



LEADERSHIP FOR NET ZERO

CLUB DE MADRID AND THE CHALLENGE
OF CLIMATE CHANGE

ABOUT THE PROJECT: LEADERSHIP FOR NET ZERO

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PROLOGUE

The scientific consensus is unequivocal: our planet is experiencing an unprecedented rise in surface temperatures and warming of ocean basins, driven by human activities. These changes are profoundly altering Earth's climate and have already begun to unleash catastrophic consequences from rising sea levels and extreme weather events to habitat loss and mass species extinction. In response, the Paris Agreement was forged, aiming to limit global temperature rise at 1.5°C above pre-industrial levels. However, progress towards this critical goal has been sluggish and uneven.

Among the entangled and escalating ongoing global crises, spanning from the COVID-19 pandemic to misinformation and, tragically, even war, addressing climate change stands out as an imperative to safeguard people and secure a livable future. Unfortunately, short-term interests often overshadow the long-term vision needed to tackle climate change effectively, with current climate pledges leading us to a potential temperature increase of 2.4-2.8°C by the end of the century.

Putting the world on track to net zero is a monumental task that requires not only robust and predictable policy frameworks, investments or technological innovations but also strong partnerships and leadership that gather widespread societal support and foster citizen ownership of climate action globally and locally. It is crucial to acknowledge that in striving for a net zero future, we must not exacerbate existing inequalities. On the contrary, the journey towards achieving net zero presents the opportunity to alleviate poverty and foster growth and development for all.

Amidst these challenges, the Club of Madrid's **Leadership for Net Zero Initiative**, emerges as a visionary effort to mobilize political, business, and civil society leaders in a collective push towards a sustainable future. Through dialogue, collaboration, and shared purpose, the Initiative seeks to chart a course towards climate neutrality, guided by principles of equity, justice, and solidarity. From political leaders forging new pathways for climate action to businesses embracing innovation and sustainability, and from civil society advocating for systemic change to citizens demanding accountability—each plays a vital role in this journey.


The recommendations presented in this report serve as a call to action for leaders across all sectors to prioritize net zero efforts. Strategic partnerships, global advocacy, and positive narratives grounded in science are essential in fostering a just and equitable transformation towards a sustainable future. It is paramount to prioritize the well-being of both people and the planet, fostering a resilient, fair, and inclusive economy guided by transparent global governance and eco-social contracts.

As we navigate the complexities of our time, the choices we make today will reverberate for generations. Despite the challenges ahead, there are abundant opportunities for positive change. We, in the Club of Madrid, aim to raise awareness and promote knowledge and learning exchange around key events for continued advocacy and collaboration around the recommendations presented in this report. Let us embark on this journey with courage, determination, and a shared commitment to building a better world for all.



Han Seung-Soo

Vice-President of Club de Madrid and
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President of Costa Rica (2018-2022)
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LEADERSHIP FOR NET ZERO

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CONTEXT: WHY LEADERSHIP FOR NET-ZERO

Scientific evidence shows that limiting global temperature rise to 1.5°C above pre-industrial levels, as agreed in the Paris Agreement, is crucial to prevent severe climate impacts and maintain a liveable planet. To achieve this, we must reduce emissions by 45% by 2030 and reach net zero by 2050. In the face of entangled and escalating global crises like COVID-19, environmental degradation, conflicts, and inequality, governments, civil society, and businesses worldwide are urged to take decisive action for a sustainable, fair, and resilient future. This requires strong partnerships, leadership, and societal engagement and support. While challenging, this transformation also constitutes an opportunity to foster development and achieve the UN Sustainable Development Goals (SDGs) by 2030. Visionary long-term policies, along with effective communication and citizen engagement, are essential. The private sector, along with civil society, plays a crucial role in addressing these challenges as it possesses the capacity to innovate and shape a comprehensive, enduring vision.

In light of the complexity and number of converging current crises it is difficult for governments, businesses or institutions to keep the focus on fixing the ecological crisis. Instead, they may opt for short-term fixes that may, in fact, result in increasing greenhouse gas emissions (GHGs), pollution or environmental degradation, with a negative impact on the climate and all the other crises. The first Global Stocktake (GST) agreed at COP28 in December 2023 confirmed that current climate pledges under the Nationally Determined Contributions (NDCs) will fall short to achieving net zero, leading to a projected increase of 2.4-2.8 °C by the end of the century. While countries must lead the charge, tackling the climate crisis requires collective action beyond governmental that undertaken by governments with the GST also highlighting the important role that businesses and other non-state actors have in supporting national efforts. The decisions made today, and every day thereafter, by both governments and non-state actors, will determine our ability to achieve our climate goals.

In 2023 the Club de Madrid launched the **Leadership for Net Zero Initiative**, to support efforts towards achieving climate neutrality, emphasizing the importance of a strategic partnership among political, business, and civil society leaders, to build a sustainable future and safeguard future generations. To achieve its objectives, the Initiative established three Working Groups (WGs) that, piloted by WG leaders from each sector, have employed a multifaceted approach of virtual consultations, technical documents, and advocacy to focus on:

- WG1. Political Leadership, led by Prime Minister Han Seung-Soo, Vice-President of Club de Madrid and Prime Minister of Korea (2008-2009)
- WG2. Business Leadership (supported by President Quiroga and President Calderón), and
- WG3. Civil Society Leadership (supported by President Alvarado).

Each WG held two virtual meetings to discuss the technical documents the WGs leaders prepared, facilitating collaboration and peer review. Initial findings and recommendations were presented at the COP28 Spain Pavilion in a side event, on Leadership for Inclusive Climate action.

The panel included Carlos Alvarado, former President of Costa Rica and Club de Madrid Member, Helena Viñes Fiestas, co-Chair of the Net Zero Policy Taskforce and former member of the UN Secretary-General High Level Expert Group on the Net Zero Emissions Commitments of Non-State Entities, Antoni Ballabriga, Global Head of Responsible Business Sustainability BBVA, Raekwon Chung, Ban Ki-Moon Foundation for a Better Future and Marina Bragante, Public Policies Director, Instituto AYA. It was facilitated by Adriana Rodríguez, research associate at Climate Strategy.

The session allowed us to showcase successful examples of political, business and civil society leadership in fostering inclusive climate actions, just transition plans and strategic alliances for Net Zero raising awareness of their positive impact on communities. The importance of investment in mitigation and adaptation by both the public and private sectors was also emphasized.

Through engagement with the private sector, former decision-makers, and citizens, the Club de Madrid has stimulated reflection on the value and need for assertive leadership in the achievement of net zero emissions and the process culminated in the present policy paper and its concrete recommendations. The policy paper will be launched at an event at the Spanish Ministry for Ecological Transition on April 2nd 2024, with the participation of President Alvarado.



KEY TAKEAWAYS AND RECOMMENDATIONS

1.

Through this Initiative, the Club de Madrid has established an international platform for fostering reflection and mobilizing multidisciplinary expertise in implementing practical strategies towards achieving climate neutrality. Drawing upon the collective insights, analysis and recommendations prepared by the three WGs (see Annexes) this report summarises actionable recommendations for current leaders across government, civil society, and business spheres, building on the indispensable role of democratic leadership in securing and maintaining citizens' engagement and support for the transformative actions needed to achieve the net zero goal. It is important to highlight that eight of the global companies participating in the Initiative under WG2 have pledged their commitment to **sustain efforts to lead by example in line with the briefing recommendations from WG 2.**

Political Leadership Working Group. Led by Han Seung-Soo, Prime Minister of Korea (2008–2009) and Vice President of Club de Madrid; Raekwon Chung, Board Director, Ban Ki-Moon Foundation for a Better Future and Former Climate Change Ambassador, Korea.

Effective leadership on net zero requires a concerted global effort to mobilize finance, prioritize equity, enhance urban resilience, reimagine international relations, align policies with climate goals, and embrace sustainable lifestyles and production and consumption patterns. The current global climate and finance regime is failing to sufficiently address the worsening climate and biodiversity catastrophes, particularly in the poorer and most vulnerable countries, with persistent structural problems hindering progress over the past decades. The briefing highlights concrete recommendations across four key areas, for policymakers, businesses and civil society summarised as follows:

- **Responsibility sharing and empowering citizens.** The burden of climate pledges and NDCs falls mainly on governments and businesses, leaving climate-concerned citizens as bystanders. Initiatives such as EPD (Electricity Price Differentiation), PDC (Personally Determined Contribution), and the “Me First” campaign are proposed to actively engage consumers and civil society. Voluntary schemes can also encourage climate-concerned consumers, particularly richer consumers, to share the incremental cost of transitioning to clean energy, alongside for green pricing schemes and sustainability prioritization by businesses, promoting Environmental, Social and corporate Governance (ESG). Civil society is urged to lead the “Me First” campaign and promote voluntary PDC among climate-concerned consumers.

- **Revising economic metrics for sustainability.** Economic development typically relies on country's gross domestic product (GDP), which does not fully address climate concerns. Decoupling the carbon intensity of economic growth, that is to say, a decrease in CO₂ emissions per unit of GDP, is not enough to reach climate goals. It is important to use alternative measures beyond GDP, focusing on carbon intensity and consumption-based emissions and not only on production emissions, to prioritize sustainable consumption and production patterns. While production-based emissions have decreased, consumption-based emissions, accounting for imported goods, have not seen a proportional reduction. Addressing carbon leakage requires a shift towards consumption-based emission calculations and global discussions on shared consumer responsibility for imported goods, urging governments to publish consumption-based emission data and develop policies to improve emission reductions in consumption patterns.

- **Promoting positive narratives for climate action and net zero.** Negative perceptions, suggesting a trade-off between mitigation and economic

growth, hinder climate action. These messages need to be replaced with more realistic facts and figures about the economic, and social, benefits of climate and environmental action, together with avoided economic (and human) losses. The emphasis should be on portraying mitigation as an investment for future growth rather than a cost, with calls for political, business, and civil society leadership to promote this perspective, support research on innovation opportunities, and disseminate positive messages and benefits of climate action.

