

DONOR COMMITTEE FOR ENTERPRISE DEVELOPMENT

RESEARCH REPORT

Leveraging Private Sector Practices to Guide Green Business Environment Reform

BUSINESS ENVIRONMENT WORKING GROUP



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Background and Acknowledgements

In 2021, the Donor Committee for Enterprise Development (DCED) commissioned a report to better understand how public instruments can more effectively enable green growth. This report targets policymakers and development practitioners working on green growth and Business environment reform.

On behalf of the Business Environment Working Group of the DCED, BSR has conducted research on transformative private sector practices and how companies with leading green growth practices across industries have introduced green-growth-oriented business practices and models. The aim of the research was to identify experience and best practices in the private sector that can inform and influence public policies aimed at accelerating green growth.

The report was initiated in May 2021, and the study was conducted between July and October 2021. It was commissioned to BSR and written by Erin Leitheiser (BSR), Eileen Gallagher (BSR), Anine Bundgård (BSR), Solène Heredia (BSR) and Sarah Cornelles (BSR). The BSR team is particularly grateful to Kelly Siobhan (FAO), who managed the overall project for DCED, as well as comments and feedback from Anastasia Desantos (USAID), Andrew Griffiths (FCDO), Moussa Traore (USAID), Oyobe Shusuke (ILO), Rezaei Maryam (FAO), Sarwat Chowdhury (UNDP), Severine Deboos (ILO), Simon White, Steffen Felix (GIZ/BMZ), Sylvia Solf (World Bank), Mette Grangaard Lund (ILO), Arjan de Haan (IDRC), Toru Homma (JICA), and Brigitte Bruhin (SECO).

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About the DCED: The Donor Committee for Enterprise Development (DCED) is the global forum for learning, from experience, about the most effective ways for creating economic opportunities for the poor by working with and through the private sector. The DCED's 24 member agencies have developed a substantial body of knowledge and evidence about effective approaches – as summarized on the DCED website.

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Executive summary

Purpose of the report

The climate crisis is intensifying, and ambitious action is required to reach net-zero emissions in time to avoid the worst effects of climate change. The 2021 IPCC report paints a bleak future if immediate and ambitious action is not taken, making alignment with the Paris Agreement and limiting global temperature rises to 1.5°C crucial.

The private sector is a critical actor in helping drive the green transition, and some private sector players have already begun taking significant steps to decarbonize. Such actions could be accelerated and amplified in the private sector at large through a business environment designed to facilitate green growth. This report examines why and how firms leading in sustainability have successfully integrated climate and sustainability into their business strategies, practices, and models (i.e., ‘green growth’), and explore how their experiences and recommendations – coupled with policy analysis – can inform policymakers, donors, as well as other international organizations or foundations on how to best support business environment reform and policy development for green growth.

Key Learnings

Companies leading in green growth practices identified five business mechanisms as particularly influential for green growth:

- **Carbon price.** Pricing carbon can incentivize green growth, lead to lower emissions, and generate funds to support research and development (R&D) into low- and no-carbon alternatives. Current pricing levels in existing carbon markets – which are far too low to reap these benefits – and carbon leakage need to be addressed for a carbon price to be effective. As well, care should be taken to ensure that small- and medium-sized enterprises are not priced out the market, and receive necessary support to ensure a just transition of their businesses.
- **Tax credits and subsidies.** Tax credits de-risk climate investments by the private sector, thereby scaling climate funding. They also make green investment good business, which leads to an overall ‘greening’ of the marketplace. Subsidies, depending on how they are utilized, can be a powerful mechanism for green growth, or conversely, can hinder it.
- **Research & Development (Innovation).** Public R&D funding reduces barriers to green innovation and unlocks additional private sector investment. It also has the potential to promote both green development and green growth simultaneously.
- **Infrastructure.** Supportive infrastructure is a key component of green growth, for example with systems like recycling critical to facilitating a circular economy and renewable energy (RE) availability a precondition to reducing Scope 2 emissions.
- **Targeted regulation.** Regulation that targets specific aspects of sustainability is also powerful – particularly standards, mandatory disclosure, and bans.

Role of the business environment in green growth

The business environment sets the rules and parameters in which business operates. The experiences of companies with leading green growth practices and analysis of instruments provide insights into the relationship between the business environment and green growth. While this study has found that the primary motivation driving progressive companies' greening activities is pressure from customers and investors, business environment reform is critical for ensuring that all businesses align with a green growth agenda.

Policymakers must first establish minimum sustainability standards to ensure a level playing field for business. Minimum standards require laggards to improve their practices, directly improving climate performance while also reinforcing the ambition of the private sector to continue to raise standards and accelerate green growth further.

Businesses – particularly large ones – with supply chains rooted deep in the Global South play an important role in facilitating the net-zero transition. They can do this through direct engagement and capacity building with their suppliers, as well as by sending strong demand signals in the marketplace that decarbonization is a prerequisite for doing business. Policy and investments that support these efforts provide a promising avenue for moving the needle on climate performance in the Global South.

Given the vast variation in industries, geographies, and business models in the private sector, there is no one best approach or even most influential policy type. Rather, the specific instruments and avenues are highly dependent on their context. Given the varied utility of instruments – for example, to incentivize versus disincentivize behavior – a mix of complementary policies is the most effective in facilitating green growth.

The green transition represents a distinct development opportunity. The scale of innovations and changes required means that thoughtful investment has the potential to promote both development and green growth outcomes. For example, development investments in supporting infrastructure and complementary systems – such as RE – have the potential to contribute to both development and green growth goals.

Recommendations for green business environment reform

The findings from this study point to several principles and practices for policymakers to consider as they approach business environment reform. These seek to highlight which reforms hold the greatest potential to promote and accelerate green growth, and how donor and development agencies can engage with governments and the private sector in green business environment reforms.

➤ Ensure a clear and consistent regulatory environment

Ensure clarity and stability in the regulatory environment

Businesses will make the greatest investments when their risk is lowest. **Clarity and stability in the policy environment** is a crucial risk factor, so policymakers should make long-term commitments to

policy positions and enabling investments. For example, avoid mandating companies to implement a particular type of pollution reduction technology just to drastically change the technological solution later. Endeavor to adopt policies and solutions that can persist over time, even as technologies and politics change.

Raise the floor through minimum standards

Companies want to play on a level field, so policymakers should bring everyone up to the same level by implementing **minimum standards**. This increases the performance of laggards while also indirectly supporting companies with leading green growth practices by reducing disparities between competitors and signaling that it is safe and even prudent to continue making investments in sustainability.

Unify standards and reduce regulatory fragmentation

The diversity and fragmentation across the variety of regulatory environments around the world create operational challenges for business. This creates a race-to-the-bottom for jurisdictions that prioritize economic growth over green growth for areas like manufacturing, as well as a compliance challenge for issues like mandated reporting. The adoption of **aligned standards globally** creates a more navigable and predictable business environment to facilitate green growth.

➤ Create an ecosystem for green growth

Align investments with regulation

When developing and implementing business environment reform to accelerate the green transition, policymakers and donors should consider the system holistically to ensure that goals and requirements are consistent with the business environment. For example, if little to no RE is available to purchase, how can companies reduce their Scope 2 emissions? **Public investments need to align with policy requirements.**

Use regulations in a complementary way

To help create this ecosystem, policymakers and donors can utilize a combination of sticks and carrots by deploying regulation in ways that disincentivizes undesirable behavior (e.g., polluting) while also incentivizing good behavior (e.g., recycling). Policies have differing utility and should be used in complementary and mutually reinforcing ways.

Consider the role of national business systems

Creating an ecosystem for green growth often necessitates evolution of and investments in the underpinning **business systems**. Requiring companies to, for example, utilize a specified percentage of RE will only be possible if the infrastructure necessary to provide such capacity is available. Further, developing that infrastructure requires identifying and utilizing the technology needed to produce RE at necessary scale; a workforce trained in RE development and delivery; and a critical mass of service providers capable of delivering ubiquitous access. The policy changes necessary to successfully facilitate the green transition need to reach far beyond the direct regulation of business and – particularly in Official Development Assistance (ODA) countries – **be supported by developmental**

investments which evolve existing business systems to support the green transition. Underlying national business systems represent a particularly propitious area for donors and development agencies, who are uniquely positioned to invest in capacity building programs that develop and evolve systems towards a net-zero future.

Ensure a just and equitable transition to a global net-zero economy

In general, it is crucial that policymakers plan proactively for a green transition to ensure that the transition **to net zero is just and equitable, and that no one is left behind**. Small businesses may need specialized support and consideration to ensure that they are not left behind in the green transition. This might especially be true for under-resourced communities in the Global South, where producers may lack the resources necessary to innovate business models or production of goods and services. Experiences from and lessons learned in more mature markets can inform business environment reform in the Global South by offering insights to policymakers and donors on how to potentially ‘leapfrog’ investments in the Global South. Nonetheless, business environment reform must be contrived in collaboration with the affected communities to ensure that changes fully appreciate the local context, capabilities, and intersectional challenges, as well as identify and drive locally identified solutions.

➤ **Target business environment reform in high-impact areas for green growth**

Carbon pricing

Pricing carbon at levels sufficient to move the market is a key policy ask of leading businesses. This should be accompanied by the sunset of contradictory policies like fossil fuels subsidies. Donors and development agencies are particularly well-positioned to contribute to and help shape the burgeoning voluntary carbon market.

Mandated disclosure

Transparency is a powerful mechanism to ensure compliance and progress. Mandated disclosure requires companies to identify and track key climate metrics, a critical first step in reducing emissions. It facilitates target-setting by business and allows for stakeholders like investors and customers to hold them accountable. However, sustainability reporting is something that must be developed within a company – it cannot be implemented overnight – so experienced companies recommend a phased approach, which gradually builds reporting requirements over time.

R&D Investment

Radical innovation in the areas of RE, biofuels, agricultural practices, and many more is needed to ensure long-term sustainability and alignment with a 1.5°C ambition, and public funding is necessary to incubate, and scale needed solutions. Public investment often unlocks private investment, accelerating the overall greening of the marketplace.

Further questions and limitations

While this study generated significant insights into companies with leading green growth practices and their experiences and recommendations for policymakers for green growth, it also yielded questions for further investigation. Given the study's focus on learning from private sector green growth leaders, there follows an opportunity to better understand how their experiences and recommendations translate to middle-of-the-pack and lagging companies. Moreover, companies with leading green growth practices are disproportionately located in the Global North, and while every attempt has been made to highlight experiences of and takeaways for the development community, a deep dive study to further translate lessons to the Global South could provide additional clarity and direction. As well, focusing specifically on when during companies' net-zero journey policies might be most impactful could provide further depth and guidance, something not possible within the study's design. Finally, further exploration could focus on how green growth policies and regulations might be most effectively deployed either within weak regulatory environments, or in effort to help strengthen national institutions.

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Key terms and definitions

Companies leading on green growth practices refers to companies that have leading climate-related practices within their industry and/or geography. For the purposes of this report, some of the key criteria for assessing ‘leading green growth practices’ include alignment with the Science Based Target initiative (SBTi), having set a Science Based Target (SBT) in line with a 1.5°C pathway, as well as having implemented actions within their own business and their supply chain to support progress on climate commitments.

A green business environment reform refers to reforms (e.g., of subsidies, certifications and standards, tradable permit schemes) that encourages green growth in the private sector while supporting a just transition, including decent jobs and livelihoods for all.

Business environment is the combination of internal and external factors that shape companies’ operations.¹

Just transition is presented in the Paris Agreement, as being “a just transition of the workforce and the creation of decent work and quality jobs in accordance with nationally defined development priorities.”² It is a social justice imperative, securing livelihoods and enabling business in a greener economy, increasing skills development for all, and driving transition through social dialogue.³

Green growth means fostering economic growth and development, while ensuring that natural assets continue to provide the resources and environmental services on which our well-being relies.⁴

The Science-Based Targets initiative (SBTi) is a partnership between Carbon Disclosure Project (CDP), the United Nations Global Compact, World Resources Institute (WRI) and the World Wide Fund for Nature (WWF), which enables companies to set and validate science-based emissions reduction targets.

The Business Ambition for 1.5°C refers to the commitment to a SBT in line with the Paris Agreement 1.5°C target and net zero future.

Scope 1 emissions includes direct emissions from assets that are owned or controlled by the reporting company (e.g., greenhouse gas (GHG) emissions related to its own operations, like offices and factories).⁵

Scope 2 emissions refers to indirect emissions attributable to the company from energy used; electricity, heat, and steam purchased by the reporting company.

¹ Ioannou, I., Serafeim, G. What drives corporate social performance? The role of nation-level institutions. *J Int Bus Stud* **43**, 834–864 (2012).

<https://doi.org/10.1057/jibs.2012.26>

² ILO (2017) A just transition to a sustainable future – next steps for Europe. https://www.ilo.org/wcmsp5/groups/public/---europe/---ro-geneva/---ilo-brussels/documents/publication/wcms_614024.pdf

³ UNFCCC (2020) The Paris Agreement. <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>

⁴ OECD (n.d.) Green growth and Sustainable Development. <https://www.oecd.org/greengrowth/>

⁵ The Greenhouse Gas Protocol (2004) A Corporate Accounting and Reporting Standard – Revised Edition.

<https://ghgprotocol.org/sites/default/files/standards/ghg-protocol-revised.pdf>

Scope 3 emissions include all indirect emissions within a company’s value chain, both upstream and downstream.

Sustainability is often associated with meeting the needs of the present generation without compromising the possibility for future generations to meet their own. It is a balance between environmental, social and economic pillars.⁶

Net zero is defined by SBTi as a target that refers to achieving net-zero emissions in line with 1.5°C-aligned commitments. For a business, reaching net zero means reducing scope 1, 2 and 3 emissions to zero or close to zero while neutralizing from the atmosphere any remaining emissions in the target year and beyond.⁷

Environmental, Social and Governance (ESG) factors are used to evaluate the non-financial performance of a company in terms of sustainability, ethics, and governance.⁸

List of abbreviations

CBAM	Carbon Border Adjustment Mechanism
CDP	Carbon Disclosure Project
DCED	Donor Committee for Enterprise Development
EPR	Extended Producer Responsibility
ESG	Environmental, Social & Governance
ETS	Emissions Trading Systems
EU	European Union
EV	Electric Vehicles
FBA	Food, Beverage and Agriculture
GHG	Greenhouse Gases
ICT	Information and Communication Technology

⁶ WCED (1987) Our Common Future. Brundtland report. <http://www.un-documents.net/our-common-future.pdf>

⁷ Science Based Targets (2021) SBTi Corporate Net-Zero Standard. <https://sciencebasedtargets.org/resources/files/Net-Zero-Standard.pdf>

⁸ Bates Wells (n.d.) Impact Economic Glossary. <https://bateswells.co.uk/impact-economy-glossary/>

IMO	International Maritime Organization
NDC	Nationally Determined Contributions
ODA	Official Development Assistance
OECD	Organization for Economic Co-operation and Development
R&D	Research & Development
RE	Renewable Energy
SBT	Science Based Targets
SBTi	Science Based Targets Initiative
SDG	Sustainable Development Goals
SiGP	Sustainable in a Generation Plan
TCFD	Task Force on Climate-Related Financial Disclosures
US	United States
WMB Coalition	We Mean Business Coalition

1. Introduction

The private sector drives growth, and policymakers craft the business environment which shapes and facilitates companies' practices. With the climate crisis intensifying, the private sector is increasingly taking action to align their practices with net-zero emissions and the Paris Agreement 1.5°C target.⁹ Companies are doing this across sectors and industries, and increasingly call upon governments to adopt more ambitious agendas to support the transition to a net-zero economy. For example:¹⁰

- 400+ companies calling on the US government to set the target of reducing emissions by 50% below 2005 levels by 2030.
- 200+ Chief Executive Officers calling on the European Union (EU) to increase the ambition of its members' Nationally Determined Contributions (NDCs); and,
- Nearly 180 companies calling on the Japanese government to cut emissions by 50% by 2030 from 2013 levels.
- 778 businesses, through a sign-on letter by the We Mean Business Coalition, urged G20 leaders to amongst others, commit to achieving economy-wide net-zero emissions by 2050 at the latest, ending coal-fired power generation by 2030 for advanced economies and 2040 for others, and putting a price on carbon.¹¹

These and other pledges highlight companies' appeals to regulators to take clear and decisive action to lead the global economy through the net-zero transition. Without a supportive business environment, the private sector will not be able to reach net-zero by 2050, a crucial deadline for avoiding the worst impacts of climate change. Regulators must implement business environment reform which stimulates and accelerates green growth and understanding the experiences and recommendations of companies leading in sustainability can help guide such reforms.

