frameworks, standardization and harmonization efforts are still emerging – and, in most cases, non-financial reporting remains voluntary rather than mandatory. An essential element of providing markets with the data it needs, is the carbon accountability system as set out in Figure 1 and described in the Accountability section of this report.

Clear, comprehensive, reliable information is the foundation of well-functioning markets. The risks, opportunities, impacts and dependencies associated with climate change need to be clearly visible in the real economy and financial system so that investors and other critical stakeholders can make informed decisions about where to allocate their resources. Enabling better business and investor decision-making via sustainability and climate transparency and on the basis of clearer data will allow for the comparison and assessment of decarbonization action and climate risk and their inclusion in corporate valuation frameworks and stakeholder analysis.

In terms of a core focus for business action in 2023, one overriding action was consequently identified:

- **Promote clear and vocal business support for the ISSB prototype under development to become the mandatory global baseline for reporting.**

Showing how businesses can implement the ISSB prototype to achieve lower costs of capital is a high-impact area to concentrate efforts on.

Such a globally consistent, comparable, reliable and assured corporate reporting system is indispensable in providing stakeholders with a clear and accurate picture of an organization's ability to create sustainable value over time.

To this end, business calls on policy makers everywhere to make the ISSB reporting framework that is under development the baseline that is used globally to eliminate the current fragmentation in sustainability reporting. Making ISSB mandatory would accelerate greatly the capital markets' ability to properly price the impact of company decarbonization.

Efforts must also move beyond disclosure to also address capital allocation and valuation models, ensuring the driving down of the cost of capital for low-carbon transitions, projects, products and services. The way that companies connect strategy, value drivers and business transformation is therefore of utmost importance, combining equity and sustainability stories. WBCSD will continue to develop and advance work on valuation as a critical enabler of the mission to accelerate the transition to a sustainable world by making more sustainable businesses more successful.

TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES (TCFD) RECOMMENDATIONS

The Task Force on Climate-related Financial Disclosures (TCFD) Recommendations aim to help companies disclose climate-related financial risks and opportunities.
To support the implementation of the recommendations, WBCSD and the TCFD work together with member companies on key questions, challenges and development opportunities.

WBCSD convenes leading companies to support and shape the real economy response to TCFD and also the Taskforce on Nature-related Financial Disclosures (TNFD). TNFD). WBCSD advanced the implementation of TCFD through TCFD Preparer Forums for priority (oil & gas, electric utilities, construction & building materials, autos, chemicals and food, agriculture & forest products) and the development of scenario analysis approaches and guidance on financial impact on power utilities and is now responding to and providing input on the TNFD via a TNFD pilot program. In November 2022, WBCSD will launch five new climate transition scenarios for food, agriculture and forest products companies, and further guidance on climate-related financial impact assessment.

Over 50 WBCSD member companies are demonstrating their commitment, leadership and experience on climate and nature imperatives, advancing risk management and operating at the highest level of transparency.

BEYOND COP27

Now more than ever, the world needs state and non-state actors to deliver on the promises and commitments they made in Glasgow and before to honor the Paris Agreement.

The science is clear. The planet is facing a series of tipping points in the next 10 years. Without urgent action, the world will cross the tipping points and will significantly increase the risk of generating large-scale abrupt or irreversible environmental changes that disrupt the nine planetary boundaries within which humanity exists. This threatens humanity's potential to continue to develop and thrive for generations to come.

The COP27 President has launched the start of the implementation agenda and the onus is now on business, policy-makers and other crucial stakeholders to deliver.

The Business of Climate Recovery: Accelerating Accountability, Ambition and Action, developed in a consultative process with member companies, provides an overview of some of the most promising ambition and action platforms for business. It also sets out a menu of specific interventions for accelerating the global decarbonization of business, involving business leadership with closer government collaboration to:

- Sharpen Accountability
- Raise Ambition, and
- Deliver Action at speed and scale

Collectively, these interventions with business can radically advance the international climate change agenda in the next five years. This report hopes to offer a practical response to the COP27 President's challenge for the climate agenda to move away from launching pledges and towards project implementation at scale.

In this report, leading businesses have put forward proposals and policy ideas to raise the ambition level, scale up action in systems transformation and most importantly move beyond mere commitments and targets to create a holistic corporate climate accountability system that will show the progress business is making against its net zero targets, as well as crystallize the contribution of business in the delivery of Nationally Determined Contributions.

During COP27 – and in the weeks and months that follow – more discussions will undoubtedly advance the suggestions featured here.

WBCSD, its member companies and wider partners look forward to further engagement with governments, the United Nations, foundations, investors, the wider business community and other critical stakeholders to explore how to best implement these practical interventions, with key international milestones such as COP28, the United Nations General Assembly 2023 and the United Nations Environment Assembly 2024 in mind for delivery.

To this end, WBCSD is delighted that the Director General of the United Arab Emirates COP28 has formally welcomed WBCSD to host its 2023 Council Meeting in the UAE at the time of COP28, from Friday 3 November to Sunday 5 November, 2023.