- Implementing carbon pricing initiatives and internalising externalities. It involves putting a price on the use of the environment, placing a charge on the harmful effects of unsustainable production and consumption. There are growing calls for a global carbon pricing scheme, such as the Nairobi Declaration at the first-ever Africa Climate Summit in 2023. It suggests the gradual implementation of carbon pricing policies such as Social Cost of Carbon (SCC) and ecological tax reform (ETR) to gradually internalize carbon costs without causing sudden economic shocks. This approach aims to improve carbon efficiency, stimulate green investments, and promote green infrastructure development. Furthermore, it underscores the need for political, business, and civil society leadership to advocate for and implement carbon pricing policies effectively, emphasizing their potential benefits for both the economy and the environment.

2.

Business Leadership Working Group. Led by Climate Strategy and comprised of nine global companies from different sectors – financial services, energy, telecommunications, automotive, construction, textile and food industry – and expert reviewer, Helena Viñes Fiestas, co-Chair of the Net Zero Policy Taskforce and former member of the UN Secretary-General High Level Expert Group on the Net Zero Emissions Commitments of Non-State Entities.

Meeting the 1.5°C target will require significant mobilization of the private sector to not only reduce emis-

sions of a company's controlled activities, but also of the entire global supply chain. In some sectors, supply chain emissions (upstream scope 3) represent an average of 11.4 times more than the sum of their direct emissions (scope 1 and 2). However, according to data from the Carbon Disclosure Project, only 36% of companies are reporting scope 3 emissions and less than 1% have science-based net zero targets.

Decarbonising supply chains should be seen as an economic opportunity rather than a cost. It can lead to increased resilience, security of supply, and value-added for products and services, while contributing to quality employment and inclusive, local development. Regulatory frameworks are evolving to align corporate practices with climate goals and ensure transparency and accountability. Sustainable supply chain management is increasingly becoming a legal requirement and a business imperative in response to investor and consumer demands for eco-friendly products and services. The briefing produced by the Business Leadership Working Group outlines a compilation of good practices and recommendations aimed at achieving a just transition in global supply chains and net zero commitments summarised into nine key steps. Eight of the participating companies have pledged to sustain efforts to lead by example in line with these recommendations. The briefing also includes a case study for each of the participating companies.

- Enhancing measurement and reporting of upstream scope 3 emissions by engaging suppliers more effectively and employing updated estimation methods and technologies. Corporations should establish continuous dialogue with suppliers, facilitated by tools like ESG evaluation forms, and engage in innovative initiatives to use digital technologies to track and estimate the emissions of their suppliers. Promoting the use of Environmental Product Declarations (EPDs) or Life Cycle Analysis (LCA), along with third-party verification, for accuracy and reliability. Corporate alliances should advocate for common reporting platforms that could serve as one-stop-shops for data.

- Setting science-based scope 3 targets aligned with achieving net zero emissions before 2050 and a 1.5 °C trajectory. Targets should cover short-, medium-, and long-term emissions and be reviewed every five years. The use of offsets, emissions credits, carbon removals or storage should be reported separately, not count for the achievement of interim targets and limited to residual emissions.

- Integration of climate criteria and thresholds into procurement and supplier contracts to drive supply chain targets and market mobilization.

Companies should request suppliers to establish decarbonization targets aligned with their own net zero trajectory and incorporate climate benchmarks in their procurement like renewable energy targets or waste management. A step-by-step approach involving hotspot identification, engagement with top emitters, and the introduction of stricter procurement criteria for key hotspots, alongside incentives for procurement teams and internal carbon pricing mechanisms, is advised to accelerate green procurement.

- Internal capacity building to facilitate the implementation of climate procurement, hand in hand with internal communication campaigns, awareness-raising events and cross-functional collaboration. Developing support tools for procurement staff can aid in the application of climate requirements and the tracking of suppliers' progress.

- Enhanced support to SMEs, given their crucial role within supply chains and their challenges in implementing greener practices due to limited resources and knowledge. There is a general lack of support from large companies to SME suppliers at home and abroad in their green transition, despite successful initiatives such as the SME Climate Hub and the UN Global Compact's supply chain initiative. Training programs and personalized advisory services, together with enhanced collaboration between large companies and SMEs, are recommended to ensure alignment and facilitate mutual learning and capacity building.

- Integrated approaches and collaborations between large companies and banks to create finance programs and opportunities for suppliers, particularly SMEs, in their green transition. Collaborations with regional banks to provide finance with lower interest rates and other benefits can support SMEs in their decarbonization. Large companies can also support SMEs in identifying their sustainable financing needs, provide liquidity and facilitate their access to public and private funding.

- Innovation and the integration of clean technologies across supply chains, particularly in promoting collaboration within hard-to-abate industries, such as green hydrogen or sustainable aviation fuels. It can be kickstarted through collaborative research initiatives between large com-

panies and SME. To further incentivise innovation, some corporates are including as green procurement criteria the adoption by suppliers of research policies. Collaborative initiatives like the First Movers Coalition can also support covering the green premium associated with breakthrough clean technologies.

- Just transition strategies ensuring climate adaptation, broader socio-economic benefits and achievement of SDGs across supply chains and regions. Procurement processes and improvement plans for suppliers should support them in considering the social impact of their transition, including local supply chains, human rights and labour rights. Partnerships with local SMEs can build workforce capacity and create quality jobs in green sectors, while collaboration with local governments is crucial for policy alignment and fostering a just transition. Strategies should also address both the physical risks to supply chains and the impacts of the company's adaptation responses.

- Policy support to drive greater corporate ambition for a just transition in supply chains, emphasizing the need for policies that set minimum standards aligned with the 1.5 °C goal while incentivizing ambition through rewards for early movers and partnerships with SMEs. Transparent lobbying practices aligned with climate targets are urged, with companies encouraged to advocate for strong policies and standards. Disclosure of trade association memberships and inclusion of needed policies for supply chain decarbonization in annual climate reports are recommended.



3.

Citizen Leadership. Led by AYA Earth Partners and ten members from diverse civil society organizations (CSOs) globally.

When addressing the climate crisis and planning for net zero, it is imperative to rethink our economic and social model to create a sustainable, climate-neutral, circular, green, resilient, inclusive, and equitable future. Citizens should play a crucial role in shaping this transformation, yet more action is needed so they participate in climate litigation, make impact investments, engage in participatory processes, or demand action from governments and companies. This is clearly outlined in the policy brief prepared by the Political Leadership Working Group, with concrete recommendations on the empowerment of citizens and consumers around three blocks. The recommendations, that should be considered by policymakers, and businesses, so all sectors of society can collaborate to building citizen capacity and addressing the climate crisis, are summarised as follows:

- Climate finance for the most vulnerable

- Improve mainstreaming of climate and environment in all policies and economic sectors. This should also mean enhancing the ambition of NDCs, setting deadlines for phasing out fossil fuels and aligning timelines to limit global warming to 1.5 C, always taking into account the different starting points, capabilities and responsibilities, and putting people at the center.
- All actors, but mainly richer nations together with international finance institutions and the private sector, should prioritize funding for adaptation, focusing also on cities and promoting initiatives like Nature-Based Solutions to enhance urban resilience and create green jobs.
- Centering climate finance on vulnerable communities and countries. NDCs and cli-

mate finance strategies should prioritize the needs of vulnerable communities, incorporating gender-responsive approaches, just transition principles and social and environmental safeguards. And should also include and promote their active and effective engagement and participation, including native communities and youth.

- Global solidarity. Less advanced economies need more financial support, including by transfer technology and capacity building. This could mean grant-based climate finance, including from private sector and philanthropies, to enable less advanced economies particularly the most vulnerable to develop and implement national solutions.

- Global governance for climate finance justice

- Address structural issues in the current global climate and finance regime to bridge the finance gap. This requires concerted action, effective debt restructuring, liquidity support, increased public and private investment, innovative financing mechanisms, and long-term affordable capital for green sectors particularly in emerging and developing economies.
- Multilateral Development Banks and international finance institutions should work together to harmonize reporting methodologies, develop and integrate green and social taxonomies, and ensure benefit-sharing with local communities through mechanisms like fair payment for ecosystem services.
- Strengthening marginalized, poor and vulnerable communities, including youth, women and indigenous communities, worldwide to participate effectively in decision-making processes, enabling grassroots organizations to drive change.



- Citizens for climate finance justice

- Governments, companies, and civil society should engage in raising awareness and communication efforts to convey the benefits of strong climate policies and educate the public, including through social media platforms and provide credible information during elections and maintaining democracy systems.
- Rethink economic and social models. Civil society must be an active player in shaping this transformation, including in changing consumption patterns. The wealthiest 1% should particularly contribute more through taxes and change consumption patterns by reducing energy demands and supporting sustainable practices.

CONCLUSIONS: WHAT'S NEXT?

Despite pledges, current trajectories are still far from achieving net zero by 2050 and the targets set by the Paris Agreement. “Any further delay in concerted anticipatory global action on adaptation and mitigation will miss a brief and rapidly closing window of opportunity to secure a liveable and sustainable future for all” (IPCC, 2022).

The window of opportunity is narrowing, so it is urgent to reflect on the major structural problems of the global climate and finance regime to deliver climate neutrality not only effectively but also fairly. In July 2022, Prime Minister Mia Mottley convened a high-level retreat in Barbados which resulted in the Bridgetown Initiative: a set of strong asks to address immediate financial needs while also starting to address systemic issues requiring transformation of the financial system. While there is a global consensus on the need for reform, divergent viewpoints on key issues such as debt relief or new financing for climate action, together with competing crises are impeding the achievement of a global agreement. Despite some progress, including the Summit for a New Global Financing Pact in 2023, or the establishment of the loss and damage fund at COP28 in Dubai, it is not enough. We need also aligned global policy frameworks, and the launch of the Taskforce on Net Zero Policy at COP28 is one step in the right direction. It aims at ensuring that the credibility and accountability of 1.5°C-aligned net zero commitments by non-state actors are underpinned with coherent policies and regulatory certainty.