1.1. Purpose of the report

On behalf of the DCED, BSR has investigated the practices of firms leading in sustainability, and in particular, the role of the business environment in shaping their ambition and activities. This report is a follow-up study to the 2017 DCED's study: *The search for synergy: Business Environment Reform and Green growth; A practical guide for policy practitioners*, which identified the potential for synergies between business environment reform and green growth.¹² To create business environments that encourage private firms to transition towards more sustainable business practices and models, this study

⁹ The Guardian (2021) The truth behind corporate climate pledges. <https://www.theguardian.com/environment/2021/jul/26/climate-crisis-green-light>

¹⁰ WMB Coalition (2021) All in for 2030 Accelerating Action. Halving Emissions. <https://www.wemeanbusinesscoalition.org/building-a-net-zero-world/>

¹¹ WMB Coalition (2021) COP26: Businesses Urge World Leaders to Keep 1.5°C Alive. <https://www.wemeanbusinesscoalition.org/g20-2021/>

¹² DCED (2017) The search for synergy: Business environment reform and green growth A practical guide for policy practitioners. https://www.enterprise-development.org/wp-content/uploads/GGWG_BERGuide_Final.pdf

set out to better understand the incentives and disincentives that affect those business decisions. Specifically, this study explores why and how leading firms across industries have successfully integrated climate and sustainability into their business strategies, practices, and models (i.e., ‘green growth’), and how their experiences and recommendations can inform business environment reform for green growth. This report is intended to inform donors, policymakers, foundations, and others on how they might directly or indirectly support business environment reform and investments that can facilitate and enable decarbonization journeys, curb harmful environmental impacts, and promote green innovation.

1.2. Research Approach & Limitations

The private sector stands as the hub for innovation, including in areas of sustainability. Understanding the motivations for and experiences of companies leading in climate action can help inform business environment reform for green growth. Companies leading in sustainability have the most experience with devising and scaling green growth activities, and thus, serve as the focal point for this study. The research focuses on identifying and analyzing the policy instruments most influential in shaping green business practices and developing recommendations for how to accelerate green growth through an enabling business environment.

This qualitative study does so, in part, by profiling five companies with leading sustainability practices and one private sector coalition focused on driving the green transition as case studies for green growth (criteria selection is discussed below). As with any large company, those selected as case studies may still have progress to make but are, in their respective industries or countries, on the leading edge of climate practices and ambitions, and as such are considered ‘companies with leading green growth practices’ for the purpose of this study. The study investigates their leading climate practices specifically, and the influence of particular policies or regulations on their ambitions and actions. Taking the lead from the profiled business organizations, the study identifies which instruments have been the most influential and analyzes how they might be best utilized to promote green growth. It then takes both the experiences and analysis and provides reflections and recommendations about what these learnings mean for policymakers seeking to accelerate green growth. By explicating their experiences and recommendations, this report offers a private sector point of view to policymakers on green growth.

While the research design suits the purpose of this study well, it is not able to address all related issues or questions. By design, the study investigates companies with leading green growth practices to learn specifically from their practices and progress over time; however, this means that the motivations and experiences of middle-of-the-pack and laggard companies remain empirically unexplored. Moreover, this has resulted in the study focusing on large, multi-national companies that have had the resources and experience to accelerate their green growth and share how public policy has impacted it. The study did attempt to identify small- and medium-sized companies to take part in the study, but given their vast diversity coupled with the climate criteria used to benchmark companies (e.g., having an SBT) it was decided to retain the focus on large multi-nationals. Therefore, the overall findings of this study remain

focused on translating how the experiences and recommendations of companies with leading green growth practices can inform business environment reform aimed at accelerating green growth.

Also, given the focus on companies with leading green growth practices, many of the firms and their practices are centred in the Global North. Indeed, potential interviewees from the Global South declined to take part in the study because they were concerned that they were not advanced enough to provide concrete examples, reflections and recommendations on green growth. So, while the report does seek to extrapolate lessons learned for the Global South, this study does not focus on the experiences of or implications for ODA countries specifically. However, while most of the study's participants are headquartered in the Global North, they have extensive supply chains in the Global South. Thus, they were interviewed about their experiences driving their sustainability strategy throughout their value chain, thereby informing broader business environment reform in the Global South. Finally, for the Global North companies profiled, it is important to contextualize their experiences in these types of regulatory environments; the utility and performance of policies may differ in weak institutional environments. While every attempt has been made to ensure the study's usefulness to development agencies, there are inherent limits dictated by the study's scope. The focus of this study is limited to climate and the green transition, in keeping with the Organization for Economic Co-operation and Development's (OECD) definition of 'green growth'. 'Green growth means fostering economic growth and development, while ensuring that natural assets continue to provide the resources and environmental services on which our well-being relies.'¹³ While social issues related to green growth or green transformation are important concerns and should be considered in policymaking and development investments, these are outside the remit of this study. Thus, this paper is limited to exploring companies with leading green growth practices and their perspectives on policies that can advance green performance, and further research could explore the social implications and considerations of the policy recommendations.

1.3. Outline of the Report

The report is structured in four main sections:

- Section 1: **Introduction**. This section of the report outlines the background of the study, as well as providing an overview of the organizations interviewed.
- Section 2: **Private Sector Leading in Green Growth Practices**. This section presents mini case studies of the history of companies with leading green growth practices and their efforts on sustainability, paths towards green activities, motivations for action, and how public instruments and the business environment influenced their green growth practices.

¹³ OECD (n.d.) Green Growth and Sustainable Development. <https://www.oecd.org/greengrowth/>

- Section 3: **Key Business Environment Instruments for Green Growth.** This section analyzes the five types of public instruments cited by the study's companies' as most influential: 1) Carbon price, 2) Tax credits and subsidies, 3) Research & Development (R&D), 4) Infrastructure and 5) Targeted regulation. The experiences of companies with leading green growth practices with these instruments are accompanied by in-depth desk research to derive an analysis of the effectiveness and potential of these types of instruments, as well as how they might impact companies differently depending upon their industry, geography or maturity.
- Section 4: **The Role of the Business Environment in Green Growth.** This section brings together findings from both the company case studies (Section 2) and instrument analysis (Section 3) to consider what the totality means for policymakers seeking to accelerate green growth. This includes discussion of the role of both the public and private sector in promoting green growth, the importance of policies vis-à-vis one another, and the potential implications and consequences of policies and trends on the Global South.
- Section 5: **Recommendations for Green Business Environment Reform.** This section provides practical advice and recommendations for policymakers seeking to accelerate green growth. It discusses the potential impacts of different kinds of instruments and suggests priorities for development policymakers to accelerate the net-zero transition.
- Section 6: **Further Questions & Limitations.** The report wraps up by reflecting on its limitations, as well as the outstanding questions for further investigation.

1.4. Criteria for Selection

Organizations selected for the interviews were chosen according to their alignment with the following criteria:

- Leading green growth practices – The firms and organization chosen for this study were selected first and foremost because of their leading climate practices within their industry and/or geography. While they still have progress to make – as with virtually any company – those selected have made commitments to climate action and have undertaken leading climate action in their industries and/or geographies. All companies profiled in this study have set an SBT, and the most ambitious also join the Business Ambition for 1.5°C.
- Geographic diversity – The selected sample spans 6 countries, allowing for an investigation of how firm home-country policies might affect their greening efforts as part of a global business and across their supply chains.
- Sector representation – Different sectors have vastly different supply chains, regulatory environments, customers, and markets. Three different sectors have been selected to understand how different sectors navigate greening in their industry.

- Global North and Global South representation – Companies headquartered in the Global North and Global South are subject to different regulatory structures, cultures, and norms. The selection of two companies from the Global South¹⁴ and four from the Global North can help provide insight into how companies based in different business environments navigate and approach greening. The companies selected are all large multinational corporations that operate in a range of different countries and can provide insights more broadly across geographies. Moreover, given the companies’ sizes and expertise, there exists significant opportunity for knowledge transfer between countries of operation, as well as potential for these companies to influence national policies in the geographies they operate in.

The focus of the interviews was to understand the companies’ history with sustainability, their path towards green activities and in particular, the role of public instruments in shaping their actions or strategies. An overview of the organizations interviewed and their green growth activities is detailed in Table 1, providing an overview of the company size, countries of operation, focal green activities, alignment with the SBTi and Business Ambition for 1.5°C. Companies are reviewed for alignment with the SBTi as it is a way to assess their level of ambition and potential progress. Thus, if they have science-based targets, they would be more likely to have experiences or considerations on public instruments to facilitate achieving green growth. The companies are also reviewed on whether they have committed to and set a SBT in line with a 1.5°C and net-zero future, as this further determines climate leadership, with the most ambitious having joined the Business Ambition for 1.5°C.

<i>Name, Sector & HQ</i>	<i>Size</i>	<i>Countries of Operation</i>	<i>Focal Green Activities</i>	<i>Alignment with SBTi Business Ambition for 1.5°C</i>
Charoen Pokphand Group, FBA, Thailand	More than 200 subsidiaries Employment: over 300,000 people	China, Thailand, India, Cambodia, Laos, and Myanmar	Renewable energies (RE) Helping farmers and communities to adopt green growth practices.	SBTi: Yes Business Ambition for 1.5°C: Yes

¹⁴ Global south encompasses a list of countries defined by the United Nations Economic and Social Council (ECOSOC). http://www.fc-ssc.org/en/partnership_program/south_south_countries

Maersk, Transport & Logistics, Denmark	More than 700 subsidiaries Employment: 83,000 people (2020)	130 countries	Sustainable fuels development Carbon pricing	SBTi: Yes Business Ambition for 1.5°C: Yes
Mars, FBA, USA	4 business segments Employment: 130,000 people (2020)	80 countries	Carbon pricing Renewable energies (RE) Extended producer responsibility (EPR) Recycling infrastructure	SBTi: Targets set Business Ambition for 1.5°C: Yes Committed to reducing absolute Scopes 1, 2 & 3 GHG emissions 27% by 2025 and reach net-zero by 2050 from a 2015 base-year (aligned with 1.5°C)
Tech Mahindra, ICT, India	8 subsidiaries from Mahindra Group Employment: 125,236 people (2020)	Over 100 countries	Renewable energies (RE) Internal carbon pricing	SBTi: Targets Set Business Ambition for 1.5°C: Yes Committed to reducing absolute Scopes 1 and 2 GHG emissions 22% by 2030 and 50% by 2050, from a 2016 base-year (aligned with 2°C)
Ericsson, ICT, Sweden	4 subsidiaries Employment: 101,624 people	180 countries	Life Cycle Analysis and products' impacts Digitalization	SBTi: Targets set Business Ambition for 1.5°C: Yes Committed to reducing absolute Scope 1 and 2 GHG emissions 35% by 2022 from a 2016 base year (aligned with 1.5°C)

We Mean Business Coalition, Nonprofit Coalition, Global	More than 60 partners Employment: more than 30 people Represents more than 2,000 businesses	/	Leverage business action for greater policy ambition Guide businesses towards climate leadership	Endorse a 1.5°C aligned SBT Partner to SBTi and the UN Global Compact in leading the Business Ambition for 1.5°C
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Table 1. Overview of the study's case organizations.

1.5. Company Descriptions

In this study, five companies which have adopted certain sustainable business practices and one private sector coalition committed to climate action were interviewed.

C.P. Group

The Charoen Pokphand Group (C.P. Group) is a Thai conglomerate based in Bangkok. It is Thailand's largest private company and one of the world's largest conglomerates. It owns controlling stakes in Charoen Pokphand Foods, the world's largest producer of feed and shrimp, and a global top three producer of poultry and pork, among other agricultural produces.

C.P. Group is committed to reaching net-zero by 2030. The group has set an SBT, and is deploying strategies based on circular economy, Nature-Based Solutions and energy efficiency to achieve its goals.

Maersk

Maersk is a Danish integrated shipping company based in Copenhagen. It is active in ocean and inland freight transportation and associated services such as supply chain management and port operation. Maersk has been the largest container shipping line and vessel operator in the world since 1996.

Maersk has set a SBT and has an ambition to have net-zero emissions from operations by 2050. The company aligns its commitments with the International Maritime Organization's (IMO) strategy and the United Nations Sustainable Development Goals (SDGs).

Mars

Mars Incorporated is an American multinational manufacturer of confectionery, pet food, and other food products, as well as a provider of veterinary services. It was ranked as the 6th largest privately held company in the United States (US) by Forbes.

Mars launched its Sustainable in a Generation Plan (SiGP) in 2017 to address environmental and social aspects of the company including climate change and its linked impacts. The company has set a SBT to reach net zero of its Scopes 1 and 2 emissions by 2040 and to reach net zero for all emissions by 2050,

building on earlier commitments to reduce emissions for Scopes 1, 2, and 3¹⁵ by 67% by 2030 and to cut emissions in its full value chain by 27% by 2025 from a 2015 base-year.

Tech Mahindra

Tech Mahindra is an Indian multinational company that provides Information Technology and Business Process Outsourcing services. Tech Mahindra has a clear focus on leading ESG globally, enabling rural prosperity and enhancing urban living, with a goal to drive positive change in the lives of communities and stakeholders to enable them to rise.

Tech Mahindra has consistently emerged as a leader in sustainability and is recognized amongst the '2021 Global 100 Most sustainable corporations in the World' by Corporate Knights. Tech Mahindra has joined Business Ambition for 1.5°C, is part of the 1.5°C Supply Chain Leaders, has its emissions approved by the SBTi and is committed to becoming carbon neutral by 2030 and net zero much before 2050.

Ericsson

Ericsson is a Swedish multinational networking and telecommunications company headquartered in Stockholm and is one of the leading providers of Information and Communication Technology (ICT) to service providers.