[1] The member companies involved in this work acknowledged and drew upon on the We Mean Business Coalition's 4 A's of Climate Leadership, which offers businesses guides on ambition, action, accountability and advocacy with external links, and best practice leadership case studies under each of the 4 As. This framework builds on the 4 A's of Climate Leadership to focus on key implementation priorities for the private sector and governments, as urged by the COP27 Presidency.

[2] The following actions do not cover all the action areas that participating businesses have identified. A comprehensive accompanying document lists the full set of reflections and suggestions from our member companies.

[3] https://www.wbcsd.org/Programs/Climate-and-Energy/Energy/REscale

ANNEX I – ACCOMPANYING POLICY PRIORITIES FOR COP27

WBCSD has developed a business implementation agenda for COP27 – known as the *The Business of Climate Recovery: Accelerating Accountability, Ambition and Action*. The practical framework shows how business can support governments in implementing key policies and partnerships quickly and at scale. WBCSD's *The Business of Climate Recovery: Accelerating Accountability, Ambition and Action* is a delivery-oriented follow up to the Business Manifesto for Climate Recovery, reflecting the Egyptian Presidency's call to focus on implementation.

This accompanying annex builds on the practical framework outlined in *The Business of Climate Recovery: Accelerating Accountability, Ambition and Action* and identifies a comprehensive series of policy priorities, supported by examples of private sector implementation of climate action, which have been developed in partnership with c.30 leading WBCSD member companies as part of the Climate Policy Working Group (CPWG) from June to October 2022.

In all four corners of the world, WBCSD member companies are leading the implementation drive for climate action. These leading member companies can showcase how they are achieving emissions reductions across sectors, value chains and regions to help each other meet their goals and drive further ambition at the global, regional and national level.

WBCSD and its member companies have outlined key policy priorities for policymakers that must be incorporated into their legislative agendas, supported by examples of WBCSD member implementation. These policy priorities will remove the barriers to action and create the enabling environment needed for continued climate ambition and action in the following sectors and enablers:[1]

- **Sectors**
  - Energy Systems
  - Industry Systems
  - Built Environment Systems
  - Mobility & Transport Systems
  - Food & Agricultural Systems
- **Enablers**
  - Circularity
  - Capital Markets
  - Governance & Collaboration
  - Innovation & Technology
  - People
  - Adaptation & Resilience
  - Nature

This work represents the collective view of WBCSD and its member companies. While the document was developed in a consultative process with member companies, it does not necessarily represent specific or comprehensive endorsements by these member companies on any policy intervention or action, and is subject to further amendments and evolution.

[1] These policy priorities and examples will continuously be developed and evolved further, also based on external developments and collective business priorities

AMBITION

POLICY PRIORITIES

1. With just seven years remaining for emissions to be halved by 2030, it is essential that governments raise the ambition level of their NDCs to be in alignment with a 1.5°C pathway and net-zero emissions by 2050.

2. The single most effective policy instrument that governments could implement to help redirect investments towards the net zero transition would be an effective price on carbon.

3. Business can support the Global Stocktake process through advancing their own climate ambitions. They could do this by setting and communicating ahead of COP28, a science-informed target to reach net zero before 2050 aligned with a 1.5°C trajectory.

SECTORS

ENERGY SYSTEMS

SECTOR TARGET

- Reach 100% decarbonized power systems by 2035 in advanced economies and by 2040 for other countries, at the latest.

POLICY PRIORITIES

1. Review and enhance policies that improve energy efficiency in energy production and use. Proven enablers include energy performance labelling and disclosure, minimum energy performance standards and mandatory energy efficiency audits alongside incentive schemes to finance the upfront costs. Investments in energy efficiency can immediately help to improve energy security and resilience as well as address cost of living concerns.

2. End new coal-fired power plant development and financing immediately. Develop plans to phase out coal-fired power generation by 2030 for advanced economies, and 2040 for other countries at the latest, and only where absolutely required prevent unabated use of coal through Carbon capture and storage (CCS for otherwise stranded, long-life assets.

3. Stop issuing new permits for greenfield oil and gas exploration and development from now on in order to pursue a 1.5°C pathway, as stated per the IEA World Energy Outlook 2021.

4. Ensure a stable policy environment for renewable and low-carbon energy projects - simplifying permitting and commissioning, ensuring suitable on- and offshore areas are available to meet future demand, and investing in education, up- and re-skilling for the energy industry. Continue direct support to new technologies in R&D as well as first pilot projects to ensure varied forms of technologies are available to effectively use resources. Design markets and regulations to harness and remunerate the full potential of renewable and low-carbon generation assets.

5. Develop long-term investment plans for power grid infrastructure to support the energy transition at the required pace aligned with the 1.5°C pathway. Streamline planning and permitting processes for grid infrastructure extensions to ensure renewable and low-carbon generation systems and associated infrastructure are build out in tandem.

PRIVATE SECTOR EXAMPLE

DNV

DNV supports Singapore's national water agency to realize 50 MW floating solar project. Operational in 2021, it is South East Asia's largest floating photovoltaic (PV) public tender. It will power the reservoir's water treatment facilities. It features a pioneering business model consisting of both conventional and renewable energy components. DNV supported the tender preparation, bidding, design, independent energy assessment, technology benchmarking and business model studies. It also supported the construction and operational phases of the project. With limited renewable energy options, solar power is the country's most viable renewable energy source. In such a densely populated country, the emerging technology of floating PV offers an attractive way to optimize the use of space while increasing the level of green energy. The floating PV generated 50MW of solar capacity which reduces annual CO_2 emissions by 28,000 tons.