The recommendations presented in this document constitute a call to action in 2024 and 2025. Club the Madrid seeks to reshape the prevailing narrative that views net zero measures merely as expensive costs, emphasizing their importance for sustainability and the survival of future generations. The need for transformative action is evident across all sectors of society, requiring robust policy frameworks, innovative financing mechanisms, and strong leadership at all levels. In response to these challenges, the Club de Madrid **Leadership for Net Zero Initiative** has created an international space for reflection and mobilisation of multidisciplinary knowledge leading to the recommendations summarised in this report, and further detailed in the three annex reports prepared by the WGs.

We aim to inspire political, business, and civil society leaders to actively engage in climate neutrality. We call on leaders across all sectors to observe these recommendations and take decisive action towards net zero and phasing out fossil fuels, ensuring a just and equitable transformation that leaves no one behind while safeguarding the planet for future generations. We are using these recommendations to continue our campaigning at the level of public information and high-level advocacy, so as to improve and strengthen global governance for both present and future generations.

We aim to raise awareness and promote knowledge and learning exchange around key events and campaigns, mobilising our Members and partnering with strategic stakeholders. Populist movements are exploiting discontent with the current socio-economic situation to undermine progress on climate and environmental action and pose a threat to democracy that delivers. Promoting positive narratives grounded in facts and science is essential to fight misinformation. Transitioning to net zero is imperative for ending poverty and improving the well-being of people worldwide. We have identified key events and initiatives this year, where we can work together with our partners in accelerating net zero advocacy. Some of these are: the High-Level Political Forum on Sustainable Development, the UN General Assembly and the UN Summit of the Future; Brazil's G20 Presidency; F20 Climate Solutions Forum 2024; the Convention on Biological Diversity (CBD) COP16, COP29, World Urban Forum or the World Bank Group Annual meetings. And we are also thinking about next year, with key events such as the Financing for Development Conference to be held in Spain, the UN II World Summit on Social Development, South Africa's G20 Presidency or the COP30 in Belém, Brasil.

We aim to prioritize and enhance the recommendations by incorporating new insights and initiatives. Our goal is to potentially develop a roadmap for implementation leading up to the UN II World Summit on Social Development and the Financing for Development Conference in 2025. We plan to conduct further research in collaboration with our partners and stakeholders, recognizing that achieving transformative policies for net zero requires sustained and widespread local support. The recommendations presented by the Club de Madrid in the **Leadership for Net Zero Initiative** in this document underscore the importance of citizen engagement, equitable distribution of resources, solidarity, integration of climate action with broader socio-economic development goals, and collaborative efforts between governments, businesses, and civil society. It is necessary to understand which mechanisms and participatory processes are likely to be most effective in building momentum and shifting investment, globally, regionally and locally.


The establishment of a robust, green and transparent global economic and finance architecture coupled with the re-formulation of social contracts that put people and the planet at the center are paramount in the pursuit of achieving net zero while fostering a resilient, fair and inclusive economy. They will serve as foundational frameworks that guide nations, businesses, and societies towards sustainable practices and equitable outcomes. Within the Club de Madrid's **2023 Policy Dialogue, Rethinking Social Development for People and Planet** we established a platform for a multi-stakeholder exchange with representatives from governments, intergovernmental organizations, academia, think tanks, civil society, and the private sector, along with Club de Madrid Members. We have developed actionable recommendations for governments and multilateral institutions to prioritize and integrate social development into their planning and policy-making processes. These will greatly help achieve net zero in a fair, inclusive and sustainable manner. We need to further delve into the institutional frameworks essential for nurturing systems that effectively navigate the complexities of decarbonization while promoting green development and upholding social justice and democratic values and principles.

Club de Madrid is the world's largest forum of democratic former Presidents and Prime Ministers, who leverage their individual and collective leadership experience and global reach to strengthen inclusive democratic practice and improve the well-being of people around the world. As a non-partisan and international non-profit organization, it counts on the hands-on governance experience of more than 100 Members from over 70 countries, along with a global network of advisers and partners across all sectors of society.

RECOMMENDATIONS FOR POLITICAL LEADERSHIP TO MAKE THE CURRENT GLOBAL CLIMATE REGIME ROBUST AND SOLID ENOUGH TO MEET CARBON NEUTRALITY CHALLENGE

The real challenge we are facing now is not just the climate disasters itself but the fact that the current global climate regime to which our future survival is at stake doesn't seem to function sufficiently enough to avoid the worsening climate catastrophe. Persistent structural problems have been paralysing the global climate regime during the last three decades.

As extreme climate damage looms upon us, carbon emissions do not show any signs of shrinking, rather it is increasingly evident that in spite of many pronounced political pledges in the form of national contributions (NDCs) under the Paris Climate Agreement, actions on the ground to meet the Net Zero 2050 target are faltering without much decisive and concerted momentum in particular after the energy crisis triggered by the war in Ukraine. Global stocktake at the COP28 in Dubai confirmed that the actions to implement NDCs of the parties fall far below the level expected to achieve 2030 target and in order to stabilize at the level required for 2°C, global emission has to be reduced by 43% below the level of 2019 emission by 2030 which is a huge challenge in view of the consistently increasing global emission trend. While warnings and appeals for urgent action abound, few clear action plans and practical strategies are being put forward as the short-term concerns about energy security override the urgent long term need for a clean energy transition. GHG emissions continue to rise and are showing no signs of a substantial downwards curve to meet the 45% reduction below 2010 by 2030 as defined by the IPCC if we are to meet 1.5°C target which is a critical condition for achieving the Net Zero by 2050.



The NDC of the Paris Climate Agreement is not the first time that countries have pledged ambitious targets. Countries have already made and broken pledges and commitments. In 1992, developed member states of the United Nations (UN) legally committed and ratified a target to stabilise their 2000 emissions to the level of 1990 as stipulated in the UNFCCC (UN Framework Convention on Climate Change). In 1997, developed countries except the US legally committed to reducing their emissions by 5.2 per cent below the 1990 level by 2012, as agreed in the Kyoto Protocol. Once again, more than 100 member states of the UN including most of the major economies of the world politically pledged ambitious targets to reduce their emissions by 20 to 40 per cent by 2020, as presented in the Copenhagen Accord announced in 2009.

Now is the time to reflect on the structural problems that are blocking the progress of climate action and fundamentally re-construct the global climate regime that could function as solid mechanism to deliver carbon neutrality.

Four major structural problems that persisted throughout the last three decades since the adoption of UNFCCC, 1992 in the history of the global climate regime have to be rectified.

FIRST,

current situation where responsibility of NDC is mainly shouldered by the Government and the Business sector, while climate concerned consumers are left as bystanders has to be rectified. A pricing system that differentiates the prices of products produced with renewable energy and products produced by fossil energy has to be constructed and provide opportunities for climate concerned consumers to make voluntary choices for clean energy products.

SECOND,

counting emission based on GDP/Production is focusing primarily on the responsibility of producers while leaving unsustainable consumption pattern untouched. Pressure on the mitigation of emissions from production is triggering carbon leakage from developed to developing countries and aggravating political concern that emission reduction of production sector could re-

duce GDP which is politically difficult to accept. Developed countries, importing much of the manufactured goods from developing countries, are reporting only their territorial production emission while their consumption-based emissions, which includes embedded emissions in their imported goods, are much higher. On the other hand, developing countries are responsible for their production-based emissions which are higher than their consumption-based emissions. In order to rectify this situation that triggers carbon leakage from developed to developing countries and to achieve global net reduction, consumption-based emission has to be reduced and making sustainable consumption pattern has to be put on the table as a critical agenda for global climate actions.

THIRD,

negative mitigation-growth scenarios and messages produced by general equilibrium models have to be replaced by the positive message of the multiplier effects of clean energy investment triggering economic growth and job creation. Numerous general equilibrium models produce negative messages that mitigation of carbon emission will reduce economic growth. These negative messages deeply imprinted in the minds of policy makers and business leaders block decisive climate actions by the Government and the Business community.

FOURTH,

current approach of focusing on mobilizing finance and technology without internalizing carbon price is producing only limited success. Now is the time to grasp carbon pricing issue as the pivotal agenda for carbon neutrality and initiate a concerted global carbon pricing scheme among the like-minded countries.

RECOMMENDATION 1

Climate concerned consumers have to be provided with opportunities to share the responsibility of energy transition and carbon neutrality. Focusing only on the responsibilities of the Government and Businesses was not enough. While on the one hand, there is a social resistance and political sensitivity about the idea of sharing the cost of mitigation, but on the other hand there is a huge ground swell of consumer willingness to voluntarily share the cost and responsibility of mitigation. Tens of thousands of people are marching for climate actions around the world.

Millions of climate concerned people and consumers are left out as bystanders in the sense that they cannot choose renewable energy except in some countries in Europe and the US. In order to translate such a strong willingness to take strong climate action into a concerted social action, there has to be a system that could allow these people to choose and consume renewable energy.

Renewable energy has to be offered to the consumers at different price from the fossil energy. The price of fossil and renewable energy has to be differentiated and offered to the consumers with different prices for the voluntary choice of climate concerned consumers since the price of renewable energy is still more expensive than fossil energy in many countries except in a few European and US states.

The price of renewable energy is falling in certain parts of the world. But still in many parts of the world renewable energy is more expensive than fossil energy. In many countries renewable energy still needs government subsidy and PPA<Power Purchasing Agreement> is required for any renewable energy projects. Due to the mounting fiscal burden arising from renewable energy subsidy, governments and power companies are limiting the quantity of purchasing renewable energy, delaying grid connections and even idling already installed wind turbines.