In 2019, Ericsson set a net-zero target for their own operations by 2030. The company was an active contributor to the SBTi and the development of a 1.5°C aligned trajectory for the ICT sector, which encourages other ICT companies to set 1.5°C targets and support a faster decarbonization of the sector. This work is performed in collaboration with the International Telecommunication Union, Global System Mobile Association and Global Enabling Sustainability Initiative. Ericsson was also an active lead partner with other leading organizations in the development of the Exponential Roadmap that was launched in conjunction to the UN Climate Action Summit in 2019 as well as in 2018. Most recently, Ericsson has contributed to the International Telecommunication Union (ITU) standard for net zero.

We Mean Business Coalition

We Mean Business (WMB) Coalition is global nonprofit coalition representing more than 2,000 of the world's most influential businesses to take action on climate change. Their goal is to catalyze business and policy action to halve emissions by 2030 and accelerate an inclusive transition to a global net-zero economy by 2050.

A key role of WMB Coalition is to drive policy ambition and action by leveraging the business voice. Together, leading businesses and governments can create positively reinforcing ambition with government policies that give clarity and confidence to business to invest decisively in net-zero solutions. These Ambition Loops help accelerate the transition to a net-zero economy. The collaborative partnerships characteristic of WMB Coalition enables them to understand policy needs across industries

¹⁵ Scopes 1, 2 and 3 are described in 'Key Terms & Definitions'

and geographies, develop policy asks that work for business, and advocate and campaign for ambitious policy solutions to accelerate climate action.

2. Private sector leading green growth practices

The private sector plays a key role in driving green growth globally, as companies and investors can promote green supply chains, prioritize green investments, and drive innovation in green technologies. The insights from companies with leading green growth practices about their motivations - including how the business environment has influenced their actions – can provide valuable input to policymakers and the donor community on how the business environment can best be reformed to facilitate green growth more effectively.

This section of the report highlights key findings from each of the organizations interviewed. It outlines companies' history with sustainability, an overview of their current sustainability actions, and an account of their journey and challenges.

2.1. C.P. Group

Motivation Driving Green Performance

C.P. Group has a long history of working on sustainability, which according to the company started 100 years back and was motivated by demonstrating its responsibility to consumers.

Climate Commitments

C. P. Group began setting climate goals – initially a 10% reduction in carbon intensity – and progressively worked to integrate additional issues such as circular economy. As sustainability became an issue of global interest, C.P. Group progressed its efforts to align with prevailing standards and commitments. The company now has a SBT to become net zero across Scopes 1 and 2 by 2030, and net zero across all Scopes by 2050, in alignment with a 1.5°C ambition. C.P. Group also strives to reach 85% RE usage within the next 10 years.

According to C.P. Group, it is expected of them to report progress on climate performance in accordance with established goals, such as the SBTi and the Task Force on Climate related Financial Disclosure¹⁶. However, the company claims that targets and language from sustainability standards and frameworks such as these help them align on expectations internally. Furthermore, public disclosure on sustainability helps provide transparency, measurement, and data for internal use as well, facilitating a better understanding of impact and effects.

Green Activities

Most of C.P. Group's emissions are in its value chain, and thus are Scope 3 emissions. The company addresses these by providing multiple types of support to farmers from whom they procure their inputs. This includes supporting farmers with expertise and financial access to enable its contract-

¹⁶ C.P. Group (2020) Sustainability Report. https://www.cpgroupglobal.com/Portals/0/PDF/CPGSR2020_EN.pdf

farms to install biogas collection systems to capture methane emissions and use them for energy generation. Moreover, C.P. Group has developed raw materials for the production and development of animal feed formulas that has helped reduce CO₂ emissions and waste while meeting dietary requirements, contributing to animal growth and health, and helping animals digest food more effectively.¹⁷ C.P. Group also works with rice farmers to adopt new cultivation methods that better manage water and reduce methane emissions, as well as with farmers across the board to support installation of on-site RE.

Challenges

One of the net-zero challenges faced by C.P. Group is their Scope 2 emissions. This is largely due to insufficient clean energy infrastructure and lack of available RE in national grids. According to C.P. Group, the Thai electricity grid is powered primarily by carbon-heavy sources and RE comprise only 8% of the country's electricity supply.¹⁸

The company addresses this challenge via two corporate efforts: First, by aiming to reduce energy consumption per production unit by 15% in 2025 compared to the base year 2015, and second, by investing in its own RE projects. The RE projects include installing rooftop solar on 24 of its manufacturing plants and office buildings this year, as well as piloting solar at 16 pig farms.

Public Policy and Regulation to Support Green Growth

For C.P. Group, corporate sustainability measures have been necessary in the absence of strong, public regulation. However, C.P. Group believes that public policy and regulation can support companies in their green growth, namely by establishing regulation and standards that all companies should adhere to, as well as by offering support for companies to put policy requirements into practice. This is especially helpful if it is aligned across geographies and jurisdictions, so that companies do not have to develop separate strategies for each location the company operates in to ensure compliance, as is often the case now.

China's Coal Reduction Policies

China is the second largest market for C.P. Group by sales revenue.¹⁹ C.P. Group highlights China's commitment at large to phase down coal as an example of a policy that supports the company's aspirations, as it aligns actors and facilitates an environment transitioning away from coal. C.P. Group underscored that the absence of such policies in some countries – such as Thailand – is a barrier to success. C.P. Group's experiences highlight how the regulatory environment shapes the type of solutions and level of ambition and investment necessary to make progress on green goals.

¹⁷ C.P. Group (2020) Sustainability Report. https://www.cpgroupglobal.com/Portals/0/PDF/CPGSR2020_EN.pdf

¹⁸ US EIA (2017) Country Analysis – Thailand. <https://www.eia.gov/international/analysis/country/THA>

¹⁹ C.P. Group is one of the leading agri-food players in China

2.2. Maersk

Motivation Driving Green Performance

Maersk's green growth strategy has transformed over the last decade, reflective of their evolving motivation and positioning on sustainability. Starting with the first phase of their focus on climate action from 2009 to 2018, the climate strategy was motivated by commercial values and synergies between improving sustainability and finances. This phase was characterized by efficiency measures designed to reduce fuel consumption, as saving fuel was better for both the environment and their bottom line.

However, by the end of the last decade, Maersk had reached a point where they improved the technical efficiency of ships as much as possible, meaning further and different action would be necessary to continue achieving emissions reductions. This led to a change in Maersk's approach to climate action, viewing reaching net zero as critical to ensuring long-term business resilience as well as meeting customer and investor demands. Indeed, ensuring business stability and meeting stakeholders' expectations prove to be greater drivers of climate action than the regulatory environment.

Climate change, more specifically the risk of not decarbonizing our end-to-end supply chain at a speed that matches our customers' and investors' expectations, was in 2020 confirmed by our executive leadership as one of the top enterprise risks to the company.

Source: Maersk, Sustainability Report (2020)²⁰

Maersk concluded that it wanted to be a leader in sustainability, not just responding to consumer demands but in actively creating demand for net-zero logistics in the marketplace. Its ambition is now to lead customers into more sustainable behavior and solutions rather than simply responding to customer demands.

Climate Commitments

Maersk has committed to net zero across the entire business and supply chain by 2040, including providing 100% green solutions for their customers. Maersk has set a SBT to decrease emissions by 50% by 2030 from the 2020 baseline. The trajectory aims to have a minimum of 25% of ocean cargo transported with green fuels, 90% green operations for contract logistics and cold chain, and 30% of air cargo transported with sustainable aviation fuel by 2030.²¹

Green Activities

Maersk has been working with its climate performance and decarbonization of its operations for over a decade. Maersk has succeeded in reducing fuel consumption substantially through efficiency

²⁰ Maersk (2020) Sustainability Report. <https://www.maersk.com/about/sustainability/reports>

²¹ Maersk (2022) 2021 Sustainability Report. <https://www.maersk.com/sustainability>

measures. The company has created eco-delivery products, and it is issuing green bonds and investing in green methanol vessels.

Maersk is also working with other organizations including the IMO to improve sustainability of shipping and to advocate for fuel taxes for development of sustainable fuels.

Challenges

The availability and viability of sustainable shipping fuels is one of the key challenges faced by Maersk, where the company believes that public policies have not been adequate in facilitating the development of more sustainable fuel sources. According to Maersk, large investments are needed to develop and scale sustainable fuels, a task no company will be able to undertake singlehandedly. Instead, Maersk believes that policymakers have an important role to play in pushing as well as supporting the industry in developing greener alternatives.

Public Policy and Regulation to Support Green Growth

Policymakers Should Raise the Floor for Climate Performance

Maersk's desire to be a sustainability leader means that its efforts put it far ahead of most regulatory requirements, which typically specify the 'floor' rather than the 'ceiling' in climate action. Contrary to many companies, Maersk's sustainability orientation means it plays an active role in trying to persuade policymakers to raise the floor by implementing more climate-oriented policies and regulation, thereby pushing other companies to become more sustainable.

Carbon Tax: An Opportunity to Generate Funding for Sustainable Fuel Innovation

Specifically, Maersk advocates for a carbon price, which can reduce fuel demand while also generating funding for necessary innovations, such as new fuels. It has lodged its recommendations with the IMO, advocating for it to adopt a carbon tax. Maersk advocates for a fuel tax of \$150 per ton fuel, which could provide substantial funding for research and innovation. However, while the company believes strongly that a carbon price is necessary to transition from fossil fuels to renewables, they are skeptical that a global carbon price will be a reality within the next couple of years.

2.3. Mars

Motivation Driving Green Performance

The motivation for Mars to improve its climate performance is multifaceted. First, Mars is a family-owned and privately held company, and the family wants to leave a healthy and thriving business that addresses its impact in the world. Furthermore, for Mars, there are additional drivers for implementing their Sustainable in a Generation Plan which precede policy drivers, including management of risk; security of supply; as well as attraction and retention of talent.

Climate Commitments

Mars strives to decrease GHG emissions by 60% by 2030, and to become net zero by 2050, which builds on earlier commitments of 100% RE and net zero by 2040 for direct operations. Mars will be

restating their 2030 goal as part of the new roadmap in late 2022. Mars is also working to eliminate deforestation from its supply chain and scale up its initiatives to promote sustainable and regenerative agriculture.²²

Green Activities

Sustainable Supply Chains

Mars began its sustainability journey a decade ago with an ambition to translate science into business. One of the first major areas of impact the company identified was the upstream impacts linked to their supply chains spanning multiple countries. So, Mars embarked on a strategy to target the highest-impact and highest-risk²³ ingredients in their supply chain – cocoa, coffee, tea, fish, and palm oil – seeking to source certified and traceable products. By seeking certified products, Mars both encouraged farmers to adopt more sustainable practices so that farmers could have their products certified, as well as sent a strong message globally about the importance of supply chain sustainability.

Driving Change through the Full Value Chain

Mars has initiated different programs, including the Pledge for Planet program and the Supplier Leadership on Climate Transition program, to support and encourage suppliers to calculate their GHG footprints and set an SBT.

Sustainable in a Generation Plan (SiGP)

Mars launched the SiGP in 2017 to address the environmental and social impacts of the company, with a focus on climate change and its linked/related impacts. SiGP is a set of three interconnected ambitions that are the essential drivers of sustainable growth. Taking place under three key areas: (1) Healthy Planet, (2) Thriving People, and (3) Nourishing Wellbeing.

Renewable Energy

Mars uses 100% RE for its direct operations in 11 countries, accounting for more than 54% of its electricity needs. Moreover, Mars plans to switch operations in 8 more countries to RE by 2025.

Challenges

While GHG reduction and improving climate practices provide many challenges for companies leading on climate practices, Mars highlighted insufficient infrastructure as relevant for policy makers and donors to consider when striving to facilitate green growth. Mars has set ambitious packaging goals but sees the lack of recycling infrastructure as an impediment to achieving these. Mars emphasizes that local recycling infrastructure plays a critical role in whether and how consumers recycle or reuse packaging. Moreover, according to Mars, infrastructure to a large degree dictates the types of materials that can be recycled as well as the recycled materials available on the market. For example, the recycling infrastructure is more mature in Europe than the U.S. and the supply chain of food grade recycled resins is less developed in many markets, including the U.S.²⁴ This impacts

²² Mars (n.d.) Land use position statement. <https://www.mars.com/about/policies-and-practices/land-use>

²³ Highest-impact and highest-risk refers to Mars' evaluation of what sourcing of ingredients contains the highest risk or impact to sustainable performance. For example, cocoa and palm oil are among the ingredients identified as most at risk for driving deforestation.

²⁴ Mars does have good food grade packaging of recycled content for PET in the U.S., but not in other critical resins.

Mars' operations and plans for green initiatives, leading the company to pilot a product sold in recyclable packaging in Germany, where food grade recyclable packaging materials are available.

Public Policy and Regulation to Support Green Growth

Investments in Recycling Infrastructure are Necessary

Following the points above, a principal policy request from Mars is for governments to invest significantly in recycling infrastructure. As stated on its website: *'To advance a future where packaging never becomes waste, we need the recycling and regulatory environment to evolve in significant ways.'*²⁵

Public Goals can Push Climate Policies to be More Ambitious

Mars believes that both public goals and policies play an important role in influencing private sector green growth. Public climate goals, for example, can facilitate more ambitious climate strategies because businesses often seek to anticipate regulation. Mars itself experienced this dynamic in the U.S. when ambitious public goals on RE encouraged them to increase the scale of their RE plans. To do so, it partnered with others to develop a wind farm project in Texas that at the time produced enough capacity to account for their entire U.S. electricity footprint. They have since replicated this program with a new project in Illinois that also includes suppliers and is inclusive of the growth of the business.

Tax Credits for Renewable Energy Facilitates Transition

Some policies can be even more influential, such as the tax credits for RE development. Together with the 20-year power purchase agreement that Mars offered RE developer partners, tax credits de-risked investments for RE developers. Even when these policies weren't directed at Mars specifically, they helped facilitate the development of RE in the marketplace, thereby enabling Mars to make progress on its goals, demonstrating the powerful chain effect of targeted policies. Further to recommending tax credits for RE development for electricity, Mars would also like to see these policies extended to renewable thermal energy and has worked with partners such as WWF to start the Renewable Thermal Collaborative.

2.4. Tech Mahindra

Motivation Driving Green Performance

Tech Mahindra started its sustainability journey motivated by the idea that society needed leaders to structure the path towards better practices, in part as a response to the government's call for climate action amongst businesses. The company then set an ambition of being among the top three most sustainable companies in India, and among the five most sustainable in the world. Tech Mahindra devised goals and targets towards sustainability and aligned their leadership with sustainability goals.

²⁵ Mars (n.d.) Plans for more sustainable packaging. <https://www.mars.com/sustainability-plan/healthy-planet/sustainable-packaging>

Climate Commitments

On climate, Tech Mahindra has joined the Business Ambition for 1.5°C and is part of the 1.5°C Supply Chain Leaders. To achieve its climate objectives, the company focuses on increasing its RE content in their energy mix – with a goal of 50% by 2025 -- and on responsible business growth and resource efficiency.