EDP

The Pulau Ubin Microgrid aims to transition Palau Ubin island from the use of diesel generators for power generation to utilizing up to 90% renewables. This is achieved through the installation of new rooftop solar photovoltaic (PV) systems (1MWh) combined with a Vanadium Redox Flow Battery (1 MWh). A smart microgrid controller would optimize the use of renewables while using diesel generators for back up and emergencies.

While providing cleaner energy and enhancing the reliability of power supply, the microgrid also retains the greenery and rusticity of Pulau Ubin through the adoption of a solar green roof. The PV system will be installed on top of an extensive green roof that improves its efficiency. When completed in 2023, the microgrid will generate 379MWh / year and power over 30 households and businesses in the island, reducing annual diesel consumption by approximately 100,000 litres. The improved capacity and reliability also enables residents at other parts of Palau Ubin to be connected to the microgrid.

INDUSTRY SYSTEMS

SECTOR TARGET

- Industrial CO_2 emissions from G7 heavy industry sectors decline by 27% by 2030 relative to today, compared to 18% for the rest of the world.

POLICY PRIORITIES

1. Embed the deployment of electrification, hydrogen and CCS technologies in national decarbonization strategies to ensure the most appropriate and competitive solutions with lowest possible life cycle emissions are adopted across the various industrial applications. Early recognition of required infrastructure and opportunities is critical.

2. Design market and policy environments tailored to the varying maturity levels of different technical solutions and industry sectoral needs. Public-private partnerships are critical for coordination across sectors and energy vectors, and to attract investments at pace.

3. Implement a clear taxonomy, credible standards, certificates and robust market trading mechanisms for sustainable heat, hydrogen and CCS solutions to ensure that the different solutions are deployed in line with 1.5°C-aligned 2050 scenarios.

PRIVATE SECTOR EXAMPLE

Iberdrola

Iberdrola has constructed the largest plant producing green hydrogen for industrial use in Europe. The Puertollano (Ciudad Real) plant consists of a 100 MW photovoltaic solar plant, a lithium-ion battery system with a storage capacity of 20 MWh and one of the largest electrolytic hydrogen production systems in the world (20 MW); all from 100 % renewable sources. The solar plant has several innovations: the installation will have bifacial panels, never used before in company projects, which enable greater production since they have two light-sensitive surfaces and provide a longer useful life; the plant has been designed with cluster inverters or string inverters, which improve the yield and allow better use of the surface area; finally, the project will have a storage system, which will facilitate plant management. The battery system (with 5 MW of power) will have a storage capacity of 20 MWh.

With an investment of 150 million euros, the initiative will create up to 1,000 jobs and prevent emissions of 39,000 tCO_2/year. The green hydrogen produced there will be used Fertiberia's local ammonia plant. This is already one of the most efficient plants in the EU with a production capacity of more than 200,000 t/year. Fertiberia will update and modify the plant to be able to use the green hydrogen produced to manufacture green fertilizers. Thanks to this technology, it will be able to reduce natural gas requirements at the plant by over 10 % and will be the first European company in the sector to develop expertise in large-scale green ammonia generation.

The plan would achieve 830 MW of electrolysis, equivalent to 20 % of the national target of 4 GW installed by 2030, and would ensure that around 25 % of the hydrogen currently consumed in Spain would not generate CO_2 emissions.

BUILT ENVIRONMENT SYSTEMS

SECTOR TARGET

- By 2030, the built environment should halve its emissions relative to 2022. 100 per cent of new buildings must be net-zero carbon in operation, with widespread energy efficiency retrofit of existing assets well underway (considering resilience to climate extremes), and embodied carbon must be reduced by at least 40 per cent, with leading projects achieving at least 50 per cent reductions in embodied carbon.

POLICY PRIORITIES

1. Develop national and sub-national decarbonization and resilience roadmaps aiming to address energy performance and whole lifecycle emissions for new and old buildings, and promote multi-stakeholder collaboration between cities, regions, businesses, and civil society actors to accelerate action. These outputs should be integrated in the next round of NDC and (Long Term Plans) LTP updates.

   Countries could join global initiatives driving international collaboration, such as the Buildings Breakthrough led by France and Morocco, the Global Alliance for Buildings and Construction (GlobalABC), and the Net Zero Carbon Buildings Accelerator.

2. Whole life carbon (WLC) should become central in decarbonization strategies and decisions. Set WLC thresholds, clear milestones, and quantifiable targets and indicators, and apply them to the development of policies and regulations. Establish data tracking standards and systems to measure, report and access information regarding whole-life carbon (operational and embodied) emissions of buildings.

   The Global ABC Work Area 3 for Market Transformation has identified the three fundamental levers to drive the transformation to net zero along the full value chain.