In order to accelerate clean energy transition, the price of energy has to be differentiated between renewable and fossil electricity and consumers and business concerned about climate should be provided with an option to choose to pay the actual production cost of renewable electricity.

Blaming the Government and the Business for lack of decisive climate actions was not enough. Climate concerned consumers should choose to pay the actual cost of renewable energy..

Thousands of climate concerned consumers are frustrated from the fact that, in spite of their willingness to share the responsibility of mitigation, there are not many opportunities for them to join the climate actions other than carrying tumblers and using public transport and left out as bystanders waiting for or demanding strong climate actions by the Government and the Business.

Historic record of global climate regime clearly shows that the political capacity of the Government and the management space of the Business are quite limited in taking decisive actions for mitigation. Climate change is in many countries one of the competing priorities of the society that does not enjoy sufficient political support to override many other competing priorities such as jobs, livelihood and income. Under such circumstances, it is only natural that politicians cannot take strong climate action for fear of losing popular elections.

The case of the Business is not much different. As long as fossil energy offers lucrative business opportunities, it is difficult to expect them to shy away from fossil business. But this can change if consumers make green choice of buying green products produced with green energy at higher actual cost of green energy.

Limitations of NDC: NDC is a political pledge by the Government. ESG is a business management action by the Business. Now climate concerned consumers have to take their own voluntary action by paying the actual cost of renewable energy and choose to consume green products produced by the renewable energy at a actual cost of renewable energy. Such a voluntary choice of renewable energy that can be called as PDC<Personally Determined Contribution> can only be done if the price of energy is differentiated between the renewable and fossil energy which can be called as Electricity Price Differentiation<EPD>system. PDC and EPD could allow climate concerned consumers share the responsibility of mitigation and join the carbon neutrality as active participants not as bystander finger pointing and blaming the Government and the Business.

PDC and EPD is not dilution or shifting of the responsibility of the Government and the Business. It is a scheme that provides the opportunity for climate concerned consumers to share the responsibility and join as active driver of carbon neutrality. PDC is neither an imposition of higher renewable energy price to all the consumers of the society nor a mandatory scheme for those consumers who cannot afford to pay the real price of renewable energy. PDC is a voluntary scheme that offers the opportunity for those climate concerned consumers to choose to pay and consume renewable energy.

In any society, achieving social consensus for strong climate action is not easy. In case of Korea, 48% of consumers support doubling of the electricity price for clean energy transition but 45% do not agree. Lack of social consensus should not be an excuse for not taking any action. Rather we have to design a scheme to initiate voluntary actions by the 48%. Already in some countries electricity prices are offered at different rates. Green train tickets whose prices are higher than regular tickets are offered for travellers who wants to travel by renewable energy without carbon emission. Additional payments are used to buy renewable energy by the train company. Best practices and success stories of those cases needs to be replicated and upscaled. Green electricity price and green train tickets can be offered to climate concerned consumers who are ready to pay voluntarily higher price for carbon free consumption pattern and lifestyle.

NDC and ESG have to be supported by PDC and EPD. Environmental campaign blaming and placing pressure on the Government and the Business made certain degree of success in raising awareness and introducing many meaningful policies and actions, but environmental campaign is not enough.

We need a social campaign of proactively sharing and joining the responsibility of energy transition. Only when consumers choose to consume green energy and green products, the Business will be motivated to produce green products by using green energy. Only when majority consumers volunteer to choose and pay the real price of clean energy, Governments can introduce emboldened decisive climate actions without fearing political backlash.

In order to translate the growing willingness of climate concerned consumers, in particular young generation, into political support for strong Government climate

actions and social change for carbon neutrality, a social campaign of <Me First> volunteer movement to choose and pay for renewable energy has to be organized and promoted. In fact, RE100 is a business Me First campaign. <Me First>campaign by the consumers will stimulate the Business and embolden the Government to take decisive climate actions.

Just like the climate concerned consumers, climate concerned companies can choose clean energy by paying the actual cost and renewable energy as part of their ESG agenda and could also introduce Green Product Price Differentiation scheme. Companies could produce green products with clean energy and put higher green price that differentiate green products from regular products produced by fossil energy. Green Price Scheme<GPS> can offer the opportunities for climate concerned consumers to choose green products produced by the renewable energy. This system will allow companies to compete for the sustainability quality of their products not just competing for lowest price that has to be fuelled by fossil energy.

Climate concerned consumers will choose and consume renewable energy for their concern for climate crisis. But some companies choose to consume renewable energy not merely from their concern for climate crisis but from their marketing strategy as they believe producing green products by choosing green energy can and will be a powerful marketing advantage in a market where increasing number of climate concerned consumers appreciate green products made by green energy. Many companies take a proactive strategy of taking advantage of consumer sensitivity for climate change as their marketing opportunity.

<PDC> supported by <EPD> and promoted by <Me First> social campaign can inspire the rest of the society to join as driver of climate action and stimulate decisive climate actions by the Government and the Business, thus could accelerate a virtuous cycle for clean energy transition and carbon neutrality.

Of course, these approaches can be better applied in high or middle-income countries. Low or least-income developing countries need financial and technical support for their sustainable choices. This is why the responsibility of the consumers in high and middle-income countries are tasked to take immediate and decisive actions to make their consumption pattern carbon free.

SUGGESTIONS: EPD<ELECTRICITY PRICE DIFFERENTIATION, PDC<PERSONALLY DETERMINED CONTRIBUTION> & ME FIRST CAMPAIGN:

- a. Engage consumers and civil society as the active player of global climate regime for Net Zero 2050. Consumers, the ultimate user of fossil energy, cannot remain as the bystander and outsider. Incremental cost of clean energy transition cannot be left to be borne by the Government and the Business alone. It has to be shared by the climate concerned consumers on a voluntary basis. Make sure that this is a voluntary scheme only for those climate concerned consumers, not imposing on all the consumers. Voluntary approach could allow this scheme to be promoted without unnecessary potential social and political arguments and resistance.
- b. Design price structure that could offer opportunities to the climate concerned consumers to pay the real cost of clean energy. In other words, consumers have to be given the opportunity to make a choice between cheap fossil energy and clean and green energy at the real price. Some might argue that renewable energy is getting cheaper and EPD is not necessary. But in reality it is not true for many countries.
- c. Promote PDC<Personally Determined Contribution> and <Me First> campaign: Since PDC is a voluntary choice, it has to be promoted by <Me First> Campaign. Current environmental campaign is mainly focusing on finger pointing Government and Business for Net Zero 2050 actions. Now we need a social campaign to encourage voluntary choice for clean energy consumption.
- d. Though NDC has to be pushed as the main backbone of global climate regime, but we cannot just wait and see what real actions the Governments and the Business can deliver. PDC has to supplement the NDC.

KEY RECOMMENDATIONS FROM CLUB DE MADRID:

For political leadership: To provide opportunities for climate concerned consumer to share the responsibility of Net Zero 2050 by making their own PDC<Personally Determined Contribution> through EPD<Electricity Price Differentiation> scheme that differentiate the price between clean electricity and fossil power so that climate concerned consumers could choose clean electricity.

To provide incentives for PDC and support for Me First campaign.

Business leadership should compete for SUSTAINABILITY QUALITY not just for CHEAPEST PRICE. This will open up marketing opportunities for ESG.

Actively choose green electricity price as part of their ESG and produce green products with clean energy and put green price on their green products; adopt a <Green Price Scheme>; a price differentiation scheme between green products produced by clean energy and regular products produced with fossil energy, thus offer opportunities to choose green products by the climate concerned consumers.

Civil society leadership could lead <Me First> campaign and encourage voluntary PDC of climate concerned consumers.

Carbon Leakage, not net global reduction: Bulk of the mitigation of the EU is in fact a carbon leakage to developing countries resulting from the relocation of energy intensive industries. In many EU countries, embedded carbon emission in their imported goods comes close to their production-based emission. In the case of the UK, carbon emission embedded in their imports outweighs territorial emission inside the UK. The UK is well aware about this problem. And the UK is one of the few governments that publishes consumption-based emission data. According to a study entitled Growth in emission transfers via international trade from 1990 to 2008, “the net emission transfers from non-Annex B to Annex B has grown from 0.4 Gt CO₂ in 1990 to 1.6 Gt CO₂ in 2008 (17% per year average growth) . . . Because estimated Annex B emission reductions from 1990 to 2008 are only -2%, representing 0.3 Gt CO₂, the net emission transfers from non-Annex B to Annex B countries is 520% higher in 2008. Cumulatively, we find that international trade has relocated 16 Gt CO₂ from Annex B to non-Annex B countries from 1990 to 2008. If historic trends continue linearly . . . , the net emission transfers from the group of non-Annex B countries to Annex B countries will be around 2.3 Gt CO₂ per year in 2020, representing 16% of Annex B emissions in 1990.” (Glen P. Peters et al., April 25 2011). “Annex B countries” are developed countries listed in Annex B of the Kyoto Protocol with specified emission reduction targets, while “non-Annex B countries” are developing countries not listed in Annex B of the Kyoto Protocol. In other words, carbon leakage from developed to developing countries is five times greater than the production-based mitigation of developed countries.

The case of the UK shows a dramatic contrast. According to UK Government data, GHG (greenhouse gas) emissions embedded in imported goods and services to the UK have been consistently greater than GHG emissions from UK-produced goods and services consumed by UK residents since 2002. In other words, terrestrial GHG emissions of the UK are smaller than GHG emissions embedded in imported goods and services during the last two decades.