Green Activities

Tech Mahindra has created its own internal carbon price of US10\$ per ton of CO_{2e} that is applied on all their business units. The funds generated are put towards green investments. The company determined the price by first mapping their investments towards emission reduction activities and further by mapping their initial ratio of annual green investments compared to overall emissions. Thanks to the estimation and disclosure of their emissions since 2007, the company has been able to analyze data and publish it in its sustainability reports. Tech Mahindra also opted to map out several abatement solutions to assess the additional investments necessary to lower emissions and plot the maximum price that would be incurred per ton of emissions. This led to a final price of US10\$ per ton of CO_{2e}.²⁶

Tech Mahindra has integrated climate action within its business, and is developing technological solutions to solve sustainability issues, helping it and its customers accelerate towards a low-carbon economy. Tech Mahindra works in collaboration with its customers, partners and other stakeholders to build solutions that enable green growth.

Challenges

According to Tech Mahindra, the company has not experienced challenges due to public policy or regulation concerning environmental performance, likely due to the leading nature of its climate practices. Nonetheless, Tech Mahindra believes that for the green transition to succeed, governments need to support the broader transition to low-carbon usage and more sustainable business practices. The company also notes that the green transition will be very difficult for many players without some financial support for the implementation of green measures.

Public Policy and Regulation to Support Green Growth

Tech Mahindra advocates for a carbon price to create a pool of money to help fund the transition to more sustainable practices.

Moreover, Tech Mahindra believes that mandated sustainability reporting is essential to advancing climate action. Reporting is useful for tracking progress, identifying trends as well as helping to develop future forecasts, marketing plans, guide budget planning and improve decision-making. And while Tech Mahindra has grown its experience and competencies around complex sustainability reporting, it recognizes that companies at the beginning of their sustainability reporting journeys may

²⁶ CDP (2020) Putting a price on carbon: Handbook for Indian Companies 2.0. pp42-43 https://www.greenfinanceplatform.org/sites/default/files/learning-resources/action/CDP_India_Second_Handbook_on_ICP.pdf

need time and practice to identify and evaluate key material issues, define key metrics, and disclose performance on ESG aspects.

2.5. Ericsson

Motivation Driving Green Performance

Ericsson has for a long time been highly motivated to lead by example. Another of the key motivational aspects for Ericsson's sustainability work has been to understand and address the impact of their products, as well as to understand their industry's carbon footprint. This work began more than 20 years ago, when the company conducted its first Life Cycle Analysis to understand the environmental impact of their products.

Climate Commitments

In more recent years, Ericsson has set a net-zero goal for their own operations by 2030 (Scopes 1 and 2). This includes an ambition of using 100% RE at its facilities by 2030. Moreover, Ericsson has joined the 1.5°C Supply Chain Leaders initiative, which is a group of large, multinational companies committed to supporting their supply chain partners to build resilience, set targets, and curb emissions. The initiative has an ambition that members set a target to be net zero by 2050, though Ericsson does not yet have an official end date.

Green Activities

Ericsson has sought to establish itself as a sustainability leader by understanding and addressing the specific challenges of the ICT sector to help lead industry-wide change. They are an active member of the 1.5°C Supply Chain Leaders, helping to lead the way for other businesses to decarbonize their value chains. More generally, Ericsson seeks to harness 'digitalization as a transformative enabler for climate action.'

Energy Efficiency

Furthermore, Ericsson focuses on enhancing the efficiency of their own operations through electric vehicles (EV) and energy efficient buildings.

Challenges

Ericsson experiences a high degree of regulatory fragmentation across jurisdictions, which makes it difficult to navigate how best to drive green growth. The fragmentation has led Ericsson to adopt sustainability strategies and practices at a global level, rather than aiming to meet minimal compliance in each market.

Public Policy and Regulation to Support Green Growth

Digitalization to Facilitate Net Zero

Ericsson believes that digitalization can help facilitate the net-zero transition through improved access to data, better quality data, and better tracking. The company calls for governments to enable digitalization and strengthen digital infrastructure, prioritizing the digital infrastructure as a main

infrastructure and not as something companies should do by themselves. Moreover, it is important to reduce digital gaps between countries.

Governments Should Lead by Example

Ericsson also believes that governments and municipalities need to lead by example, prioritizing green procurement to show the way forward.

Carbon Pricing to Enable Green Growth

Last, but not least, Ericsson believes that a carbon pricing would facilitate green growth. While Ericsson has been unable to implement an internal carbon price as of yet, it believes that carbon pricing and digitalization are critical to facilitating the green transition.

2.6. We Mean Business Coalition

WMB Coalition is a coalition of business-focused climate nonprofit organizations that work closely with companies to help them align with the 1.5°C ambition and transition to net zero. They catalyze businesses' own leadership to accelerate climate ambition, action, and accountability, and also leverage business to help advocate for government policy ambition and action to facilitate a green transition.

As a part of this, WMB Coalition engages with companies to join initiatives like RE100 and SBTi, emphasizing the importance of aligning targets with these initiatives and others, such as the Task Force on Climate-Related Financial Disclosures (TCFD) or GHG Protocol.

WMB Coalition prioritizes climate policy advocacy and communication by 1) where the biggest impacts can be made, according to climate science, 2) how it fits with the current political agenda of key geographies and international fora such as G7, G20 and COP, and 3) whether there is a legitimate business force willing to take action. In general, WMB Coalition is a strong voice for forward-looking businesses in calling on governments to set ambitious policy to facilitate and accelerate climate action.

Public Policy and Regulation to Support Green Growth

WMB Coalition's main asks of governments in support of just and resilient economies include to:

1. Commit to achieving economy-wide net-zero emissions by 2050 at the latest and reversing nature loss by 2030.
2. Put forward strengthened, high quality NDCs in line with a 1.5°C trajectory to halve global emissions by 2030.
3. Develop policies, implementation plans and laws across the economy that reach NDC and net-zero targets and are nature positive.
4. Develop policies that ensure a just transition that is fair, respects the needs of all people and countries, and builds a more inclusive economy

Furthermore, WMB Coalition is focused on a green energy transition, for which they believe public policy changes are crucial. Their priority policy asks internationally include, but are not limited to, removing fossil fuel subsidies permanently, phasing out financing of all types of fossil fuels and coal, committing to reaching 100% clean energy and power systems by 2040, and ensuring plans for a just transition of the workforce.

2.7. Summary of organizations' sustainability actions

Organizations	Motivation	Mentioned instruments	Recommendations
C.P. Group	Demonstrating responsibility to consumers	Direct regulation China's Coal Reduction Policy Subsidies Tax credit Mandatory disclosure	Ensure minimum standards on climate performance Offer support for companies to put policy into practice Align policy across geographies
Maersk	Synergies between sustainable and financial performance Ensuring long-term business resilience Meeting customer and investor demands Being a leader in sustainability	Fuel tax Carbon price Direct regulation Investment in R&D Subsidies	Ensure minimum standards on climate performance (implement climate-oriented policies and regulation) Implement a carbon tax or fuel tax to reduce fuel demand and generate funding for innovation in sustainable fuels
Mars	Addressing its impact in the world Risk management Security of supply Attraction and retention of talent	Carbon price Tax credit Direct regulation EPR	Invest in recycling infrastructure Set ambitious public climate goals Implement tax credits for RE and renewable thermal energy

Tech Mahindra	Become among top 3 most sustainable companies in India – top 5 in the world	Carbon price Mandatory sustainability reporting Direct regulation	Implement mandatory sustainability reporting
Ericsson	Motivated to lead by example Understanding the impacts of their products and the carbon footprint of their industry	Digitalization (infrastructure) Carbon price	Enable digitalization and strengthen digital infrastructure Lead by example – e.g., in procurement Implement a carbon price
WMB Coalition	Leverage business to advocate for climate policy	Standards Mandatory disclosure Infrastructure	Commit to net zero Align NDCs with 1.5°C trajectory Develop policies, implementation plans and laws across the economy that reach NDC and net-zero targets and are nature positive. Develop policies that ensure a just transition that is fair, respects the needs of all people and countries, and builds a more inclusive economy

3. Key business environment instruments for green growth

The organizations profiled indicated that certain business environment mechanisms are particularly influential for green growth. These include:

1. Carbon price
2. Tax credits and subsidies
3. Research & Development (Innovation)
4. Infrastructure
5. Targeted regulation

The organizations profiled indicated that certain business environment mechanisms are particularly influential for green growth. These include:

3.1. Carbon price

Carbon pricing, a public policy concept to place a fee or cap on greenhouse gas emissions, creates an incentive to emit less based on a ‘polluter pays’ principle. Carbon pricing comprises several instruments – most notably carbon tax and Emissions Trading Systems (ETS) – also referred to as a cap-and-trade system. Their definitions are provided below.

A **carbon tax** puts an external cost on GHG emissions or the carbon content of fossil fuels. Thus, the governing body ‘taxes’ companies for their emissions, setting a fixed price on emissions, while the reduction outcome is not defined.

Cap-and-trade, on the contrary, defines the reduction outcome by setting a cap on the total level of GHG emissions allowed. In this system, companies are allocated credits, and those that are low emitters can sell their extra allowances to larger polluters. This creates a supply-and-demand mechanism with a market price on emissions allowances while also striving to create an absolute emission cap.

Source: World Bank (n.d.)²⁷

3.1.1. Carbon pricing incentivizes green growth

Carbon pricing, including both taxes and caps, comes with both strengths and drawbacks. They provide a way to incentivize companies to focus on green growth without setting limitations or

²⁷ World Bank (n.d.) Pricing Carbon. <https://www.worldbank.org/en/programs/pricing-carbon#CarbonPricing>

directions on how to achieve it.²⁸ Since companies can determine how best to navigate carbon pricing, it is often seen to stimulate innovation of new and lower-emitting technologies and investing in research and development is generally incentivized by the additional costs of business as usual.²⁹ In 2020, more than 2,000 companies declared that they were either using or anticipating using carbon pricing in the course of the next two years.³⁰ Hence, these policy instruments encourage companies to look for alternatives and consider, for example, a transition to RE. Carbon pricing increases government revenues as well, revenue that can be used to support green growth for the net-zero transition, such as energy access or sustainable infrastructure.³¹

3.1.2. Carbon pricing can lower emissions

Carbon pricing has been linked to emissions reductions in a number of jurisdictions. In Europe, the ETS cap-and-trade scheme established in 2005 has reduced emissions from sectors covered by the scheme by over 35% since its creation. In the U.S., the Northeast Regional Greenhouse Gas Initiative – the US’s first mandatory cap-and-trade program for GHG emissions – saw emissions fall 16% further than the rest of the country since implementing the carbon pricing mechanism. California also implemented a cap-and-trade program in early 2012, which established an overall limit on GHG emissions from covered sectors and allowed them to trade GHG emissions allowances. The only economy-wide cap-and-trade program in the U.S., California’s goal was to establish the price signal needed to drive long-term investment in cleaner fuels and more efficient use of energy. In part due to this program, it achieved its 2020 target of lower emissions than 1990 levels in 2016 – four years early. Altogether, the various carbon pricing systems in place demonstrate the clear and direct effect they can have on reducing emissions.

3.1.3. Carbon prices are currently too low to effectively reduce emissions

However, a common point of criticism is that carbon prices are not currently high enough to be consistent with climate agreements, and therefore do not yet effectively reduce emissions. The High-Level Commission on Carbon Prices estimates that carbon prices of at least \$50-100/tCO₂ by 2030 are required to cost-effectively reduce emissions in line with the temperature goal of the Paris Agreement.¹⁸ Yet, according to the International Monetary Fund, the global average carbon price was just \$3/tCO₂,³² demonstrating the stark disparity between the science illuminating a 1.5°C or even 2°C pathway, and the reality of the policy environment. In addition to the need of increasing carbon prices, the World Economic Forum further emphasizes that “To ensure alignment of investment

²⁸ Baranzini et al. (2016) Seven Reasons to Use Carbon Pricing in Climate Policy. <https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2016/02/Working-Paper-224-Baranzini-et-al.pdf>

²⁹ Baranzini et al. (2016) Seven Reasons to Use Carbon Pricing in Climate Policy. <https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2016/02/Working-Paper-224-Baranzini-et-al.pdf>; OECD (2011) Tools for Delivering on Green growth. <https://www.oecd.org/greengrowth/48012326.pdf>

³⁰ World Economic Forum (2021) Shaping an Equitable, Inclusive and Sustainable Recovery: Acting Now for a Better Future. https://www3.weforum.org/docs/WEF_Shaping_an_Equitable_Inclusive_and_Resilient_Recovery_2021.pdf

³¹ Climate Transparency (2020) CLIMATE TRANSPARENCY REPORT Includes 2020 emissions data and projections, analysis of stimulus responses, and insights for a Greener Recovery. CORONAVIRUS RECOVERY COMPARING G20 CLIMATE ACTION AND RESPONSES TO THE COVID-19 CRISIS. <https://www.climate-transparency.org/wp-content/uploads/2020/11/Climate-Transparency-Report-2020.pdf>

³² IMF (2021) Five things to know about carbon pricing. <https://www.imf.org/external/pubs/ft/fandd/2021/09/pdf/five-things-to-know-about-carbon-pricing-parry.pdf>

decisions to climate goals and the SDGs, carbon pricing should be complemented by the phasing out of fossil fuel subsidies, which in practice act as a negative carbon price".³³

The Article 6 of the Paris Agreement around cap-and-trade continues to be in the center of the carbon price debate.

Article 6 of the Paris Agreement

Article 6 relates to carbon markets by 1) Providing an accounting framework for international cooperation, such as linking the ETS of two or more countries. 2) Establishing a central UN mechanism to trade credits from emissions reductions generated through specific projects. 3) Establishing a work program for non-market approaches, such as applying taxes to discourage emissions. An important attention should be paid to this ruling to ensure environmental integrity and avoid double counting and additionality.

Source: World Resources Institute (2019)³⁴

3.1.4. Carbon taxes can enable greater social efficiency

Carbon pricing can enable greater social efficiency, as the full cost of emissions are paid by the producers of pollution. Indeed, business organizations from across three continents are calling for a global carbon pricing strategy to create an 'effective and fair' system to discourage emissions and spur climate investments.³⁵ However, it can be extremely difficult to determine what tax level corresponds to the negative externality, as well as determining the amount of tax a given company should pay. Moreover, with the intention of reducing emissions significantly, the tax might need to be extremely high if the demand price is inelastic. In other words, the tax level needs to be sufficiently high that companies do not just factor in the additional costs of carbon tax while continuing business as usual. In these instances, a carbon tax is not only ineffective, but can disproportionately impact small businesses that do not have the same financial resources to pay new taxes or change their business models.