3. Align public funding, public procurement and economic recovery spending for buildings and infrastructure with commitments to net zero, increasing resilience and upskilling the workforce. Enable and accelerate private sector investments in net zero solutions by highlighting their important role, aligning interests between stakeholders, outlining possible adaptation and transition risks as well as opportunities associated with the transition. Transformational investments should get incentivized and de-risked (e.g. retrofitting, factories upgrade, etc.). Enhance and standardize climate disclosures to support built environment investors' commitments through transparency and accountability.

   WBCSD is working with several partners from the finance sector to adopt a full life cycle approach in investment and lending decisions for buildings, by developing a common language and technical guidance on Whole Life Carbon assessment. Partners of this Finance and Built Environment (FIBE) Cluster include IIGCC, PCAF, SBTi, CBI, GFI, ULI and others.

4. Promote circular economy principles and solutions to reduce CO_2 emissions associated with buildings and reduce impacts on nature. The circular economy is an economic model that is regenerative by design. The goal is to retain the value of the circulating resources, products, parts and materials by creating a system with innovative business models that allow for long life, optimal (re)use, refurbishment, remanufacturing and recycling.

PRIVATE SECTOR EXAMPLE

Swire Properties Limited

Swire Properties completed a detailed cradle-to-site carbon footprint measurement of One Taikoo Place, its triple-platinum-certified green office building in Hong Kong, and based on the LCA analysis, the company has established Hong Kong's first Science-based Targets to reduce embodied carbon from future development projects.

The total cradle-to-site carbon footprint of One Taikoo Place is 69,948,279 kg CO_2-e, and the carbon emission per construction floor area is 575 kg CO_2-e/m^2. Detailed breakdown shows that embodied carbon in the building's concrete, rebar and structural steel contributes to nearly 90% of total emissions.

Through LCA calculation, Swire Properties has identified measures to achieve carbon reduction in future development projects, including setting performance-based targets on embodied carbon for concrete, rebar/steel in other pipeline development projects, and improving the structural design of developments. It has also pioneered to include low-carbon procurement specifications for building materials used in new developments in contracts with main contractors.

For Two Taikoo Place, a new triple Grade-A office building development that is set for completion in 2022, has been able to procure 100% low-carbon concrete which is certified at "Platinum" level by Construction Industry Council (CIC) in its Green Product Certification Scheme. These low-carbon concrete contain approximately 25% pulverized fuel ash in the cementitious content.

In addition, a certain amount of the rebar is produced through an electric arc furnace process, a production method proven to have a smaller carbon footprint. Recycled steel is also used for rebars to reduce the embodied carbon emissions.

MOBILITY & TRANSPORT SYSTEMS

SECTOR TARGET

- Zero-emission vehicles to reach 60% global market share and abate road transport emissions to 30% by 2030.

POLICY PRIORITIES

1. Strengthen international collaboration to help all countries adopt an end date for the sales of Internal combustion engines in line with net-zero, on all segments, as per the recent announcement of the European Union or California, with a particular focus on developing economies.

   Initiatives led by the Zero Emission vehicle Transition Council (ZEVTC), or the MoU for Zero Emission Medium and Deavy Duty are notable efforts in that area which can be replicated and scaled.

2. Collaborate to create a scaling framework for international public-private collaboration to change innovative pilots into transformative projects and mobilize large scale investments for transport decarbonization.

   Initiatives like the ZEVTC international Assistance task Force, The Institutional Investors roundtable, the Global facility to decarbonize transport, provide important building blocks, while the India CESL e-bus or ZEBRA are good flagships examples of such framework, and more similar action globally is required.

3. Introduce policies that promote efficient integration of Zero Emission Vehicle in the grid and built environments, including access to space, grid, renewable energy and vehicle participation in energy flexibility market, including data sharing.

   As suggested by WBCSD Charging infrastructure value framework; which provides a technology and policy framework bridging the infrastructure gap to net zero mobility, helping businesses and policymakers understand how to practically accelerate change.

PRIVATE SECTOR EXAMPLE

Eaton

Eaton has supported Swiss post operator, La Poste, to power two of the site's electric vehicles using solar PV energy captured on site to Eaton has supported Swiss post operator, La Poste, to power two of the site's electric vehicles using minimize the impact of vehicle charging on the public electricity grid and reduce carbon footprint. To achieve the optimal charging experience with least grid impact and maximizing charging from renewable energy sources, Eaton has coupled xStorage Home, consists of a hybrid inverter and a second-life battery pack with a nominal capacity of 4.2 kWh with the charging station and the photovoltaics. The unit is controlled by software built into the Eaton xStorage Home system, which automatically manages the distribution of energy flows. Such integrated solution provided an average of almost 60% of the power supply to the two electric vehicles on site.

Ingka Group

Ingka Group's ambition is to become climate positive by 2030 and to switch to 100% zero-emissions home deliveries by 2025. In FY21, 11% of home deliveries were made using zero emissions vehicles. Ingka Group currently deploys EVs for last mile home deliveries in 22 countries. The total number of zero emissions deliveries increased by as much as 49.7% in FY21 compared to FY20. In 2019, Shanghai became the first city where all home deliveries are transported by EV vehicles. The latest city to reach 100% zero emission deliveries in FY22 is Vienna, joining Glasgow, Nice and Amsterdam. Almost 1,000 additional EVs have been ordered and are expected to be operated in the coming 6-8 months. Ingka Group also took two recent investments in Urb-it, a Swedish sustainable logistics platform that provides last mile deliveries across Europe and in Bolt Logistics, a Canadian technology--enabled logistics and last-mile delivery provider.