According to a study entitled Consumption-based GHG emission accounting: a UK case study, “growth in consumption-based GHG emissions grew by 20% between 1990 and 2008, followed in 2008–2009 by a 9% reduction, predominately due to the global financial crisis . . . The UK GHG emissions reported to the UNFCCC (i.e. their ‘territorial emissions’) show a 27% reduction in territorial GHG emissions between 1990 and 2009, which represents an annual decline of around 1.4% per

RECOMMENDATION 2

Problems of Emission data based on Production/GDP:

current emission data is calculated from the GDP of each country. Under global economy where trade volume is almost near one fourth of global GDP, calculating emission solely based on production misses the responsibility of embedded carbon in imported goods. Production-based emission of EU reduced near 40% during the last 3 decades but consumption-based emission is reduced only around 20%.

annum. GHG emissions are 212 million tonnes lower in 2009 than in 1990, and the UK Government achieved its target established under the Kyoto Protocol. The production-based GHG emissions reduced by 24%. There has thus been a greater reduction in emissions as accounted for under the Kyoto Protocol than in those that are not. . . . From a consumption perspective, the UK's GHG emissions rose at a rate of over 1% per annum between 1990 and 2008 (with a 9% reduction from 2008 to 2009). These figures stand in stark contrast to the 1.4% decrease each year in territorial GHG emissions. The gap between consumption-based and territorial emissions has continued to grow year on year with the exception of 2009 (when a comparatively large reduction was recorded)" (Barrett et al., 2013, p. 454).

"The UK has adopted a consumption-based emissions system as an official government indicator and . . . a number of statistical offices and other government agencies have started to calculate consumption-based emissions, predominately in Europe, Australia, and Canada. However, these are rarely treated as 'official statistics' and few countries, with the exception of Australia . . . and the UK, have committed to either annually updating the indicator or providing an official statistical release of the data . . ." (Barrett et al., 2013, p. 453).

It is ironic that only China is blamed for the emissions of their energy-intensive manufactured goods exported to developed countries, while consumers of developed countries using imported energy-intensive goods from China are not responsible for the emissions of their imported goods.

Current global climate regime based on emission from GDP unilaterally finger points the responsibility of exporting countries while missing the responsibility of the consumers in importing countries. For global net reduction, emission data has to be calculated based on consumption which should include imported goods. Consumers in importing countries have to bear the responsibility not the exporting companies. Improving carbon efficiency of production pattern of exporting countries is not enough. Consumption pattern has to be carbon efficient as well.

Strong political resistance for fear of GDP reduction:

Emission mitigation is strongly correlated with the fear of GDP reduction. As the emission data is based on GDP, mitigation is perceived as reduction of GDP which is politically difficult to accept. This is the underlying root cause why politicians are quite scared in pushing for decisive actions for mitigation.

SOLUTION:

a. A study to put sustainable consumption as an agenda for global climate regime by compiling consumption based emission data to be launched:

b. A global discussion on how the consumers of imported goods could share the responsibility needs to be launched.



KEY RECOMMENDATIONS FROM CLUB DE MADRID:

For political leadership: To request IPCC, UN-FCCC and related organizations and academia to initiate a study on consumption-based emission data and methodology on how to standardize calculations.

To request Governments to initiate publishing consumption-based emission data and design policy options that could improve the carbon efficiency of their consumption patterns.

RECOMMENDATION 3

Problem of the negative messages from the Mitigation-Growth scenarios:

Scenarios on the impact on mitigation on growth based on general equilibrium models churned out numerous negative messages that mitigation will reduce economic growth. These scenarios are deeply imprinted in the minds of politicians, business leaders and the general public.

Just before the opening of the Paris Climate conference in 2015, a negative message by Bjorn Lomborg that shook the world argued that “policies that would attempt to achieve reductions of 2 °C or 1.5 °C. This would be a devastating policy for the world, eradicating at least \$250 trillion in welfare, or 5.4% of all future global GDP” (Lomborg, 2020, p. 2). “NDC of the US will result in \$154 to \$172 billion annual GDP loss based on the EMF24 model of the Stanford Energy Modelling Forum while US GDP in 2022 stands at 25,462.70 billion; NDC of EU will result in 1.6% of GDP loss in 2030 based on the EMF28 model of the Stanford Modelling Forum; based on Asia Modelling Exercise <AME>, China can reduce 1.9Gt CO₂ for about \$200 billion in annual GDP loss; based on the CLIMACAP-LAMP project that estimated costs throughout Latin America and the peer-reviewed analysis for Mexico . . . , Mexican cost in 2030 is about 4.5% of GDP or about \$80 billion annually” (Lomborg, 2020, p. 22).

IPCC AR 5 summarized that mitigation scenarios reaching atmospheric concentrations of about 450 ppm CO₂eq by 2100 entail losses in global consumption of 1 per cent to 4 per cent (median: 1.7 per cent) in 2030, 2 per cent to 6 per cent (median: 3.4 per cent) in 2050, and 3 per cent to 11 per cent (median: 4.8 per cent) in 2100 relative to consumption in baseline scenarios that grows anywhere from 300 per cent to more than 900 per cent over the century.

Though the AR5 of IPCC tried to argue that negative impact on growth will be marginal and small compared to the expected consumption growth of 300 to 900 per cent, but what is imprinted in the minds of the politicians is the negative trade-off between mitigation and growth.

These strong negative perception blocks proactive approach for mitigation and Net Zero 2050 actions. Unless these negative perceptions are reversed, it will be difficult to mobilize political momentum for real action for clean energy transition.

A critical lesson we should draw from the numerous studies based on cost-benefit analysis is that simply arguing that early action can save huge damage in the long run is not enough to mobilise global climate action.

Cost-benefit analysis has two intrinsic limitations. Firstly, cost-benefit analysis is a tool primarily designed for short to medium-term analysis, not long-term. Second, counting climate action as cost is an intrinsic problem. It should be treated as investment, not cost. Clean energy transition could be counted as cost in the short run, but it is an investment if we take a long-term perspective. Now is the time to shift from short-term cost-benefit analysis towards long-term multiplier effects of clean energy transition investment.

The passive message based on cost-benefit analyses asking people to sacrifice short-term interests to avoid future damage is not enough. Rather, we have to come up with a more proactive discourse that USD 1 invested in climate now will generate USD 5-20 investment return in the near- to medium-term. We badly need this kind of positive message to mobilise political commitment and social support.

This is why we need to focus more on the investment multiplier effect of USD 1 spent now, rather than on cost-benefit analyses. New climate-economy thinking should focus on how to maximize the multiplier effect of money spent for the clean energy transition, and present the message that such a clean energy transition is an opportunity for growth and job creation. New positive messages are already starting to come forward.

An IMF Working Paper entitled *Mitigating Climate Change: Growth-Friendly Policies to Achieve Net Zero Emissions by 2050* in July 2021 presented a finding from the G-Cubed global macroeconomic model that “. . . an initial green investment push combined with initially moderate and gradually rising carbon prices can deliver the needed emission reductions at reasonable output effects. The policy package has a net positive impact on global output for the initial 15 years, raising output on average by about 0.7 percent of baseline global GDP each year. . . . preannounced and gradually rising carbon prices are an essential policy to deliver the quick and substantial reductions in carbon emissions required to reach net-zero emissions by 2050” (Jaumotte et al., 2021, p. 6). This IMF working paper shows that depending on the assumptions, long-term estimates of GDP growth can change anywhere, from minus to positive numbers.

The OECD (Organisation for Economic Co-operation and Development) report entitled *Investing in Climate, Investing in Growth* released in May 2017 prepared in the context of the German Presidency of the G20 summarised that “with the right policies and incentives in place – notably strong fiscal and structural reform combined with coherent climate policy – governments can generate growth that will significantly reduce the risks of climate change, while also providing near-term economic, employment and health benefits. Such a climate-compatible policy package can increase long-run GDP by up to 2.8% on average across the G20 in 2050 relative to a continuation of current policies. If the positive impacts of avoiding climate damage are also taken into account, the net effect on GDP in 2050 rises to nearly 5% across developed and emerging economies of the G20” (OECD, 2017, p. 15).

Green Growth was pioneered in 2005 to support positive mitigation-growth scenarios. However, green growth is still regarded as anecdotes not as economy-wide systemic paradigm for long term growth and mitigation.

A number of meaningful developments were made in spreading the idea of a win-win synergy of the climate and economy; the establishment of the GGKP (Green Growth Knowledge Partnership), GGGI (Global Green Growth Institute), GGSD Forum (Green Growth and Sustainable Development Forum) of the OECD, Inclusive Green Growth of the World Bank, the Global Green Growth Forum by Denmark, Green Growth Alliance by South Korea and Denmark, the New Climate Economy Report by the Global Commission on the Economy and Climate, etc.

In spite of these developments, it is hard to deny that current global climate-economy discourse is still dominated by the negative messages of trade-off and zero-sum game between the climate and the economy.

SOLUTION: NEGATIVE MITIGATION-GROWTH SCENARIOS HAVE TO BE REPLACED BY POSITIVE WIN-WIN SCENARIOS THAT MITIGATION WILL DRIVE UP HIGHER GROWTH AND JOB CREATION.

a. Static general equilibrium models that produce negative mitigation-growth scenarios have to be complemented with the dynamic general equilibrium models that could produce positive win-win synergy mitigation-growth scenarios

b. Conventional cost-benefit analysis on mitigation should be complemented with the investment multiplier effects of clean energy spending.

c. Further consider New Climate Economics that supports the paradigm that mitigation and Net Zero 2050 is an opportunity for economic growth<Green Growth>

3

KEY RECOMMENDATIONS FROM CLUB DE MADRID;

For political leadership: To request relevant organizations such as the OECD, IMF, World Bank etc. and academia to work on dynamic positive mitigation-growth scenarios, focus on investment multiplier effects rather than static cost-benefit analysis.

To resist extreme short-term perspective that regards mitigation as cost but embrace long-term perspective that positively treat clean energy transition as investment for future growth, job creation and industrial competitiveness.

For business leadership: To support studies on how mitigation can provide opportunities for innovation, R&D, create blue ocean of new services, products and new market, thus ultimately stimulate growth potentials.