In addition, carbon taxes can raise revenues that can be spent on mitigating negative effects of pollution or funding green investments.³⁶ Several of the companies interviewed mention carbon pricing as an opportunity to raise funds to transition to low-carbon emissions, discussed in the R&D section below.³⁷

³³ World Economic Forum (2021) Shaping an Equitable, Inclusive and Sustainable Recovery: Acting Now for a Better Future. P.24. https://www.weforum.org/docs/WEF_Shaping_an_Equitable_Inclusive_and_Resilient_Recovery_2021.pdf

³⁴ Kizzier K. et al. (2019) What You Need to Know About Article 6 of the Paris Agreement. *World Resource Institute*. <https://www.wri.org/insights/what-you-need-know-about-article-6-paris-agreement>

³⁵ Edgecliffe-Johnson a., Hollinger P. (2021) Businesses rally behind global carbon pricing strategy. *Financial Times*. <https://www-ft-com.ezp.lib.cam.ac.uk/content/517bd16b-fb1c-4448-9ec0-8bf9152caa17>

³⁶ OECD (2011) Tools for Delivering on Green growth. <https://www.oecd.org/greengrowth/48012326.pdf>

³⁷ Maersk and Tech Mahindra interviews

3.1.5. Carbon caps can reduce emissions over time

For these reasons, some policymakers and companies advocate for carbon caps rather than carbon taxes. Carbon caps facilitate another level of certainty over emissions levels, while also giving the option of gradually reducing the number of available permits over time.

The advantage of carbon caps is that companies get time to adjust and gradually reduce emissions, while the government sends a strong signal of intent, preparing companies for further reductions in permitted carbon levels. Nonetheless, if trading of carbon caps is possible, then emission permits would only increase in value, resulting in the same potential adverse effects for smaller companies.

We are supportive of an effective and transparent price on carbon, with safeguards that mitigate the costs on the most vulnerable communities.

Mars

Source: Mars interview (2021)

3.1.6. Carbon leakage threatens the effectiveness of carbon pricing

For carbon pricing to be effective, ‘carbon leakage’ needs to be addressed. Carbon leakage is when companies choose to relocate their production to countries that do not have these schemes in place, thus outsourcing pollution.³⁸ In addition to perpetuating the climate crisis, leakage negatively impacts local communities who are subject to pollution associated with the relocated production. Leakage results in large part from companies’ quest for lower taxes and prices, fueling the race-to-the-bottom and creating an unlevel playing field for business. Fear of the negative economic impacts resulting from country jumping is a primary reason many countries are hesitant to implement carbon pricing. Used in complement with other policies and programs, Mars emphasized, *“It’s critical to ensure a carbon pricing scheme applies to as much of the economy as possible, to all sectors and countries, and that there is no leakage.”* Otherwise, leakage disadvantages businesses which continue to produce in locations that price carbon. The inconsistency of carbon pricing between jurisdictions and the resulting leakage is a major challenge for businesses oriented toward green growth.

³⁸ Rosenbloom, Markardb, Geels & Fuenfschillingd (2020) Why carbon pricing is not sufficient to mitigate climate change—and how “sustainability transition policy” can help. <https://www.pnas.org/content/pnas/117/16/8664.full.pdf>

How can leakage be addressed?

To address issues of leakage, the EU has proposed the Carbon Border Adjustment Mechanism (CBAM), throughout the EU Green Deal, that plans to put a carbon price on imports of a targeted selection of products so that ambitious climate action in Europe does not lead to ‘carbon leakage’. The CBAM is meant to run in parallel to carbon pricing on domestic industries. Designed in compliance with World Trade Organization rules and other international obligations of the EU, the CBAM system will work as follows: Under the CBAM, importers will buy certificates whose price would correspond to the carbon price they would have paid, if the goods had been produced in the EU. However, from 2023 to 2025, importers will only have to report emissions embedded in their goods (iron and steel, cement, fertilizer, aluminum, and electricity generation) without paying a financial adjustment, which will then apply from 2026 onwards.

Source: European Commission (2021)³⁹

An international carbon price would eliminate leakage, and is a policy supported by companies that are leading on green growth practices, who argue that the price should be reflective of its real cost.

How carbon price should be designed?

Ericsson encourages the implementation of a global carbon price, and Maersk suggests a global carbon price of \$150/metric ton of CO₂ by 2025 – an amount far higher than the guidelines of the High-Level Commission on Carbon Prices – demonstrating the desire of companies with leading green growth practices for a bold and ubiquitous carbon price. Unfortunately, while their ambitions are high, most companies are skeptical of policymakers’ ability and willingness to make it a reality.

Source: Rosenbloom, Markardb, Geels & Fuenfschillingd (2020)⁴⁰

³⁹ European Commission (2021) Carbon Border Adjustment Mechanism. https://ec.europa.eu/taxation_customs/green-taxation-0/carbon-border-adjustment-mechanism_fr

⁴⁰ Rosenbloom, Markardb, Geels & Fuenfschillingd (2020) Why carbon pricing is not sufficient to mitigate climate change—and how “sustainability transition policy” can help. <https://www.pnas.org/content/pnas/117/16/8664.full.pdf>

3.2. Tax credits and subsidies

Tax credits are a commonly used policy instrument that reduce one's tax bill, effectively corresponding to a dollar-for-dollar savings on eligible investments. They are also well understood and easy to utilize, making them an effective instrument for reaching a broad range of the market. Tax credits can encourage green growth in both direct and indirect ways.

Subsidies are a specified amount of money given by the government to help reduce the cost of an investment or product, often with the intent of enabling an industry or a business to keep the price of a product or service low.

Source: OECD (n.d.)⁴¹

3.2.1 Tax credits de-risk climate investments

First, and when targeted directly at individual businesses, tax credits reduce the costs and the risks of investment in green activities and do so in a variety of different ways. They can be used to incentivize specific actions by reducing their cost, such as encouraging businesses to invest in RE.⁴² For example, the Production Tax Credit Program and the Investment Tax Credit Program implemented in the US encouraged the construction of sustainable energy infrastructure such as solar and wind projects.⁴³ Tax credits used in this way support the transition by reducing the (often higher) initial costs associated with greener options or long-term investments for green growth. This support can be leveraged internally to help to make the internal business case for green investments, which are "de-risked" via the public institutions' support. Tax credits can also help scale new solutions by reducing the costs and risks of pioneering and rapidly scaling new technologies and solutions.⁴⁴

Tax credits used in these ways de-risk green investments and make them more financially attractive, incentivizing but not obliging participation. Tax credits can also be effective at spurring R&D by helping bring down associated costs and signal the viability of the end product. Overall, tax credits can be an effective way to reduce the costs and risks of greener options, and thus, encourage green growth.

How tax credits lower the risk for developers?

Mars spoke about how tax credits for RE developers played a role in the developers' ability to scale and remain price competitive and supports similar

Source: Mars interview (2021)

⁴¹ Definitions found on OECD Glossary of statistical terms (n.d.) <https://stats.oecd.org/glossary/index.htm>

⁴² Alex Muresianu (2021) How Expensing for Capital Investment Can Accelerate the Transition to a Cleaner Economy. <https://files.taxfoundation.org/20210112151505/How-Expensing-for-Capital-Investment-Can-Accelerate-the-Transition-to-a-Cleaner-Economy.pdf>

⁴³ Bryen Alperin (2020) INSIGHT: Tax Credit Investments Are Environmental, Social, and Governance Investments. <https://news.bloombergtax.com/daily-tax-report/insight-tax-credit-investments-are-environmental-social-and-governance-investments>

⁴⁴ World Economic Forum (2021) Shaping an Equitable, Inclusive and Sustainable Recovery: Acting Now for a Better Future. https://www3.weforum.org/docs/WEF_Shaping_an_Equitable_Inclusive_and_Resilient_Recovery_2021.pdf

3.2.2 Tax credits for green investments make for good business

Second, and indirectly, tax credits can help bring down long-term costs and enhance long-term profitability. By bringing down the direct costs associated with, for example, specific infrastructure investments within companies – like switching to more energy efficient equipment– tax credits can reduce the long-term costs of operations. As well, they can also enhance long-term profitability when they support the creation of greener offerings; for example, by reducing the costs and risks of developing carbon capture technology, a company can bring an in-demand product to scale in the marketplace, enhancing their long-term viability and profitability. Tax credits give financial incentives and opportunities to invest in and implement green technologies, which can be profitable for the business once implemented. Collectively, tax credits used in this way incentivize – albeit rather indirectly – the long-term viability of making green investments.

3.2.3 Tax credits can enhance the overall ‘greenness’ of the marketplace

Finally, and also indirectly, tax credits can enhance the overall ‘greenness’ of the marketplace in at least two ways. First, by encouraging green growth and investment in more direct ways, as above, greener options and alternatives become increasingly available in the marketplace. As noted by C.P. Group, the availability of RE in Thailand is extremely limiting in it achieving its Scope 2 goals. Thus, tax credits which encourage the development of additional RE in the grid facilitates the availability of sustainable options in the marketplace, benefiting businesses through improved access and lower costs. Second, tax credits can reduce the cost of greener options over conventional ones, nudging companies into making greener choices. Overall, tax credits can enhance the availability and price point of greener options in the marketplace, something critical for making the green transition.

3.2.4 Tax credits do not curb unsustainable behaviors

While tax credits are excellent at incentivizing certain actions, they are not effective at curbing undesirable behavior. For example, tax incentives may encourage and facilitate the expansion of RE, they do little to control or reduce existing emissions from polluting methods. Therefore, tax credits can help developers implement new RE systems but do not effectively encourage the modification and reduction of emissions from existing fossil fuel infrastructure. Moreover, conflicting tax incentives can jeopardize progress towards the desired outcome. For example, while a tax incentive for RE incentivizes greener energy choices, continued fossil fuel subsidies simultaneously encourage fossil fuel use by artificially deflating its price.⁴⁵ Tax credits must be aligned and work in complement with other business environment policies in order to advance a green growth agenda.

⁴⁵ OECD (2021) Environmental Performance Reviews. <https://doi.org/10.1787/738553c5-en>

3.2.5 Targeted tax subsidies can facilitate green investments

Subsidies can positively enhance green product innovation,⁴⁶ and can be a great support for the growth and profitability of green technologies as they reduce barriers for green inputs, product innovation or technological change.⁴⁷ Subsidies act as financial help from the government to allow new green technologies to be implemented at the right scale for commercial purposes. Compared to other price instruments, subsidies lead to higher adoption due to their relatively simple design, and time-limited nature.⁴⁸ Green subsidies are primarily operating in industrial pollution control and agricultural activities, e.g., to support the use of biofuels, and when targeted appropriately, can be effective in helping make the green transition.

How have subsidies accelerated green growth?

For C.P. Group, subsidies have been helpful in supporting their many smallholder farmers (129,829 farmers from the 20 countries of supply are supported by the company) who otherwise would not have the funding support available to invest in biogas recapture for green energy production. Subsidies such as these can be effective in incentivizing a green transition, particularly for small businesses which otherwise may not be able to afford necessary investment.

Source: C.P. Group interview (2021)

3.2.6 Subsidies can hinder green growth

However, subsidies are highly specific by nature, and thus run the risk of favoring particularly technologies or solutions above others, as well as distorting the price of other green options in the marketplace. Subsidizing one product but not another can make it difficult for competing products or services, leading both to truncated development of the non-subsidized technologies, as well as changing what companies invest in. For example, if there's a subsidy for solar but not wind, companies may choose the cheaper product even if the other is a more effective solution for their business. Yet, more problematic are subsidies that work against green growth, such as current fossil fuel subsidies which distort its price in the market and thus encourage its continued use. In the long-term, subsidies are influenced by socio-economic factors such as fluctuations in prices, energy demand or political environment. Without accounting for these factors, subsidies can be unstable and unreliable, and ultimately lead to financial losses by businesses. They also can require large budgetary investments on behalf of governments. Moreover, according to the World Economic Forum, "measures such as fossil-fuel subsidies combine with the slow progress of international

⁴⁶ Tobias Stucki, Martin Woerter, Spyros Arvanitis, Michael Peneder, Christian Rammer (2018) How different policy instruments affect green product innovation: A differentiated perspective. https://www.sciencedirect.com/science/article/pii/S0301421517307954?casa_token=deRCcwOzUQMMAAAA:Eiy2OdtXru5XZnlVKoltJPjBxhSBaR_eemCBjy0Z6Uw02daRbcKvktw2I8c8XvqRdNrPI64Kw

⁴⁷ Climate Transparency (2020) CLIMATE TRANSPARENCY REPORT Includes 2020 emissions data and projections, analysis of stimulus responses, and insights for a Greener Recovery. CORONAVIRUS RECOVERY COMPARING G20 CLIMATE ACTION AND RESPONSES TO THE COVID-19 CRISIS. <https://www.climate-transparency.org/wp-content/uploads/2020/11/Climate-Transparency-Report-2020.pdf>

⁴⁸ OECD (2011) Tools for Delivering on Green growth. <https://www.oecd.org/greengrowth/48012326.pdf>

climate negotiations to weaken market signals that might otherwise incentivize green investment.”⁴⁹ Additionally, the World Economic Forum maintains that reducing fossil fuel subsidies and redirecting these investments into clean energy infrastructure can reduce GHG emissions and overall costs of mitigating climate change.⁵⁰

Subsidies also disincentivize the continued R&D and innovation needed to permanently reduce the price of green technologies. They are usually ineffective at encouraging the development of greater efficiency of products; this can be due to the subsidy being tied to a specific product or technology, and not for a more efficient alternative, meaning there is little financial incentive to change. Subsidies also run the danger of creating long-term dependence, making it difficult for policymakers to later eliminate the subsidy, which creates uncertainties as well for businesses.⁵¹ For example, fossil fuel subsidies artificially reduce the cost of continued production and use, which encourages use and long-term dependence of an energy source at odds with a green transition. Singh (2015) suggests that subsidies should not be given on a long-term basis but more as a one-time help for a short time to keep synergies between business environment and support for innovation. Thus, both research and interviewed companies suggest that tax subsidies for green growth might be used most effectively for innovation and R&D, rather than to reduce the price of a product itself.

How can subsidies support green growth?

Subsidies can distort the price of products in the marketplace, which can prove problematic by favoring one technology over another, or worse, work in competition to green growth, as in the case with fossil fuel subsidies. Thus, companies suggest that subsidies target innovation itself, rather than products. They also discourage the subsidization of existing technologies, as this can hinder the further innovation and development needed to refine technologies, seek cost efficiencies, and scale sustainably in the marketplace.

Source: Companies’ interview (2021)

Overall, both subsidies and taxes credits shape business decisions by affecting the price of goods and investments.⁵² Tax subsidies are more of a mixed bag; they can be effective at helping scale new technology and supporting R&D, but when used long-term for specific products, their use can be counterproductive.⁵³ Overall, tax credits and subsidies – when used in targeted and complementary ways – can be used to facilitate both individual companies in making green investments as well as raising the ‘greenness’ of the market overall.