FOOD & AGRICULTURAL SYSTEMS

SECTOR TARGET

- By 2030, the food and agriculture sector should halve GHG emissions across the value chain (including Scope 3 emissions) through a just and equitable transition.

POLICY PRIORITIES

1. Introduce fiscal policies that encourage nature-positive technological innovation and its scaling across the agri-food sector. For example, by regulators setting up agreed standards and guidelines for regenerative agriculture technology which would promote resource efficiency and climate smart production, such as farm approaches to optimize carbon capture, water conservation, soil health and energy efficient refrigeration and transportation. This can also include harnessing digitalization to link small-scale growers of climate-smart crops to processing opportunities and markets.

2. Reform environmentally harmful subsidies, public support and incentives to support net-zero, nature-positive actions and finance a just transition so that payments and financial incentives include small, medium and large-scale farmers, and commit to embedding health and sustainability requirements within public procurement.

3. Under the aegis of international UN agencies, establish global guidelines, supported by national standards, regulations and incentives to accelerate the uptake of sustainable food options and build consumer trust. This includes sustainability and health requirements within public procurement and creating an enabling environment to educate consumers and facilitate access towards healthy and sustainable choices. As an accountability mechanism, integrate food systems metrics in the NDCs and NAPs to accelerate climate action and track progress at national level.

   The 2021 UN Food Systems Summit mobilized over 100 countries to develop national pathways for sustainable food systems. This coordinated approach led by the United Nations and supported by national dialogues allowed countries to set targets and strategies to accelerate action at country level but accountability mechanisms such as the NDCs, as well as greater access to climate adaptation finance will be required to ensure progress at scale.

PRIVATE SECTOR EXAMPLE

Nestlé

Skimmelkrans, a 600ha farm, is a 4th generation Nestlé milk producer with a holistic approach towards sustainable dairy. This farm is earmarked to be the group's first Net Zero Emissions Dairy Farm by mid-2023 (3-year project). The Net Zero position is planned to be achieved via a 2-pathway strategy. First, the reduction of carbon footprint by introducing interventions to limit enteric fermentation through: addressing feed additives; increase on-farm feed production and less bought feed; manure spiral press has been installed to replace the manure pond; use of organic fertilizer and less chemical fertilizer to increase soil health; renewable electricity (solar installation) to lower the use of fossil energy. Second, sequestration of CO_2 from atmosphere and building as soil carbon via photosynthesis of multi- specie pastures. When the amount of carbon stored in the soil surpasses the amount of CO_2e produced (after reduction interventions) the farm becomes net zero, while annual soil analysis confirms the soil carbon levels.

To date, the Renewable Energy Plant resulted in 34% lower fossil energy usage Manure management has a 29% reduction in CO_2e. Correction of soil pH, soil health , together with multi- specie pastures have resulted in soil carbon increase of 14%. Higher yield multi-species pastures together with excellent pasture management has resulted in 11% increase in milk production. Organic fertilizer (chicken manure) lowered the need for chemical nitrogen on the pastures and the use of no-till planter ensure minimal disturbance of the soil. In year one, 4200-ton CO_2e has been sequestrated as soil carbon followed by more than 6000-ton CO_2e in year two. Soil profiles confirm the improved soil health with the abundance of earthworms. All climate interventions will be rolled out to other Nestlé dairy farms.

Syngenta Group

Syngenta Group works with farmers to implement climate-smart practices such as minimum tillage, crop rotation, effective nutrient management which, combined with permanent crop cover strategies, help turn agricultural fields into carbon sinks. Brazil showcases the example of the ILPF (Integração Lavoura Pecuária Floresta) network project, which aims to accelerate the adoption of integrated crop-livestock-forest systems and the Reverte program helps farmers to regenerate degraded pastureland into productive field, increasing productivity and allowing short-term return of investment.

In 2020, Syngenta started reporting on the estimated carbon benefit on farmland adopting their soil conservation and biodiversity enhancement projects. The carbon benefit potential corresponds to the net change in soil carbon pools, reflecting the accumulated difference between carbon inputs to the soil after CO_2 uptake by plants and CO_2 release due to decomposition in soil. In 2020, the carbon benefit potential on farmland was 1,955k tons CO_2e. In 2021, it was 3,038k tons CO_2e. About half of this benefit potential comes from agronomic practices such as crop rotation and soil cover. These practices increase yield and generate higher inputs of carbon residue leading to increased soil carbon storage.

ENABLERS

CIRCULARITY

POLICY PRIORITIES

1. Support the creation and implementation of the Global Circularity Protocol, stemming from the Stockholm Action Agenda, to unlock the business transition to circularity. Systemic interventions would be identified, sector-specific solutions created, and time-to-goal actions established. The Protocol should contribute toward the distribution of benefits throughout the value chain to enable the participation of smaller companies from developing countries.

   The work on the Protocol will stimulate global multistakeholder partnerships and will strive toward creating synergies with other parallel policy processes.
   A science-to-policy dialogue process will be launched that would stimulate generating canvassed, concrete and inclusive ideas on how to advance the process forward up to the adoption of the Protocol.