To grasp proactively Net Zero 2050 as opportunities for future growth rather than to resist clean energy transformation.

To support initiatives to spread out positive messages about mitigation-growth scenarios

For civil society leadership: To initiate social campaign that Net Zero 2050 is an investment for long term growth and job creation and to encourage to focus on long term perspectives rather than short term perspective that looks at mitigation as cost and burden and provide political support for NDC and disseminate PDC across the society.

RECOMMENDATION 4

Limitations of focusing on mobilizing finance and technology without internalizing carbon price/carbon pricing

Current global climate regime focuses primarily on mobilizing finance and technology is experiencing uphill battle even with the numerous initiatives such as Green Climate Fund, Green Bond, and leveraging climate financing with public and Multilateral Development Bank loans. Discussions and agenda of the COPs of UNFCCC have been dominated by finance and technology.

Fundamental reason these climate finance-technology focused approach is facing slow progress and difficulty is the fact that the price of carbon is not right. In other words, market price of energy does not internalize the real cost of clean energy.

It is a well-known fact and all economists agree that the carbon pricing is the most effective policy option that could facilitate clean energy transition. Former President Francois Hollande promised to initiate “Coalition of like-minded countries for carbon pricing” after the historic adoption of the Paris Climate Agreement in 2015. However, this promise did not materialize due to deep-rooted fear that carbon pricing will be politically and socially difficult to implement.

Carbon tax is not the only policy option for carbon pricing. In the minds of politicians, business and people, carbon pricing means carbon tax. But there are many other policy options that could internalize carbon price such as SCC<Social Cost of Carbon> and ecological tax reform<ETR: shifting tax base from income to carbon> even before carbon tax is introduced.

Applying SCC and initiating ETR in a gradual and sequenced fashion can improve carbon efficiency of production and consumption patterns while stimulating investment for clean energy transition and green infrastructure such as mass transit for private car-less mobility system.

ETR is supposed to bring about Double Dividend hypothesis; reducing emission while driving up growth and job creation which could be a strong tool for green growth mentioned above.

PDC and Me First campaign suggested above is in fact a first step to sensitize consumers for the need to pay carbon price. PDC is an attempt to introduce carbon pricing without resorting to mandatory imposition of real price of clean energy but harnessing voluntary willingness of concerned consumers.

SOLUTION:

To provide policy options and measures that could internalize carbon price gradually and step by step without causing sudden shocks and burden on the economy, business and the people.



KEY RECOMMENDATIONS FROM CLUB DE MADRID

For political leadership: To recommend all Governments to apply SCC in their major investment decisions and to initiate ETR and experiment double dividend hypothesis.

To request relevant international organizations such as the OECD, World Bank, Multilateral Development Banks etc. to initiate researches on carbon pricing on growth, job creation and trade.

For business leadership: To join the study on SCC and ETR and proactively embrace carbon pricing policy options because ultimately it is the business that will benefit most from carbon pricing initiative since carbon pricing is an attempt to share the burden of clean energy transition with the consumers.

For civil society leadership: To join the initiatives for SCC and ETR and facilitate the consumer acceptance of carbon pricing.

FINAL POSITION BRIEFING OF THE BUSINESS LEADERSHIP WORKING GROUP FOR CLIMATE NEUTRALITY TOWARDS A JUST TRANSITION IN GLOBAL SUPPLY CHAINS

The [COP28 global stocktake](#) is unequivocal: **the world is dangerously off-course to reach the 1.5°C goal from the Paris Agreement.** Under current national commitments, the earth will warm by an estimated 2.4–2.7 degrees centigrade by 2100. The stocktake also highlights the important role that businesses and other non-state actors have in supporting national efforts against climate change. [The IPCC](#) states that we need to cut at least 45% of greenhouse gas (GHG) emissions from 2010 levels by 2030 to avoid the worst consequences of global warming. This will require a significant mobilisation of resources from the private sector to not only reduce emissions of a company’s controlled activities, but also of the entire global supply chain that makes business possible.

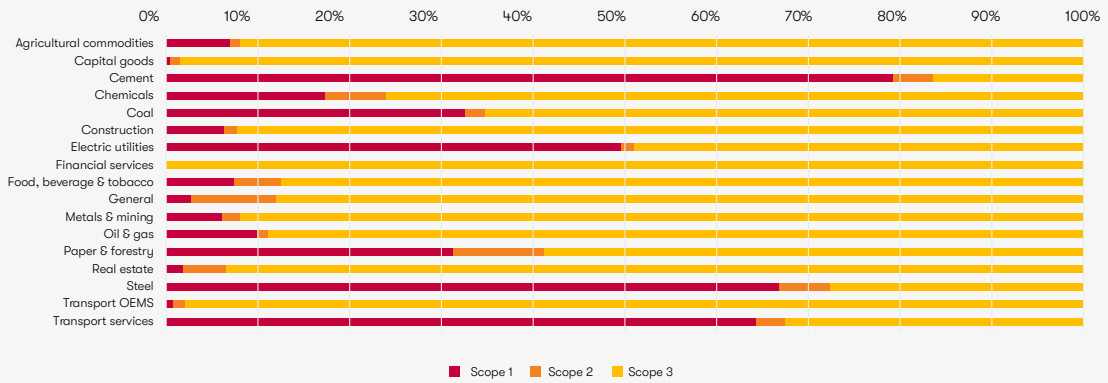
Across all sectors, scope 3 (indirect) emissions are on average 75% to 80% of a company’s total emissions. In some sectors, downstream scope 3 emissions are fundamental to address: in the financial services, “financed and investment emissions” are 700 times higher than direct emissions, and in oil and gas, “use of sold products emissions” are more than 80% of total emissions (see Graph n°1). **For other sectors, supply chain emissions (upstream scope 3) are key to their decarbonisation, representing an average of 11.4 times more than the sum of scope 1 and 2 emissions** (see Graphs n°2 and 3).

This briefing focuses on supply chain emissions and showcases some good practices from corporates to measure, manage and reduce them. A [recent report](#) from CDP finds that only 36% of companies that report their GHG emissions under this initiative do so for their purchased goods and services, which is usually the most material category of upstream scope 3. Furthermore, only 5% of companies have Science Based Targets initiative (SBTi) validated near-term targets for scope 3 that are 1.5°C-aligned, while less than 1% have SBTi-validated net-zero targets. Recent findings have revealed that [most companies with scope 3 targets are not on track to reach them](#) due to a lack of implementation of measures or slow progress in doing so.

The cost of decarbonising the top eight value chains that account for 50% of global GHG emissions would add as little as 1% to 4% to end-consumer costs in the medium term. **Efforts to decarbonise a company’s supply chain should not be seen as a cost, but as an economic opportunity to invest in the resiliency of its suppliers, guarantee the security of supply, add value to products and services, contribute to quality employment and inclusive development in the communities where the company operates and, ultimately, meet its net zero targets.**

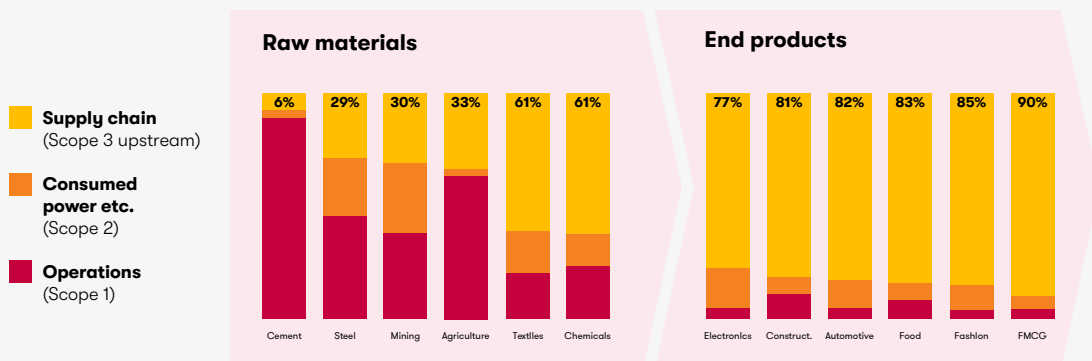
SCOPE 1, 2, AND 3 EMISSIONS BY SECTOR

Graphs n°1



EMISSION SPLIT IN SCOPES 1, 2 AND 3 UPSTREAM FOR SELECTED INDUSTRIES (CO₂E, 2019)

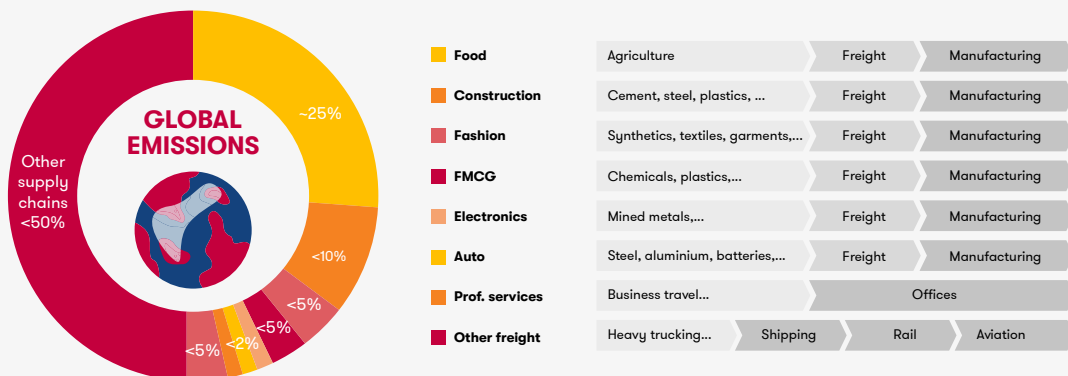
Graphs n°2



Note: Top companies selected based on number of reported Scope 3 upstream categories and industry fit; FMCG= fast-moving consumer goods. Source: CDP, BCG

EIGHT SUPPLY CHAINS ARE RESPONSIBLE FOR MORE THAN 50% OF GLOBAL EMISSIONS

Graphs n°3



Note: Only selected value chain steps are shown here; value chain steps not shown at scale; FMCG = fast-moving consumer goods. Source: BCG

Climate inaction across the supply chain risks the effective decarbonisation of the world economy, against the recommendations of scientists and international best practices. The United Nations High-level Expert Group on the Net Zero Emissions Commitments of Non-State Entities published at COP27 the [Integrity Matters report](#) that recommends large companies to measure, report and reduce their scope 3 emissions. At COP26, some of the undersigned companies also supported the Spanish Green Growth Group [Guide on Twelve Key Steps for Companies Delivering Net Zero Emissions](#), which recommends setting short, medium and long term quantitative targets for all categories of scope 3 emissions and elaborating a climate action plan to reduce them in line with the 1.5°C goal. Global initiatives have begun to set their attention on supply chain emissions to explore best practices for decarbonisation and mobilise all stakeholders involved, such as the [Global Alliance for Sustainable Energy](#) or the [CDP Supply Chain Platform](#).