⁴⁹ World Economic Forum (2013) The Green Investment Report: The ways and means to unlock private finance for green growth. P. 6. https://www3.weforum.org/docs/WEF_GreenInvestment_Report_2013.pdf

⁵⁰ World Economic Forum (2013) The Green Investment Report: The ways and means to unlock private finance for green growth. https://www3.weforum.org/docs/WEF_GreenInvestment_Report_2013.pdf

⁵¹ OECD (2011) Tools for Delivering on Green growth. <https://www.oecd.org/greengrowth/48012326.pdf>

⁵² Climate Transparency (2020) CLIMATE TRANSPARENCY REPORT Includes 2020 emissions data and projections, analysis of stimulus responses, and insights for a Greener Recovery. CORONAVIRUS RECOVERY COMPARING G20 CLIMATE ACTION AND RESPONSES TO THE COVID-19 CRISIS. <https://www.climate-transparency.org/wp-content/uploads/2020/11/Climate-Transparency-Report-2020.pdf>

⁵³ Bundrick J. (2016) Tax breaks and subsidies – Challenging the Arkansas status quo. https://uca.edu/acre/files/2016/06/JBundrick_TaxBreaksSubsidies.pdf

3.3. R&D (innovation)

Government funds for R&D in innovative green solutions are an important policy tool to accelerate green business growth and decarbonize industries. According to the World Economic Forum, public funding for R&D is not only crucial for funding research projects, but also for mitigating risks for private sector investments in early-stage technologies.⁵⁴ While companies make investments themselves in these areas, there is a consensus that major investment also needs to come from government. Nonetheless, the World Economic Forum states that innovation is lagging behind the needed pace we need to reach climate goals.⁵⁵

3.3.1 Public funding for R&D reduces barriers to green innovation

Public investment can help ‘future proof’ R&D in green areas in at least two ways. First, it underwrites the cost of the investment itself, thereby de-risking and incentivizing research into new and unknown areas where the return-on-investment is hardly guaranteed.⁵⁶ Funding R&D in green technology can mean that solutions are developed that otherwise would not have been due to barriers such as lengthy time frames, uncertain returns, and lack of a demonstrable track record to attract necessary investment.⁵⁷ Governments can bridge gaps by providing funding for innovation, thereby overcoming the investment cycle challenges. With clear and consistent policies, companies would be more confident to invest in R&D, renewables, and the like in a particular market. Mars, Maersk, and others support governmental investment in R&D to foster innovation and support emerging technologies. Indeed, they suggest using policies in complement to each other to use tax credits to generate R&D funding for cleaner alternatives.

Second, public R&D investment also signals the long-term viability of the type of solutions under development, reinforcing the likelihood that such solutions will be embraced in the marketplace. These assurances help to further de-risk private investment while – hopefully – providing good return-on-investment on public spend. For example, Mars developed mono-material plastic packaging for an M&M’s pouch in France as France is investing in infrastructures and regulations to recycle such a pouch, making the investment less risky. The decreased risk and cost of developing new green solutions, combined with a broader supply of green options, is also likely to result in more green options being available in the marketplace, and at a lower price.

⁵⁴ World Economic Forum (2021) Shaping an Equitable, Inclusive and Sustainable Recovery: Acting Now for a Better Future. P.24. https://www3.weforum.org/docs/WEF_Shaping_an_Equitable_Inclusive_and_Resilient_Recovery_2021.pdf

⁵⁵ World Economic Forum (2013) The Green Investment Report: The ways and means to unlock private finance for green growth. https://www3.weforum.org/docs/WEF_GreenInvestment_Report_2013.pdf

⁵⁶ OECD (2012) Green Growth and Developing Countries: A summary for Policy Makers. <https://www.oecd.org/dac/50526354.pdf>

⁵⁷ BCG (2021) Governments that invest in climate innovation invest in growth. <https://www.bcg.com/publications/2021/developing-a-climate-funding-plan>

How can public investment reduce barriers to green innovation?

A BCG report on government investment in climate innovation suggests several ways that public funding can help reduce common barriers by:

- 1) Supporting early-stage, high-risk technologies until they become viable for the public sector
- 2) Mitigating excess risk and making investments more commercially viable
- 3) Addressing private investment shortfalls via co-investment and matching mechanisms

These recommendations are aligned with the WMB Coalition's experience that companies are much more inclined to experiment and engage in innovation if risks are reduced.

Source: BCG (2021)⁵⁸

3.3.2. Considerations for public funding of green R&D

Nonetheless, as is the case with all government funding, considerations should be made in the event funding stops. Does government funding of innovation comprise a risk to the sustainability of projects, if they are dependent on public financing? Government funding shifts the balances of cost-efficiency and can result in solutions being developed that potentially are not cost-effective. However, if the government funding is limited to the R&D phase, this only means a greater stimulation of innovation than what would have occurred under purely market terms.

3.3.3. R&D as a tool for green development

Government funding of green innovation is beneficial to companies trying to develop green solutions, and companies aiming to reduce emissions by purchasing and adopting green solutions. And while funding of green innovation is certainly helpful to societies aiming to reduce emissions through greater energy efficiency, zero emissions technologies or access to alternative materials,⁵⁹ green innovation is also an opportunity to support local growth and development by supporting the enhancement of local skills, R&D, and expertise on green solutions or technologies within communities. According to the International Energy Agency, half of the CO₂ emissions reduction per year by 2050 will be accomplished by technologies that do not yet exist. Thus, policies that support investment in innovation is necessary to meet the Paris Agreement objectives.⁶⁰ The need for new products and services (e.g., biofuels, recharging facilities) represent an opportunity for new entrants to shape and fulfill market needs, something which development agencies should consider when

⁵⁸ BCG (2021) Governments that invest in climate innovation invest in growth. <https://www.bcg.com/publications/2021/developing-a-climate-funding-plan>

⁵⁹ Climate Transparency (2020) CLIMATE TRANSPARENCY REPORT Includes 2020 emissions data and projections, analysis of stimulus responses, and insights for a Greener Recovery. CORONAVIRUS RECOVERY COMPARING G20 CLIMATE ACTION AND RESPONSES TO THE COVID-19 CRISIS. <https://www.climate-transparency.org/wp-content/uploads/2020/11/Climate-Transparency-Report-2020.pdf>

⁶⁰ World Economic Forum (2021) Shaping an Equitable, Inclusive and Sustainable Recovery: Acting Now for a Better Future. https://www3.weforum.org/docs/WEF_Shaping_an_Equitable_Inclusive_and_Resilient_Recovery_2021.pdf

making investments. Maersk, for example, believes that there is great potential for developing countries to come out as winners as new, sustainable fuels sources are developed. Thus, development agencies should consider how investments in R&D can dually promote both green solutions and green development. If constructed carefully, these types of investments can be a game-changer in many jurisdictions, as the needed products and services are likely to only increase in demand over time, thereby representing a sustainable path for long-term development and prosperity.

3.4. Infrastructure

While companies have great potential for driving green growth and green solutions, they are dependent on national governments to develop and sustain an infrastructure that supports a green transition and growth. Though business environment and infrastructure encompass a broad range of relevant aspects for facilitating green growth, this section focuses on those examples called out by interviewed organizations, namely recycling, clean energy, and EV.

3.4.1 Infrastructure for waste management

Key aspects of decarbonization related to production include promotion of a circular economy, energy efficiency, the abolition of single-use packaging, as well as the classic mantra of reduce, reuse, recycle. Governments around the world are following this lead by implementing, for example, bans on plastic bags and single-use packaging, and by encouraging recycling and using recycled content.

Countries with single-use plastic bans

Kenya: implemented in 2017, the charges for selling a plastic bag is up to four years in prison or a fine of \$38,000 USD.

UK: Started in 2015, the first phase was to implement a tax on plastic bag, which reduced by 9 billion the number of plastic bags in circulation. The second phase was to eliminate micro-plastic from cosmetic and personal care. In 2018, the ban has expanded to plastic straws, stirrers, and cotton buds.

Taiwan: In 2018, Taiwan implemented a ban on plastic bags, straws, utensils, and cups. The ban should be enforced by 2030.

Zimbabwe: Since 2017, the country has implemented a total ban on expanded polystyrene (EPS). The charge for not following the rules is a fine between \$30 and \$500 USD.

France: In 2016, France became the first country to ban plastic cups, plates, and cutlery from 2020.

Source: Calderwood I. (2018)⁶¹

⁶¹ Calderwood I. (2018) 16 Times Countries and Cities Have Banned Single-Use Plastics. *Global Citizen*. <https://www.globalcitizen.org/en/content/plastic-bans-around-the-world/>

However, when considering the business environment, adequate infrastructure and functioning waste collection and sorting are a crucial precondition to the green transition. First, consumers must be able to access comprehensive recycling services in easy and efficient ways to ensure.

This is critical for the increasing number of companies subject to EPR regulations who rely on public recycling systems to capture packaging at end-of-life. Thus, companies such as Mars advocate for investments in robust recycling infrastructure. Second, without robust recycling services, the availability of recycled content to be used in production is limited, thereby thwarting the ability to build a circular production model. Taken together, development of a comprehensive and robust recycling infrastructure is essential for facilitating a circular economy and, more broadly, the avenues available for decarbonizing production.

3.4.2. Clean energy infrastructure

Global demand for RE is rising steadily with more than 300 companies committed to reaching 100% renewable electricity through the RE100 initiative.⁶² Additionally, over 2000 companies have committed to and set science-based targets, which will require RE to achieve.⁶³ However, most companies rely on public grids for energy provision, which do not yet offer RE at scale. Indeed, the lack of available, accessible, and stable RE in many locations – particularly the Global South – curtails the performance of companies like C.P. Group that have ambitious goals for 100% green energy use. Investment in clean energy grids and infrastructure thus provides a ripe opportunity for policymakers to accelerate the transition to 100% RE.⁶⁴ Such investments are beyond the scope of most private business. So, while demand for RE exists in the private sector, fulfillment is dependent upon public investments and infrastructure.

Investing in on-site RE

Some companies with leading green growth practices, like C.P. Group, recognize that the green transition of national grids is too slow to keep pace with their ambitions and a 1.5°C pathway. To achieve their net-zero target, they have had to make their own investments in on-site RE. Comprehensive RE policies to support the transition of national grids will be necessary to ensure that all companies can make progress on Scope 2 emissions.

Source: C.P. Group interview (2021)

However, middle-of-the-pack companies may not share the same ambition or financial ability to make such investments, nor is a company-by-company approach an efficient way to reach net zero.

⁶² RE (2021) <https://there100.org/>

⁶³ Science Based Targets (2021) The Net-Zero Standard. <https://sciencebasedtargets.org/net-zero/>

⁶⁴ Climate Transparency (2020) CLIMATE TRANSPARENCY REPORT Includes 2020 emissions data and projections, analysis of stimulus responses, and insights for a Greener Recovery. CORONAVIRUS RECOVERY COMPARING G20 CLIMATE ACTION AND RESPONSES TO THE COVID-19 CRISIS. <https://www.climate-transparency.org/wp-content/uploads/2020/11/Climate-Transparency-Report-2020.pdf>

Governments must make investments and complementary policies to build and transition energy systems to renewables.

Private investment in clean energy infrastructure however remains seriously constrained by investment barriers, such as higher upfront costs, higher perceived risk and longer investment timelines compared to fossil-fuel based alternatives.

Organization for Economic Co-operation and Development (OECD)

Source: OECD (2014) ⁶⁵

3.4.3. Infrastructure for electric vehicles

Similarly, EV are a rising concern, particularly for businesses that are leading on green growth practices. Over 100 of the world's leading companies are making commitments across over 80 markets to transition their fleets to EV and install EV charging for staff and customers by 2030.⁶⁶ EV trucks are also rising on the agenda as their emissions are 8% lower compared to conventional trucks. The World Economic Forum estimates that charging infrastructures will require a global investment of \$70 billion.⁶⁷ If governments want businesses to succeed in this transition, they must invest in infrastructure for reliable and seamless EV charging for all. An example of governments committing to this type of infrastructure is the US \$7.5 billion initiative to develop a nationwide network of chargers for EV. This is to support a green transition to EV, for which sales still lag due to concerns about the accessibility of charging stations on long car trips.⁶⁸ While for now building an infrastructure for EV is an issue nearly exclusive to the Global North, policymakers should consider how transportation systems and their supporting infrastructure in developing areas can anticipate future needs.

3.5. Targeted regulation

Regulation specifically targeted at incentivizing green behavior or curbing unsustainable practices sets important parameters for the business environment. While regulation has historically received a bad rap from business, companies with leading green growth practices welcome regulation which is clear and consistent. This can both raise the floor of the marketplace as well as help companies future proof investments. Targeted regulations for sustainability can take many forms.

⁶⁵ OECD (2014) Investment in clean energy infrastructure. <https://www.oecd.org/investment/investment-policy/Clean-energy-infrastructure-brochure.pdf>

⁶⁶ The Climate Group (2021) Making electric transport the new normal by 2030. <https://www.theclimategroup.org/ev100>

⁶⁷ World Economic Forum (2021) Shaping an Equitable, Inclusive and Sustainable Recovery: Acting Now for a Better Future. https://www3.weforum.org/docs/WEF_Shaping_an_Equitable_Inclusive_and_Resilient_Recovery_2021.pdf

⁶⁸ Hubler S., Cochrane E., and Montague Z. (2021) This Is Where the States Want Billions in Infrastructure Funding. The New York Times. <https://www.nytimes.com/2021/11/06/us/states-infrastructure-bill-funding.html?searchResultPosition==>

3.5.1. Standards

Mandatory standards can raise the minimum level of performance, thus ensuring that a certain level of sustainable behavior needs to be reached to be compliant.

Why are minimum standards important for green growth?

According to Maersk, standards play a critical role in levelling the playing field for companies by ensuring everyone plays by the same rules of the game. While leaders like Maersk can raise the upper bar, standards are necessary to raise the floor on climate performance.

Mars is also supportive of standards, saying *'We advocate for government involvement on climate action. We need to advocate for higher standards, so everyone is on the same level.'*

Source: Companies' interview (2021)

Many companies with leading green growth practices adopt voluntary standards as a way to ensure the sustainability of their own business practices, such as purchasing certified commodities like palm oil via the Roundtable for Sustainable Palm Oil or locating production only in LEED-certified buildings. By and large, companies with leading green growth practices are already performing on level with best-in-class voluntary standards, so adopting such standards legislatively will help raise the performance of lagging companies while leveling the playing field for companies with leading green growth practices. In this way, minimum standards play a critical role in establishing the parameters of acceptable business behavior, a necessity to make the green transition.

3.5.2. Disclosure

Disclosure and reporting can help to enhance business' sustainability performance. Requirements for non-financial reporting are on the rise, pushing companies to take action and report progress.

The due diligence and data tracking required to comply with standard reporting and disclosures encourages companies to assess, understand, manage, and mitigate climate risks. It nudges companies to improve their sustainability performance through both better insight into their own business, as well as the imperatives of transparency, which allow external stakeholders like customers and investors to hold companies accountable. Disclosure can enhance performance.