2. Conclude the UN Treaty on plastic pollution negotiations (2022-2024) with a value chain approach while addressing the particularities and priorities within multiple sectors. WBCSD can contribute with plastic disclosure metrics for companies along the plastic value chains that can facilitate the harmonization, standardization and comparability of corporate plastic disclosure.

1. The business community welcomes the Business Coalition for a Global Plastics Treaty led by WWF and EMF. WBCSD aims to help its members participate in the work of the Coalition and provide policy inputs into the process through an inclusive approach. Collaborating with other partners as part of UNEP Business and Industry Major that WBCSD co-chairs should help advance generation of ideas that would stimulate the negotiations and hopefully lead to a successful outcome of the UNEA meeting in 2024.

PRIVATE SECTOR EXAMPLE

PepsiCo
PepsiCo is developing a circular economy for its plastic use. In early 2022, PepsiCo Europe announced that by 2030, it aims to eliminate virgin fossil-based plastic in all its crisp and chip bags, reducing GHG emissions from film packaging for food by up to 40%. This ambition will apply to brands including Walkers, Doritos, and Lay's and is expected to be delivered by using 100% recycled or renewable plastic in its packets. The recycled content in the packs will be derived from previously used plastic and the renewable content will come from by-products of plants such as used cooking oil or waste from paper pulp. PepsiCo estimates it could achieve up to 40% greenhouse gas emissions reduction per ton of packaging material by switching to virgin fossil-free material. In late 2021, PepsiCo invested USD $15 million in the Closed Loop Partners' Leadership Fund, a private equity fund focused on strengthening recycling infrastructure and building circular supply chains, and in early 2022, invested USD $35 million to help create the Closed Loop Local Recycling Fund, to advance new small-scale, modular recycling systems in communities across the U.S.

CAPITAL MARKETS

POLICY PRIORITIES

1. Adopt the International Sustainability Standards Board (ISSB) as the global baseline for sustainability reporting and make disclosure against ESG and sustainability related risks mandatory across jurisdictions.
2. Strengthen regulatory guidance for considering climate change in the mandates, responsibilities, duties of investors and company directors.
3. Revise fiduciary duties of company directors and investors to incorporate climate risks and impacts.

PRIVATE SECTOR EXAMPLE

TNFD and TCFD for collaboration to drive business action

One of the essential functions of financial markets is to price risk to support informed, efficient capital-allocation decisions. Accurate and timely disclosure of operating and financial results are fundamental to this. Yet, two of the most significant and misunderstood, risks that organizations face today are climate and nature-related. TNFD and TCFD respond to this context by providing risk management and disclosure frameworks to support transparency and decision making.

WBCSD convenes leading companies to support and shape the real economy response to TCFD and TNFD. Advancing implementation of TCFD through TCFD Preparer Forums for priority sectors, the development of scenario analysis approaches and guidance on financial impact. Responding to and providing input on TNFD via pilot groups. Over 50 member companies demonstrating their commitment, leadership and experience on climate and nature imperatives, advancing risk management and operating at the highest level of transparency.

Better information will improve how climate & nature-related risks are assessed, priced and managed. Companies can more effectively measure and evaluate their risks and act on opportunities; investors can make informed capital allocation decisions; and lenders, insurers, underwriters will be better able to evaluate their risks and exposure over the short, medium, and long-term.

GOVERNANCE & RADICAL COLLABORATION

POLICY PRIORITIES

1. Introduce programs for skills building to ensure businesses around the world, in particular in developing regions, have the ability to deliver on existing sustainability policy commitments and/or set more ambitious commitments.
2. National policymakers to collaborate with the private sector and international organizations to ensure the alignment of new and existing carbon accounting methodological standards across different regional jurisdictions. Convergence will simplify how companies can measure, account and report their environmental impact, in turn allowing them to identify and act upon hotspots along the value chains for decarbonization.

PRIVATE SECTOR EXAMPLE

Carbon Transparency Partnership

The WBCSD-led Carbon Transparency Partnership (PACT) is a leading example of a new system development for Scope 3 data measurement and management. This partnership is supported by the most ambitious sustainable global companies working together to ensure their supply chain data is comparable, consistent and verified. It will be built on an open network to exchange primary product carbon footprints along value chains and across industries. It will also provide interoperability to connect different technology solutions and enable the exchange of other sustainability data.

As part of its mission to harmonize existing rules for the calculation of product-level emissions, PACT has published the Pathfinder Framework, an industry-agnostic guidance for emissions accounting and data exchange across value chains and supports the creation of selected industry-specific methodologies. The Pathfinder Framework builds on existing standards such as ISO standards (14044/40, 14067, 14025), GHG Protocol Product Life Cycle Accounting and Reporting standard and GHG Protocol Corporate Value Chain (Scope 3) standard by WBCSD and World Resources Institute under the GHG Protocol and sector guidelines like the Product Category Rules (PCRs) or the Product Environmental Footprint (PEF) methods by the European Commission.