Putting in practice the recommendations from these global initiatives will require corporates to engage with hundreds and even thousands of suppliers so that they align with the company's own decarbonisation targets. A key barrier to address in this process is that small and medium enterprises (SMEs) make up a significant part of a corporate's supply chain (from 50% to 80% of suppliers based on estimates from this paper's case studies, as seen in the Annex). According to several country reports in [Spain](#), [the UK](#) and [OECD countries](#), SMEs either want or feel pressurised to get involved in the world's decarbonisation efforts but they typically [lack the financial resources and knowledge](#) to calculate their carbon footprint and follow up with a robust plan to reduce it.

The Integrity Matters report recommends that large companies establish support programs for their SME suppliers to facilitate access to finance and technologies to assist them in collecting climate data and implementing transition plans. These efforts are critical to achieving a just transition of the economy, as SMEs account for more than [90% of global businesses and contribute to more than 50% of employment](#). **In collaboration with their SME suppliers, large companies can elaborate climate plans that integrate a just transition strategy across the supply chain** to guarantee that the

local communities rip the economic benefits of the ecological transition in their region.

Since the trajectory from suppliers setting their climate targets to actually implementing them towards significant results can take years, large companies need to start acting now. For this purpose, the [1.5°C Supply Chain Leaders initiative](#) from the [SME Climate Hub](#) emerges as a key platform to mobilise action and engagement with suppliers, providing them with a target-setting and reporting framework, as well as tools and training to assist in this process. Similar initiatives that look to support supply chains in their decarbonisation have already been created with a more sectoral approach, such as the [Fashion Industry Charter for Climate Action](#) (FICCA).

New regulatory frameworks are pushing for greater corporate climate accountability to address current gaps in supply chain emissions management. At COP28, the [Taskforce on Net Zero Policy](#) was launched which aims to align global policy, transitioning from voluntary initiatives by early adopters to regulated requirements for achieving net zero, ensuring accountability and a level playing field. This shift will transform best practices from leading corporations into the norm rather than exceptions.

The European Union takes a leading role in the regulatory landscape with its comprehensive sustainable finance package, incorporating key norms such as the already implemented EU Taxonomy, the [Sustainable Finance Disclosure Regulation](#) (SFDR) and the upcoming [European Sustainability Reporting Standards](#) (ESRS) as part of the [Corporate Sustainability Reporting Directive](#) (CSRD). These standards are scheduled to apply in the fiscal year 2024 for EU companies with more than 500 employees and in 2025 for those with more than 250 employees. The CSRD mandates these companies to report on their scope 1, 2, and 3 emissions, and disclose any transition plans aligning with the 1.5°C goal. Mandatory reporting for non-EU companies operating in the EU and for sector-specific standards in some sectors will begin [in 2026](#). The ESRS standard is developing a [Voluntary ESRS](#) for SMEs that includes scope 1 and 2 reporting.

In addition, the [Corporate Sustainability Due Diligence Directive](#) (CSDDD) is currently being negotiated by the EU institutions and will most probably be voted on in the European Parliament Plenary in April. The CSDDD takes a step further by **requiring large companies to adopt and implement a transition plan with specific targets and measures, leading their value chains to climate neutrality by 2050. Recognizing the potential indirect pressure on SME suppliers, the CSDDD urges large companies to establish support mechanisms for them.**

Steps towards mandating climate reporting have also been taken in other jurisdictions such as [Brazil](#), [India](#), [South Africa](#), [Japan](#), [Singapore](#) and many others. **In China, a country that is leading global investments in clean technologies, a taxonomy on sustainable finance has been developed for green bonds. A Common Ground Taxonomy** has been issued by the International Platform on Sustainable Finance to start identifying synergies between China's taxonomy and the EU's taxonomy. These efforts are moving in the right direction to boost global private and public investments to green projects. Additionally, China's Ministry of Ecology and Environment issued [new rules in 2022](#) introducing mandatory environmental disclosures for domestic enterprises, although these [do not cover yet scope 3 emissions](#). More recently, in 2024 China's stock exchanges unveiled new climate reporting rules that [do include scope 3 emissions](#) for a subset of firms. These rules are currently under consultation and would start applying in 2025.

In the United States, the Securities and Exchange Commission has recently approved new [climate disclosure rules for public US companies and in public offerings](#). While they don't cover scope 3 emissions, **a new Californian law has been approved that sets the bar even higher. It requires large companies with more than 1 billion dollars in annual revenues operating in California to disclose scope 1, 2 and 3 emissions** - including all categories related to the supply chain. Scope 3 obligations will be applicable in 2027.

All these regulatory initiatives are setting the tone in the rest of the world where corporate sustainability legislation may yet not be as advanced. The International Financial Reporting Standards (IFRS) is fo-

llowing this trend towards a greater focus on supply chains. The IFRS Sustainability Disclosure Standards developed by [the International Sustainability Standards Board \(ISSB\)](#) have included [scope 3 emissions](#) in its General Requirements for Disclosure of Sustainability-related Financial Information (IFRS S1) and Climate-related Disclosures (IFRS S2), which should kickstart significant change in companies that operate in jurisdictions that endorse the standards.

A lack of climate coordination between large companies and their suppliers poses considerable risks for the global supply chain. On the one hand, large companies that fail to engage their suppliers may face substantial challenges in meeting their global commitments to climate neutrality (obligations that are increasingly evolving into regulatory requirements). On the other hand, SMEs and other suppliers unable to meet the sustainability requests of their major clients risk losing them, as these clients may explore alternatives in an ever more competitive and international market.

These risks put further strains on [an already weakened supply chain](#) after the Covid-19 pandemic, the energy crisis and inflation, the shortages in critical raw materials and a lack of talent with multidisciplinary skills for emerging industries. At the same time, **taking action on climate within the business and fostering innovation proves to be one of the most effective solutions for addressing these supply chain weaknesses:** it can result in the mitigation of energy costs, lower dependency on fossil fuels through higher efficiency and the use of renewable sources. Additionally, adopting more circular and eco-design approaches can lead to a reduced need for raw materials. The shift towards sustainable business models will necessitate training the local workforce in acquiring new, complex, and multidisciplinary skills. This, in turn, can contribute to higher productivity and added value for businesses, with a positive impact on labour conditions and salaries.

A corollary of the above is that an improved supply chain management towards greater sustainability is not only [beneficial for business](#) and the wider economy, but also it is progressively becoming a legal requirement across regions. Furthermore, [investors](#) and [consumers](#) are already asking for more ecological, zero emissions products and services.

A set of good practices and recommendations taken from the scientific literature and the leading examples of global corporates have been identified and categorised into 9 key steps to achieve supply chain net zero commitments:

1. Improved measurement and reporting of upstream scope 3 emissions through greater supplier engagement and the use of the most updated estimation methods and technologies.

Less than 3% of companies reporting under the CDP initiative require their suppliers to provide them with climate data. This is the first gap to address in companies' supply chain management as well as the first step to establish a continuous conversation with suppliers and begin forging collaborative relationships towards decarbonisation. Among those corporates that are already gathering data of their supply chain's climate impact, **the most common method used is supplier self-evaluation forms on ESG aspects.** The environmental section of these forms should request not just the GHG emissions of the suppliers, but also **other significant impacts** – following the thresholds set by the [EU taxonomy for sustainable activities](#), these should also include climate adaptation, biodiversity, water management, circularity and pollution.

ESG forms should look to **follow the EU ESRS or recognised global standards** like those produced by the Global Reporting Initiative (GRI), CDP, the Global Compact, the Task Force on Climate-Related Financial Disclosures (TCFD) or the ISSB. Note that while ESRS is far more ambitious, it is fully compatible with ISSB. Reporting requirements should be proportional for SMEs and follow adjusted standards that are already being developed in some geographies (such as the [voluntary standards from the European Financial Reporting Advisory Group](#)).

Where the data is still missing, the Integrity Matters report asks businesses to explain how they are working to get the data or what estimates they are using. Some corporates are leading **innovative initiatives to use digital technologies like artificial intelligence and machine learning** to track and estimate the emissions of their suppliers, while also optimising supply chain management for better performance.

A recent survey shows that companies see digitalisation as the next step to drive climate transparency across their supply chains, but **less than 6% of respondents have digital tools for measuring the carbon footprint of their suppliers.** A good practice found among corporations is the creation of online carbon footprint calculators to facilitate this task to their suppliers.

A significant development that would contribute to facilitating emissions estimations in supply chains is primary data sharing of companies' emissions through **centralised and interoperable database platforms that serve as one stop shops**. Some of these platforms are currently being developed integrating data from different reporting platforms. Corporates and banks are beginning to test their effectiveness. At COP28, the [initiative Climate TRACE](#) revealed an open emissions database of unprecedented granularity. The database includes emissions data of more than 352 million assets world-wide that represents a significant step towards greater global transparency.