Disclosures can be voluntary or mandatory. In the voluntary space, for example, TCFD reporting tasks companies with reporting on the potential impacts of climate-related risks and opportunities for their organization, strategy, and financial outlook, enabling leaders and investors to better understand the risks and opportunities that a changing climate poses to the business.⁶⁹ TCFD is being adopted as

⁶⁹ TCFD (2021) Task Force on Climate-related Financial Disclosures. <https://www.fsb-tcdf.org/>

mandatory by many governments; for example, New Zealand became the first country to require mandatory disclosure in line with TCFD, effective from 2023, and it will also be required in the UK by 2025. Hong Kong, Japan, and the U.S., among others, are all considering mandatory TCFD disclosure, underscoring the trend towards mandatory and aligned reporting standards. Indeed, mandated TCFD disclosure is something the WMB Coalition strongly supports.⁷⁰

These and other voluntary frameworks have been noted as helpful facilitators in the green growth of companies who are leading on climate practices. Tech Mahindra also emphasizes that voluntary standards for disclosure have equipped them to be ready for possible mandatory sustainability reporting, which may be difficult for others that do not yet have the internal capacities to track and report in the same way. C.P. Group shared that voluntary standards for disclosure can be helpful in terms of collecting data and measurements to understand performance and impact. CDP reporting is widely used by companies with leading green growth practices to track emissions in their supply chains, helping them to guide decarbonization efforts. Indeed, C.P. Group believes that carbon disclosure should be mandatory. Thus, companies with leading green growth practices encourage other companies to also track and disclose information on their performance as a helpful mechanism to understand their performance as well as to equip themselves for future mandatory disclosure.⁷¹ While interviewees broadly support mandatory disclosure, they also recognize that complying with TCFD, CDP or other reporting frameworks often requires building up internal competencies and tracking over time. Thus, while supportive, companies with leading green growth practices suggest that policymakers adopt phased requirements for mandated disclosures, which will help companies develop their capacities and abilities over time.

3.5.3. Bans

Outright bans on polluting products or practices is another key tool in shaping the business environment for green growth. Plastics are a popular example; 77 countries have adopted full or partial bans on plastic bags, which have significantly reduced the amount of plastic used.⁷² For example, when both New Zealand and Australia implemented a complete ban, the use of plastic bags decreased to almost zero.⁷³ Thus, bans can be effective at driving green behavior and actions. However, trade-offs and implications are important to consider and mitigate. For example, when Rwanda implemented a ban on non-biodegradable plastic bags in 2008, it indirectly and negatively impacted manufacturing, which did not have adequate technology or preparations to successfully make the transition. Therefore, the ban resulted in a struggle to import costly biodegradable packaging and machinery. While outright bans can be effective at driving progress, policymakers and donors should be careful to consider how to support businesses and communities in making the

⁷⁰ WMB Coalition (2021) Policy Asks for a Net Zero World. <https://www.wemeanbusinesscoalition.org/policy/>

⁷¹ UN Environment Programme (n.d.) TCFD – TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES. <https://www.unepfi.org/climate-change/tcf/#:~:text=The%20Task%20Force%20on%20Climate,in%20providing%20information%20to%20stakeholders>

⁷² UNDP (2018) Legal limits on single-use plastics and microplastics. <https://www.unep.org/resources/report/legal-limits-single-use-plastics-and-microplastics>

⁷³ Sophie Steel (n.d.) No more plastic: how effective is the plastic bag ban? <https://a-little-insight.com/2021/03/01/no-more-plastic-how-effective-is-the-plastic-bag-ban/>

transition, and stakeholders should be included in an equitable manner in order to ensure that people will not be affected negatively and that no one is left behind.⁷⁴

How policies and investments in the Global North might create unintended negative externalities in the Global South?

When Europe's ban on combustion engines in passenger vehicles goes into effect in 2035, what will happen with all its petrol and diesel cars? History shows us that in these types of instances, the Global South can become a dumping ground for the dirty technologies banned in the Global North. Such knock-on effects can exacerbate negative impacts through further degradation of air quality and increasing emissions. Further, when these products are banned in the Global North, there is little incentive for producers and service providers to continue to support parts and maintenance, leading to further degradation. As regulators are limited in their jurisdictional scope when implementing climate policy, they should take special care to consider the knock-on effects of progressive policy action on emerging economies and marginalized communities.

Source: WMB Coalition interview (2021)

⁷⁴ FAO (2021) Rwanda's journey towards sustainable food systems: The processes and practices that made a difference. <https://www.fao.org/3/cb6057en/cb6057en.pdf>

4. The role of the business environment in green growth

The business environment sets the rules and parameters in which business operates. This environment should facilitate green growth while concurrently curbing activities contributing to climate change and other negative environmental and social impacts. The experiences and recommendations of companies with leading green growth practices – combined with background research – can help inform which measures facilitate green growth and those which impede it. As such, considering the company case studies and individual instrument analysis collectively yields broader insights and findings useful to policymakers. The following section will address the role of the business environment and policy development.

4.1 Policymakers' role in green growth

The business environment is first and foremost developed by policymakers. Similarly, both national and international climate policy is developed by governments and their representatives. The processes for policy development vary between countries, regions and sometimes even municipalities. Addressing climate change in a manner which supports sustainable business growth, social justice and employment growth is complex. Importantly, a just transition requires well-planned for policy development with a continuous and constructive social dialogue process.

Policymakers are responsible for establishing the rules and parameters – i.e., the business environment – in which the private sector operates. Businesses with leading green growth practices, like those interviewed for this study, feel that they are raising the bar for green performance and ambition, and thus see a critical role for policymakers in raising the climate performance of middle-of-the-pack and laggard companies so that everyone adheres to the same minimum standards. As one interviewee put it, policymakers should be focusing on, *“raising the floor, not the ceiling; business will do that on its own”* (WMB Coalition). Thus, from the perspective of companies with leading climate practices, policymakers' efforts are often best placed on leveling the playing field and creating an enabling environment for green growth.

Once all actors are subject to the same sustainability standards and expectations, policymakers can accelerate green growth in the marketplace via the 'ambition loop', a positive feedback loop in which bold public policies and leading private sector practices reinforce each other to raise overall ambition and action.⁷⁵ Putting in place policies that provide clarity and certainty can unlock further private investment and create stability for green growth trajectories. All told, the role of policymakers in accelerating green growth varies by the maturity of companies it targets, being responsible first for ensuring minimum standards and a level playing field for the majority of businesses, and then to help facilitate and reinforce the ambition of private sector green growth leaders. Companies with leading

⁷⁵ The Ambition Loop. <https://ambitionloop.org/>

green growth practices are eager for bold and clear leadership that brings everyone along on the journey to net zero.

4.2 Business' role in green growth

Business drives economic growth, and, particularly for large companies with long supply chains, it has the ability to incite green transformations at both home and abroad. Most companies' emissions lie in their supply chain, necessitating that they bring their suppliers along on the net-zero journey if they are to make progress on the Scope 3 goals. Some companies, like those interviewed for this study, have instituted supplier capacity building programs to help educate and train suppliers in how to take climate action. While such programs largely reflect progressive voluntary action – rather than in response to regulation – such endeavors represent an opportunity to support large companies in accelerating climate action by their suppliers. This is particularly salient for development agencies and donors, as most suppliers are located in the Global South, and thus represents an opportunity to support green development through private practices.

As discussed previously, in the absence of strong public regulation, companies have adopted voluntary standards and targets to specify their net-zero goals. Given the need to make progress on Scope 3 reductions as part of these commitments, companies increasingly ask their suppliers to set targets too. Companies at the forefront are integrating sustainability metrics into their procurement policies and practices to make climate a KPI for sourcing. The creation of guidance – like the 1.5°C Supplier Engagement Guide⁷⁶ – by companies with leading climate practices clearly shows how industry leaders envision the roles and responsibilities of buyers vis-à-vis their suppliers. This includes using the power of the purse strings through both the threat of retracting business if adequate progress isn't made, but also by incentivizing good climate action with better business. This model not only can be a powerful motivator and effective method for making progress with individual suppliers, but it also helps to send broader demand signals about the expectations of buyers, normalizing and institutionalizing expectations for climate action.

Given the reach and scope of such businesses, policymakers should consider how they might best utilize the private sector's power and networks to advance climate action, particularly with regard to companies' supply chains. Some leading companies, including for example Mars in this study, prefer to continue collaborating with underperforming suppliers to help them improve, rather than cut-and-run. This developmental perspective provides a potential avenue to utilize in bringing suppliers located in the Global South on the net-zero journey. Many of these supply chains are also rooted in ODA countries, representing an opportunity to work with business in the Global North on green development objectives in the Global South.

⁷⁶ 1.5°C Supplier Engagement Guide (n.d.) Exponential Roadmap Initiative. <https://exponentialroadmap.org/supplier-engagement-guide/>

4.3. Policy importance and prioritization

It is clear from the research and interviews that there are not simply one or two types of business environment policies or instruments which are the most important to green growth. The most influential policies are highly dependent on the context. For example, for a logistics company like Maersk, the transition from fossil fuels to biofuels is key, while in other sectors – like ICT – RE and digitization are the most important. This also varies by geography; for example, while the maturation of EV infrastructures is critical to enabling green fleet transitions in the Global North, the development of recycling infrastructure may be a starting point in many countries in the Global South. Policymakers should pay careful attention to the experiences and lessons learned in more mature markets – such as EV in Europe – to inform and potentially ‘leapfrog’ such investments in the Global South. These lessons should be adapted to local contexts and new policies and investments contrived collaboratively with local stakeholders and communities.

Towards a policy mix in the business environment

Even when looking at specific sectors or geographies, it is rare for only one or two policy types to be effective in facilitating and accelerating green growth. Rather, it is the suite of policies and their relationship to each other which form the boundaries of the business environment.

As stated by Mars when discussing carbon pricing, *‘We believe other policies and programs must be in place alongside carbon pricing to meet long-term climate goals, including research and development to foster innovation and emerging technologies.’* Policy should both discourage bad behavior (e.g., pollution) as well as encourage and incentivize good behavior (e.g., decarbonization). Yet, these policies must complement and not compete with other regulations, highlighted by Mars’ experience navigating requirements for recycled packaging content with food safety requirements. As well, coordination between agencies and governments will be necessary to implement a truly complementary and comprehensive suite of policies. For example, the UN has recently announced a ‘coordination hub’ which will bring together multiple agencies and affected stakeholders – such as young people and indigenous peoples – to collaboratively support the development of more sustainable food systems.⁷⁷ Thus, policymakers and donors should thus consider how to make policies inclusive, complementary, and mutually reinforcing in order to build an ecosystem for green growth.

4.4. Considering unintended consequences

Policymakers should carefully consider unintended or knock-on effects of policy changes, be it positive or negative externalities, domestic or foreign. As above, ambitious policy in the Global North – such as banning combustion vehicles – holds potentially dire impacts for countries in the Global

⁷⁷ European Parliament (2021) UN Food Systems Summit 2021: Process, challenges and the way forward. [https://www.europarl.europa.eu/RegData/etudes/BRIE/2021/696208/EPRS_BRI\(2021\)696208_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2021/696208/EPRS_BRI(2021)696208_EN.pdf)

South which become a dumping ground for dirty or outdated technology. Yet, sometimes ambitious policies can create benefits too; C.P. Group shared how China's coal reduction policy was beneficial to their business because it complemented their RE strategy. While it was likely not the intent of China to create benefits for a Thai company, green growth policies such as these can prove beneficial climate-leading players in the market.

Yet sometimes these outcomes are difficult to anticipate. For example, climate activists celebrated when investors pushed major mining companies to cease coal production; however, these coal mines have by-and-large been sold off to smaller and less scrupulous players, leading to increased coal production and human rights abuses.⁷⁸ While challenging to forecast, the potential impacts of green growth reforms should be carefully considered.

4.5. Green transition as a development opportunity

Development agencies and other donors could consider how the needs for a green transition might be fulfilled via development projects in the Global South. For example, the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH has supported Vietnam in its green growth ambition and action plan, including the introduction of an environmental tax, levied among other things on coal, petrol and certain chemicals.⁷⁹ Moreover, the U.S. Agency for International Development's support of RE development in Vietnam unlocked \$311 million across six private sector-led RE projects and put in place a model to facilitate additional private capital RE investments in the future. Such investments enable the net-zero transition through the development of market-based clean energy systems, which benefit both local communities and economies.⁸⁰ If constructed carefully, these types of investments can be a game-changer in many jurisdictions, as the needed products and services are likely to only increase in demand over time, thereby representing a sustainable path for long-term development and prosperity.

The companies in this study see distinct opportunities for green growth in the Global South when considering investments in R&D and new technologies. Maersk, for example, believes that there is great potential for developing countries to come out as winners as new, sustainable fuels sources are developed, and that a common fund comprised of funds from a fuel tax could help support this. At the same time, several companies with leading green growth practices recognize that many Global South countries are fearful of how green development might negatively affect their ability to trade, and thus suggest that policymakers – particularly those in development – make investments to help them successfully transition to a greenery economy. This could be, for example, assistance to increase logistical capabilities, development of supportive infrastructures and institutions, education and capacity building, funds for R&D, or others. Most of the companies interviewed shared stories about how they help build the capacities of suppliers and would welcome policy support in this area.

⁷⁸ Biesheuvel T. (2021) Investors Pushed Mining Giants to Quit Coal. Now It's Backfiring. *Bloomberg Green*. <https://www.bloomberg.com/news/articles/2021-11-09/investors-pushed-mining-giants-to-quit-coal-now-it-s-backfiring>

⁷⁹ Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH (2018) Sustainable Economy: Green Growth in Viet Nam. <https://www.giz.de/en/mediacenter/72919.html>

⁸⁰ USAID (2021) USAID celebrates achievements in renewable energy. <https://www.usaid.gov/vietnam/program-updates/may-2021-usaid-celebrates-achievements-renewable-energy>

Hence, the influence of multinational corporations headquartered in the Global North but with value chains in the Global South can also create a business environment reform learning loop.

5. Recommendations for green business environment reform

The findings from this study point to several principles and practices for policymakers to consider as they undertake business environment reform. The following recommendations aim to outline priorities for business environment reform from the perspective of companies with leading green growth practices. These seek to highlight which reforms hold the potential to promote and accelerate green growth and how donor and development agencies can engage with governments and the private sector in green business environment reform.

5.1. Ensure a Clear and Consistent Regulatory Environment

5.1.1. Raise the floor through minimum standards

There was universal agreement from this study's interviewees that all players need to play by the same rules of the game, a mandate that falls under the purview of regulators to orchestrate. Companies agreed that the role of regulators is to raise the floor on sustainability and climate performance. This raises the level of laggards while also indirectly supporting companies more advanced on green growth by reducing disparities between competitors and signaling that it is safe to continue making investments in sustainability. Setting aligned, minimal standards across markets creates a level and predictable playing field, something yearned for by companies with leading green growth practices. As donors consider development investments, they should consider the level of requirements put in place to ensure consistency with leading climate standards and frameworks.

5.1.2. Ensure clarity and stability in the regulatory environment

Companies want policymakers to create a business environment constituted by clear and predictable rules and regulations which persist over time. Regulations should be sufficiently clear and specific to facilitate a definitive path forward for business, as well as clarify the scope for agency businesses have to comply. The WMB Coalition recommends that policies are specific and time bound, clearly outlining how the regulations should apply across sectors, which reduces uncertainty arising from varied interpretations. Consistency is crucial, lest companies suffer from sunk costs in complying with ever-changing legislation or program requirements. In this way, policymakers and donors can do a better job of 'future proofing' business' green investments by assuring them that the rules will endure over time. For example, Maersk shared how they begrudgingly invested millions in a specific type of scrubber technology that they did not feel worked well for their fleet, only for these regulations to change entirely two years later, nullifying their investments and necessitating new ones. Instead, they suggest that regulators focus on the outcomes – such as the type and amount of particulate matter allowed – rather than the solution itself (the type of scrubber). While business is often characterized as being anti-regulation, this is not the case for companies already leading in green growth; rather, they wish for clear regulations that raise the floor for green standards across the board while also ensuring regulatory consistency over time. Thus, policymakers should make long-term commitments

to policy positions as well as the investments necessary to support successful implementation and enforcement of these policies. A clear and consistent regulatory environment ensures a level and predictable playing field for all businesses.