SAP
SAP Product Footprint Management (PFM) supports product centric and manufacturing companies with insight regarding the environmental impact of their products, for disclosure to business partners or for internal product and process optimization, by minimizing efforts with scalability, using real-time analytics, ensuring feedback integration for optimization and creating a benefit from cross-network collaboration. SAP PFM allows companies to integrate their GHG emissions across the entire product lifecycle for clear carbon accounting and disclosures. CO_2 calculation happens bottom up and in real-time, while the analytics give actionable insights for constant product and end-to-end process optimization.

INNOVATION & TECHNOLOGY

POLICY PRIORITIES

1. To address the USD $21 trillion investment gap required to scale new low carbon technologies, national governments could utilize tax revenues from carbon pricing mechanism or provide seed funding to blended finance investment vehicles, in partnership with private sector investors, to finance new research and development departments or initiatives in public universities dedicated to researching innovations in low carbon technologies before 2030.

2. National and supranational policymakers must drive demand for the use of existing technologies, such as engineered removals, in emissions trading schemes, to enable trading of carbon removals credits, in addition to reductions credits, before 2025.

3. National incentivization schemes must be enhanced to scale the use of current technologies on existing infrastructure. Incentivization schemes in areas like grid storage, such as the establishment of Balancing Mechanisms within power markets, can encourage the trading of stored energy and drive the development of more energy storage projects on the grid.

4. Governments to accelerate the green and digital transition with enabling policies, investments, and skills developments programs, as well as multi-stakeholder collaboration to establish consistent data exchange frameworks and Scope 3 methodologies, crucial for carbon transparency across supply chains.

PRIVATE SECTOR EXAMPLE

ENEL
Enel's Green Electrification of Sardinia project, included in the Multi-Stakeholders Energy Compact of the United Nations, is based on the island's natural resources, specifically sun, wind and water. It will allow a transition from fossil fuel production to renewable energy and storage systems. The project will lead to the installation of 1 GW of battery storage and 4-5 GW of renewable energy sources, create 10,000 to 15,000 jobs, offsetting the closure of coal plants, reduce energy expenses by 50% for families and 20% for industries, and increase electrification of demand by at least 1.8 TWh in 2030 (2019 baseline: 8.5 TWh).

PEOPLE

POLICY PRIORITIES

1. National governments to introduce legislation that mandates businesses to declare support for the UN Guiding Principles on Business and Human Rights by having in place a policy to respect human rights, a human rights due diligence process, and annual progress reporting.

2. Establish domestic legislative agendas that remove discriminatory policies to ensure that people have equal access to work, and the benefits deriving from it, irrespective of gender, race, ethnicity, disability, age, sexual orientation, socioeconomic background.

3. National governments commit to support an economy-wide just transition to net-zero emissions before 2030 through instigating social dialogue with businesses, workers, and communities to ensure decent jobs meet high labor standards. Working with businesses to create tools and strategies that contribute to building resilience in the workforce, in businesses, in labor markets and in social support mechanisms. This includes investing in training and skills provision for workers who will need to transition from high emitting sector jobs into low emitting ones.

4. Donor governments and MDBs should work together to more strongly align development funding with targeted support for local jobs, skills, and investment, for the repurposing of fossil fuel assets and for environmental restoration, in the fossil fuel-dependent regions and communities.

5. Civil society, governments and industry should contribute to creating international centers of expertise on the just transition, within existing institutions. This action will be vital to ensure inclusive and participatory transition processes, effective social protection for affected workers and communities, and better economic and environmental outcomes.

PRIVATE SECTOR EXAMPLE

Business Commission to Tackle Inequality

As part of the BCTI, WBCSD is advancing business understanding and the application of an equitable net-zero transition in the context of some specific value chains. In collaboration with the Council for Inclusive Capitalism and PwC, in 2022, WBCSD has convened working groups to explore and elevate emerging best practice when it comes to realizing an equitable net-zero transition in the specific contexts of the food and agriculture and energy value chains. This work has leveraged the Council for Inclusive Capitalism's Just Energy Transition Framework and included in-depth discussions on the role of business in supporting an equitable transition to a net-zero economy that ensures the respect of human rights, that workers have the skills they need to prosper, the creation of jobs when and where they are needed, that consumers have reliable access to essential products and services, and the building-up of community resilience.

NATURE

POLICY PRIORITIES

1. Align climate policy with the Global Biodiversity Framework (GBF) by establishing ambitious and mutually beneficial targets, including to halt and reverse nature loss by 2030 and climate change mitigation through Nature-based Solutions (NbS).

2. Repurpose environmentally harmful agricultural subsidies to encourage regenerative agricultural practices that will reduce GHG emissions from land and restore carbon sinks.

3. Ensure 30% of international climate finance is channeled to high quality, nature-based solutions by 2025, to reflect their potential to provide 30% of the emissions reductions and removals needed to limit global warming to 1.5°C.

4. Eliminate commodity-driven deforestation by 2025 through trade policies developed in collaboration between producer and demand-side countries.

5. Support the development of transparent, reliable – voluntary and regulated - carbon markets that enable the deployment of high-integrity NbS at scale through the establishment of regulations or incentives for voluntary actions.

   The private sector recognizes the opportunity to channel investment into NbS. Alongside governments, businesses should

channel investment into high-quality NbS, which effectively address the permanence, additionality leakage, double-counting, robust quantification and verification of the climate mitigation activities implemented. These investments should above and beyond delivery of credits; resulting in a gain to biodiversity and ecosystem integrity, providing substantive social and economic benefits for local communities and Indigenous Peoples, as well as climate risk protection by improving the resiliency and adaptive capacity of landscapes.

PRIVATE SECTOR EXAMPLE

Natural Climate Solutions Alliance (NCSA)

As part of the NCS Alliance, WBCSD supports the growth of the demand for high quality NCS voluntary carbon credits. In 2022, the NCS Alliance focused on highlighting the NCS Leaders and NCS Lighthouses to create trust in prospective investors. In collaboration with ERM, it has developed a guide on Natural Climate Solutions and the Voluntary Carbon Market. In its next phase of development, the NCSA will build on its recognized knowledge on the nature and social outcomes associated to NCS credits (supported by its vast and diverse network) and will aim at creating the conditions for the nature and social outcomes to be valued but also traded separately from carbon credits. The NCSA will operationalize this by firmly placing nature and social requirements in the NCS carbon credits value chain, starting from promoting their integration in procurement practices; to investments' requirements to project developers' standards; and by exploring opportunities for expanding the market from its current exclusive focus on carbon credits to also include the trading of biodiversity and social outcomes.

Rabobank

Rabobank's ACORN project provides carbon credits for agroforestry and regenerative farming practices which support the livelihoods of smallholder farmers in developing countries. Rabobank developed an innovative and scalable method for measuring, certifying, and monetizing the biomass growth of planted trees and turning that growth into Carbon Removal Units (CRUs). The CRUs (or carbon credits) are sold to organizations with strong emission reduction commitments. To close the loop, 80% of the income of every sold CRU flows back to the original smallholder.

ADAPTATION & RESILIENCE

POLICY PRIORITIES

1. Strengthen collaborations with the private sector to work towards building adaptive capacity, strengthening resilience and reducing vulnerability to climate change. In particular, the business community calls for governments to include the private sector in the design, financing and implementation of national adaptation planning (NAPs).

2. Developed nations to double their collective provision of adaptation finance from 2019 levels by 2025, while establishing loss and damage finance mechanisms to support developing countries. All funding efforts must include recipients to ensure funds are targets on both established and innovative climate change adaptation processes.

   Partnerships such as the Adaptation & Resilience Investors Collaborative, can support the public and private sector collaboration needed to (a) assist developing countries with identifying and articulating their adaptation needs and potential private sector opportunities to address these, and (b) create the conditions for accelerating private sector finance for the adaptation and resiliency solutions required to deliver their country and/or local level adaptation plans and strategies.

PRIVATE SECTOR EXAMPLE

EDF Group

EDF has set an ambitious policy on adapting its activities to climate change consequences. All major business units of EDF Group have been requested to develop an adaptation plan by the end of 2022, plans that are presented at the Executive Committee level of the company.

The adaptation plan elaborated for the French nuclear fleet in the frame of the ADAPT project takes on board different issues such as the water resource for cooling, but also the impact of climate change on the value chain as a whole, including suppliers, service providers, as well as the local socio-industrial ecosystem around EDF's facilities (e.g. schools, transportation). This systemic approach to climate change adaptation, involving the use of natural based solutions, is currently under deployment at regional level by the Group.

DISCLAIMER

The Business for Climate Recovery: Accelerating Accountability, Ambition and Action does not necessarily reflect the viewpoints or constitute an endorsement of each organization and company that participated in the consultative process between June and October 2022. Please note that the data published in the report are as of November 2022.

ACKNOWLEDGMENTS

To engage with WBCSD to explore how to best implement the practical interventions suggested in Business for Climate Recovery: Accelerating Accountability, Ambition and Action, with key international milestones such as COP28, the United Nations General Assembly 2023 and the United Nations Environment Assembly 2024 in mind for delivery, please contact Clea Kaske-Kuck, Director of Policy, Advocacy & Member Mobilization.

ABOUT THE WORLD BUSINESS COUNCIL FOR SUSTAINABLE DEVELOPMENT (WBCSD)

WBCSD is the premier global, CEO-led community of over 200 of the world's leading sustainable businesses working collectively to accelerate the system transformations needed for a net zero, nature positive, and more equitable future.

We do this by engaging executives and sustainability leaders from business and elsewhere to share practical insights on the obstacles and opportunities we currently face in tackling the integrated climate, nature and inequality sustainability challenge; by co-developing "how-to" CEO-guides from these insights; by providing science-based target guidance including standards and protocols; and by developing tools and platforms to help leading businesses in sustainability drive integrated actions to tackle climate, nature and inequality challenges across sectors and geographical regions.

Our member companies come from all business sectors and all major economies, representing a combined revenue of more than USD $8.5 trillion and 19 million employees. Our global network of almost 70 national business councils gives our members unparalleled reach across the globe. Since 1995, WBCSD has been uniquely positioned to work with member companies along and across value chains to deliver impactful business solutions to the most challenging sustainability issues.

Together, we are the leading voice of business for sustainability, united by our vision of creating a world in which 9+ billion people are living well, within planetary boundaries, by mid-century.

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