5.1.3. Unify standards and reduce regulatory fragmentation

The diversity of regulatory environments across the world contributes to a race-to-the-bottom, with many countries and markets prioritizing economic growth over green growth. Even for countries seeking to lead in green growth, the level of regulatory fragmentation across markets continues to be a significant barrier to business, even if similar minimal standards are in play.

Challenges of Regulatory Fragmentation: An example from Shipping

In effort to improve air quality, some jurisdictions now require ships to use onshore power when docked. However, simple things like different technical requirements and hardware – even though utilized for the same purpose – can create significant challenges for companies to comply. For example, a Maersk ship in compliance in California does not have the hardware and credentials necessary to do the same if it sails to Singapore, which creates additional complications for the company's operations.

Source: Maersk interview (2021)

Unified and aligned minimum standards globally – such as in the areas of non-financial reporting, emissions, transportation, and even taxation – create a more navigable and predictable business environment while also slowing the race-to-the bottom. The recent agreement by the G20 on a minimum corporate tax rate of 15% is a good example of how unified, minimum standards can stymie tax havens while also securing a fair revenue for the countries of companies' functional headquarters. To guide policymakers, the WMB Coalition suggested that they consider adopting existing private standards as regulation, the virtue of this being twofold: it allows policymakers to observe the effectiveness of those standards in practice before deploying, as well as smooths the path for compliance for companies already adhering to the standard.

5.2. Create an ecosystem for green growth

5.2.1. Align investment with regulation

One of the primary findings from the research is the desire for policymakers and donors to create a more effective ecosystem for green growth by ensuring alignment between what is mandated and what is possible. For example, if little to no RE is available to purchase, how can companies reduce their Scope 2 emissions? Not all companies will be able and willing to take the path of C.P. Group and invest in its own RE production. If the recycling infrastructure is not capable of handling a broad array of packaging, how can producers comply with EPR regulations? Thus, companies see a need for

policymakers to better align the regulation of companies' sustainability practices with investments in and regulation of the business environment.

5.2.2. Use regulations in complementary ways

To help create this ecosystem, policymakers can utilize a combination of sticks and carrots. Governments may wish to use mechanisms like tax credits or subsidies to incentivize certain behaviors or investments. Some companies highlighted how targeted regulations – like plastic bag bans – can also be effective in instituting wholesale change to companies' and consumers' behavior. Such sticks and carrots are often used in a highly targeted way, focused on specific actions and behaviors. Yet, these types of efforts can benefit from complementary investments and regulations by policymakers as part of a holistic ecosystem. For example, C.P. Group discussed how recycling efforts in Thailand are dependent upon consumers' goodwill to comply; there are few penalties for non-compliance, so this coupled with a lacking infrastructure is *'doomed to fail'*. It is not just about the creation of specific policies, but about using a variety of regulatory mechanisms to ensure that entire systems are mutually reinforcing and designed to facilitate green growth.

Complementary regulation

It is not just about the creation of specific policies, but about using a variety of regulatory mechanisms to ensure that entire systems are mutually reinforcing and designed to facilitate green growth.

5.2.3. Consider the role of national business systems

While targeted regulation is a critical ingredient for creating an enabling environment for green growth, these alone are insufficient to instigate the wholesale change needed to incite a green transition. The broader national business systems at play – including considerations for the financial, political, legal, and educational systems – must be regarded as interconnected components of this ecosystem, and thus structured complementarily.⁸¹ While policymakers are beginning to apply a systems lens in some areas, this recommendation stems from the experiences of companies that the business environment as a whole currently does not effectively facilitate green growth. For example, C.P. Group pointed out the need for educational systems to provide the right kind of training to ensure that needed talent is readily available, for example by training engineers in RE, farmers in regenerative agricultural practices, or product designers in how to use lower-impact materials. Requiring companies to, for example, utilize a specified percentage of RE will only be possible if the infrastructure necessary to provide such capacity is available. Further, developing that infrastructure requires identifying and utilizing the technology needed to produce RE at necessary scale; a workforce trained in RE development and delivery; and a critical mass of service providers capable of delivering ubiquitous access. Thus, policies for green growth often require complementary adjustments in underpinning national systems, such as education, which may need to be re-oriented

⁸¹ Whitley, R. (1999). *Divergent capitalisms: The social structuring and change of business systems*. Oxford University Press, Oxford.

to provide training in areas crucial to the transition. These underlying systems issues represent a particularly propitious area for donors and development agencies, who are uniquely positioned to invest in capacity building programs that develop and evolve systems towards a net-zero future. Policymakers should consider and implement reforms in holistic and mutually reinforcing ways, looking broadly across the entire ecosystem rather than narrowly at specific measures.

5.2.4. Ensure a just and equitable transition to a global net-zero economy

As the world harnesses innovation as part of its move to a net-zero economy, it is critical to consider the social implications on the people and communities affected by the green transition. At COP26, 30 countries came together to sign the Just Transition Declaration, seeking to ensure that no one is left behind in the transition to a net-zero economy, especially individuals in high carbon-emitting industries and markets.⁸² Concrete action and investments are needed to back up such commitments. The ideas and suggestions by companies themselves regarding the just transition to reach a net-zero economy are still nascent, but it is clear that communities – particularly under-resourced ones – will need specialized support and consideration to ensure that they are not left behind. This is a particular issue for the Global South, where producers may lack the resources and incentives necessary to innovate business models or production of goods and services. Thus, both education and infrastructure investments are necessary to bring these manufacturers along as new innovations come to the fore, lest they risk losing business because they are unable to comply with ever-increasing sustainability standards. In another example, Mars pointed out the conundrum faced by farmers who are asked to make significant investments to green their business, but with no guarantee of return in the marketplace. They suggested that policymakers and donors consider how to de-risk such innovations and accelerate strategies that expand markets to drive added value to farm operations and increase overall acceptance of adopting climate-smart practices. Such an approach can support individuals and communities in making the transition, which in turn enhances the greenness of the marketplace overall. Policymakers should carefully consider how to best make investments and provide support that brings everyone along so as to not create winners and losers in the green transition.

5.3. Target business environment reform in high-impact areas for green growth

5.3.1. Carbon pricing

Carbon pricing is a specific and salient instrument that companies with leading green growth practices desire for stronger public involvement in shaping and mandating carbon emissions. This is supported by the World Economic Forum, who has found that carbon pricing is an economically effective instrument to incentivize companies to invest in low-carbon industrial and energy savings practices.⁸³ Some of the companies interviewed have instituted their own carbon price internally as a mechanism to incentivize business units to seek lower emission alternatives, as well as to better track efforts and assure progress on decarbonization targets. Article 6 of the Paris Agreement speaks

⁸² ILO (2021) ILO welcomes COP26 Just Transition Declaration. https://www.ilo.org/global/about-the-ilo/newsroom/news/WCMS_826717/lang-en/index.htm

⁸³ World Economic Forum (2021) Shaping an Equitable, Inclusive and Sustainable Recovery: Acting Now for a Better Future. https://www3.weforum.org/docs/WEF_Shaping_an_Equitable_Inclusive_and_Resilient_Recovery_2021.pdf

to the issue of carbon pricing specifically, and globally, many companies with leading green growth practices call for a global carbon price. Companies – especially fuel-intensive Maersk – also highlighted how existing fossil fuel subsidies distort the price of in the market, making green alternatives less attractive by artificially lowering the price of fossil fuels. More broadly, the WMB Coalition advocates for policymakers to outline roadmaps by 2022 for the phasing out of fossil fuel subsidies by 2025, while also asking them to make significant investments in protecting nature and biodiversity. There is some optimism about the impending EU carbon border pricing due to phase in from 2026, with supporters believing it will be a good way to discourage the race-to-the-bottom while simultaneously addressing the classic issue of leakage. There is hope amongst experts that it will encourage more local investments and production as well as a general greening of supply chains overall.

On carbon pricing, donors and development agencies are well-positioned to contribute to voluntary carbon markets, also known as carbon credits. To reach net zero, virtually all companies will need to balance residual emissions with high-quality, permanent carbon stores. Initiatives like the Integrity Council for the Voluntary Carbon Market is a new governance both established to set and enforce global standards for the voluntary carbon market, but such efforts are still in their infancy. It is estimated that the demand for carbon credits could increase 15-fold or more by 2030, and 100-fold or more by 2050. Support of all types – financial, capacity building, institutional, etc. – is needed to drive the development of a voluntary carbon market that is transparent, verifiable, effective and scalable, a task particularly fitting for donors and development agencies.⁸⁴

Given the potential of carbon pricing to drastically impact the organization of supply chains, careful attention should be paid avoid negative social impacts and ensure communities in company value chains are included in the green transition and not marginalized.

5.3.2. Mandated disclosure

Many companies also discussed transparency as a powerful mechanism to encourage compliance and progress. Each of the companies with leading green growth practices interviewed have been reporting for many years on their sustainability activities, and experts extol the relationship between reporting and action.⁸⁵ Following the classic credo of ‘what gets measured gets managed,’ companies that report their progress regularly and publicly tend to pay much closer attention to their metrics to ensure that progress is being made. The interviewees recognized that reporting can be extremely complex – particularly for businesses just embarking on their reporting journey – so suggest a phased-in approach to reporting requirements. Robust tracking and reporting take time to mature within companies, so immediately requiring a high level of reporting will prove difficult for many companies. But mandated reporting promotes transparency and accountability to stakeholders, thus motivating companies to take action.⁸⁶ Most companies with leading green growth practices desire mandated reporting, and ideally through aligned standards so that reporting in Europe will feel similar to reporting in the U.S., as elsewhere. This is supported by the World Economic Forum, which

⁸⁴ McKinsey (2021) A blueprint for scaling voluntary carbon markets to meet the climate challenge. <https://www.mckinsey.com/business-functions/sustainability/our-insights/a-blueprint-for-scaling-voluntary-carbon-markets-to-meet-the-climate-challenge>

⁸⁵ Simpson P. (2021) Why companies must produce five-year plans for climate transition. *Financial Times*. <https://www.ft.com/content/cb73bcb4-aded-4b54-81a0-649a14f6dd2e>

⁸⁶ Christensen, L. T., Morsing, M., & Thyssen, O. (2013). CSR as aspirational talk. *Organization*, 20 (3), 372-393.

emphasizes the need for reliable and comparable information – thus recommending that TCFD reporting should be made mandatory – as well as the need for complementary regulatory focus on transitions to net-zero economies.⁸⁷ As with other policy mechanisms, companies here too wish for a predictable and stable regulatory environment.

5.3.3. R&D Investment

Systems should be designed holistically for green growth, which necessitates advances in innovation. R&D is critical to make progress in many areas where solutions are nascent or not yet able to scale.

Radical innovation in the areas of RE, biofuels, agricultural practices, and many more is needed to ensure long-term sustainability and alignment with a 1.5°C ambition, and public funding can help support this endeavor. Maersk, for example, emphasizes the need for large investments in R&D for alternative fuel sources for shipping and transport to be able to reach net zero in time. These investments are beyond the scope of the private sector alone and thus necessitate public financial support.

Major R&D investment can be instituted in a variety of ways, such as private grants, investment in public research, or other mechanisms. Several companies shared that tax credits are an excellent mechanism to institute publicly funded R&D, as they can specify a clear scope for play while allowing for broad innovation. To find the funds to support these efforts, many companies suggested that funds could be generated by levying a carbon price, as previously discussed. This is supported by the B20 Task Force on Green Growth, which, amongst others, has proposed accelerating low-carbon innovation by using revenues from carbon pricing to fund research, development, and support early stage technology development, thereby increasing competitiveness, creating business opportunities and facilitating energy-efficient solutions.⁸⁸ Such an approach simultaneously disincentivizes high-carbon activities while providing investment for a green transition away from high-emitting activities. Of course, policymakers and donors will need to consider the capacities of and impacts on lower- and middle-income countries when making investments, as well as bearing in mind which solutions might be best applied to which countries once developed. In this way, policymakers can support the development of the kinds of innovations needed to successfully make the green transition while also considering the varied needs of the global economy.

⁸⁷ World Economic Forum (2021) Shaping an Equitable, Inclusive and Sustainable Recovery: Acting Now for a Better Future. P.24. https://www3.weforum.org/docs/WEF_Shaping_an_Equitable_Inclusive_and_Resilient_Recovery_2021.pdf

⁸⁸ World Economic Forum (2013) The Green Investment Report: The ways and means to unlock private finance for green growth. https://www3.weforum.org/docs/WEF_GreenInvestment_Report_2013.pdf

6. Further questions and limitations

While this study generated significant insights into companies with leading green growth practices and their experiences and recommendations for policymakers for green growth, it also yielded questions for further investigation.

First, given the study's focus on learning from companies with leading green growth practices, there follows an opportunity to better understand how their experiences and recommendations translate to middle-of-the-pack and lagging companies, as well as smaller companies more generally. While companies' testimony and the desk research sought to extrapolate how various policies may motivate or affect these companies, further research could purposefully and pointedly explore the impact of specific policies and reforms on companies of different sizes and maturity in climate. Understanding more specifically about when during a company's net-zero journey certain policies might be most impactful could provide further depth and guidance, something not possible to ascertain within this study's design.

Second, companies with leading green growth practices are disproportionately located in the Global North, raising contextual questions about how their practices and experiences may translate into the Global South. By design, this study focused on companies leading in green growth – including those located in the Global South – so as to identify the lessons and key take-aways from their experiences to inform investment and development, yet there remains an opportunity to further explore these implications in further depth. While every attempt has been made to highlight experiences of and takeaways for the development community, a deep dive study to further translate lessons to the Global South could provide additional clarity and direction.

Third, many of the companies cited challenges with the weak regulatory environment in many of the countries in the Global South where they have operations, highlighting the dual challenge faced by policymakers: facilitating green growth while enhancing the strength of the regulatory environment overall. Thus, further exploration could focus on how green growth policies and regulations might be most effectively deployed either within weak regulatory environments, or in effort to help strengthen national institutions.

Finally, this study focused specifically on private sector activities and experiences in making the net-zero transition, so focused primarily on climate and environmental policies and actions. Certainly, there are major implications to people and communities, and further research should purposefully examine social impacts. Such considerations are crucial to ensure a green transition that is just, equitable and inclusive.

7. Conclusion

This study has provided insight to policymakers about how companies with leading green growth practices are affected by the business environment, as well as the types and nature of changes these companies believe have the greatest potential to facilitate green growth. Findings and recommendations have been derived from both the direct experiences and insights from companies and an analysis of the types of public instruments they cited as most influential. The range of instruments studied provides further awareness about how they can be effectively utilized for green growth, and where instruments may work in complement or conflict. It also underscored the importance of approaching green growth from a holistic ecosystem perspective.

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