The ultimate goal should be to find a set of companies that champion the development of these platforms to guarantee a global record of purchasing across supply chains linked to GHG emissions. **Corporate alliances should push towards this goal by requesting their members to adhere to common reporting platforms**. As an example, the [Fashion Industry Charter for Climate Action asks members to commit to register their data in CDP Worldwide Platform](#).

To enhance climate transparency across the supply chain, corporates should consider committing to ensuring **that a percentage of their products and services are covered by Environmental Product Declarations (EPD) or Life Cycle Analysis (LCA)**. This is a useful tool that provides comparable, objective and third-party verified data of the environmental performance of products and services and reports it in a standardised format. EPDs take into account the life cycle of a product, thus they require mobilising suppliers to provide the necessary data for their development. IT and accounting firms have already started developing carbon accounting tools that **can also serve to promote greater internal transparency across the supply chain**. These tools link a company's financial data (that is, its costs/purchases and income/sales) to GHG emissions.

Once suppliers' climate data is gathered, corporates should provide greater transparency to their interest groups, especially by reporting their supply chain emissions and the **percentage of suppliers that meet their sustainability criteria**. An example of a good practice in delivering external transparency is the development of **digital platforms that allow customers and investors to track suppliers and production methods for specific products**.

Ensuring the quality and accuracy of scope 3 data is crucial, and third-party verification plays a key role in achieving this. Surprisingly, [only 35% of companies reporting scope 3 emissions under CDP choose third-party verification, and among them, only 18% report high, reasonable, or moderate assurance](#). CDP offers a [list of recommended verification standards](#) for climate reporting, such as ISO 14064 and ISAE 3000-1, along with criteria for assessing third-party verification standards. A noteworthy good practice among corporate climate leaders involves **implementing regular third-party assessments for the ESG performance of each supplier**. This assessment not only aids in risk identification but also assists in selecting specific sites for auditing and determining improvement actions.

2. Science-based scope 3 targets towards net zero emissions ahead of 2050 and in line with a 1.5°C trajectory.

Following the recommendations from the [Integrity Matters report](#) and the [GECV Best Practice Guide](#) presented at COP26 (which gathers recommendations from more than 25 initiatives and scientific literature), **scope 3 targets should include short, medium and long-term quantitative targets for all GHG emissions, reviewed periodically every 5 years, and aligned with the 1.5°C goal**. Additionally, the use of offsets, emissions credits, carbon removals or storage should be reported separately, not count for the achievement of interim targets and limited to truly residual emissions that cannot be further reduced due to technological reasons.

To guarantee that the decarbonisation trajectory set via these targets is aligned with the net zero emissions goal before 2050, corporates should verify this trajectory with internationally recognised initiatives. The [Science Based Targets](#) initiative stands out as the currently most widely used reporting framework to validate net zero trajectories. Other net zero initiatives recognised as partners of the Race to Zero Campaign may also be used if they provide accurate and sector-specific verification.

3. Inclusion of climate criteria and thresholds in procurement processes and in contracts with old and new suppliers.

Procurement is the main tool in the hands of large companies to implement their supply chain targets and send the right signals to the market that will begin mobilising suppliers on a large scale. However, the integration of climate criteria and thresholds is still an uncommon practice: **only 3% of companies reporting under the CDP incentivise purchasing departments to manage climate issues** and only 11% include climate requirements in their supplier contracts. One minimum criterion that corporates should request from their suppliers is the establishment of decarbonisation targets aligned with their own trajectory. However, as of now, [only 0.04% of CDP companies have done so.](#)

[Additional examples of procurement benchmarks](#) that can be incorporated into procurement policies include achieving a lower carbon footprint compared to similar products, reducing the volume of the product to minimise waste generation, utilising renewable energy or recyclable materials, and integrating environmental management systems and certifications, such as EMA or ISO 14001.

As a first step for companies aiming to integrate climate considerations into their procurement processes, **they should [identify and prioritise emissions hotspots in their supply chains.](#)** This identification typically involves a materiality assessment achieved through an overall screening of the supply chain, followed by the classification of sectors and the strategic level of the providers. Once the top emitters are determined, large companies should **kick-start an engagement process focused on guiding and assisting them in a decarbonisation strategy aligned with their own climate plan.** This collaborative effort will enable the industry as a whole to improve sustainability plans and aggregate data.

This identification process should be followed by the **introduction of stricter, mandatory procurement criteria for key hotspots and appropriate incentives for procurement teams,** such as variable remuneration linked to climate objectives and a code of conduct. Incentives can contribute to accelerate green procurement and strengthen its effectiveness through a phased approach. This involves addressing the most contaminating set of suppliers first, gradually moving towards the least contaminating, and fostering continuous dialogue with them. Additionally, integrating an **internal carbon pricing mechanism is recommended to drive low-carbon purchasing and generate funds for supply chain decarbonisation initiatives** (see Box n°2).

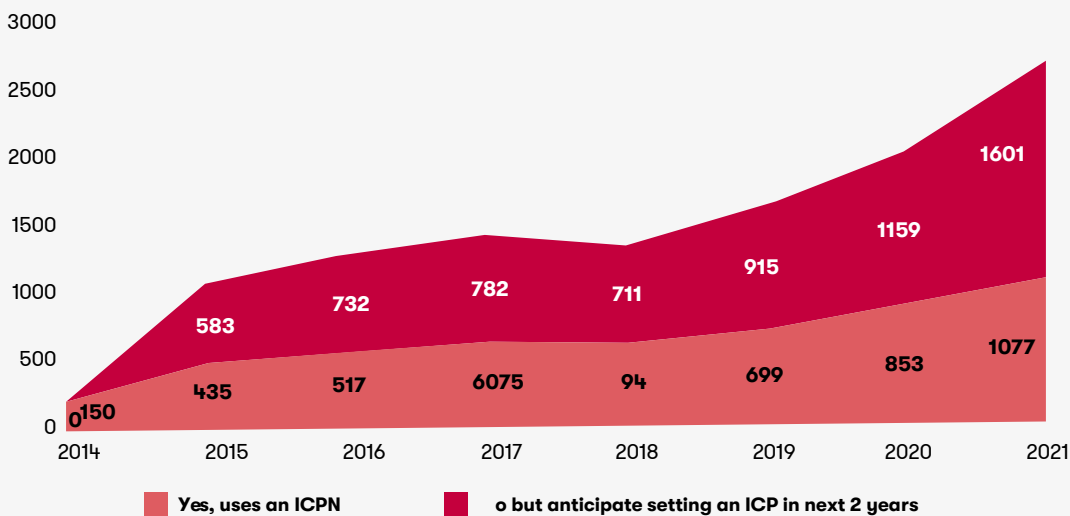
BOX N°1: THE ADVANTAGES OF INTERNAL CARBON PRICING (ICP) FOR AN EFFECTIVE AND AMBITIOUS GREEN PROCUREMENT

Some leading companies are already establishing an internal carbon price as an important lever to decarbonise their purchases and manage climate risks (see the case study of Telefónica in the Annex). The [COP26 GECV guide recommendation n° 5](#) highlights the inclusion of carbon pricing mechanisms in climate actions plans as a best practice in line with the recommendations from science and the literature. The [TCFD defines an ICP](#) as “an internally developed estimated cost of carbon emissions, which can be used as a planning tool to help identify revenue opportunities and risks, as an incentive to drive energy efficiencies to reduce costs, and to guide capital investment decisions.” In other words, **ICP puts a value on greenhouse gas emissions, to then internalise it in a company’s operations and investments, hence incentivizing low-carbon decision-making.**

[Different types exist, with the most common form being a shadow price.](#) This type introduces a **carbon value as an additional criterion in investment analysis during the calculation of the internal rate of return.** The carbon value is integrated into each investment decision and applied to resulting GHG emissions, making assumptions the same way as with exchange rates or commodity prices.

A shadow price can be integrated in purchasing decisions for equipment, materials and other products, thus favouring the least polluting ones. According to the World Business Council for Sustainable Development (WBCSD), [for an ICP to be effective at reducing scope 3 emissions](#), a company should integrate it into procurement tenders, investment evaluations, and product development processes, “starting with pilot projects focused on high-impact areas and scaling up, while prioritising based on business value”. This should be accompanied by “complementary policies, targets and effective carbon accounting, ensuring a comprehensive approach to emissions reduction.”

Another commonly used ICP is a carbon fee, which adds a cost to GHG emissions in relation to operational costs. This increases operating expenses which: i) create an internal pool of funds that allows for internal financing for emission reduction projects, low carbon products and services and R&D, and ii) provides monetary incentives to shift towards a more sustainable business model. As an example of how this pool of funds could be useful for supply chain decarbonisation, it could be used to foster innovation initiatives in collaboration with suppliers and purchase of new technologies for SMEs.



4. Internal capacity building of procurement teams and other relevant departments that manage and deal with the supply chains.

[Some of the reasons why green procurement is still an emerging area](#) in companies include: **the wrong perception that ecological products and services are more expensive, the lack of knowledge about how to develop climate criteria, the lack of support in the management of these new processes and the lack of training in procurement teams.**

Establishing training programmes for procurement teams is important to equip them with the skills to deal with suppliers and support their decarbonisation journeys. **Training activities should go hand in hand with internal communication campaigns and awareness-raising events on strategic issues for the company**, such as the inclusion of environmental and climate-related criteria in the responsible design of products and services. **Cross-functional collaboration should also be encouraged** between different departments within the company, which could involve setting up a cross-functional team responsible for implementing and monitoring the company's green procurement policy.

The ultimate aim of these actions is to **foster employees' understanding and adoption of internal sustainable practices in relation to climate change**. Overall, increasing employees' participation in the elaboration and implementation of the company's green procurement strategy is a significant and underused lever to build procurement managers' capacity in climate-related matters and, in turn, support supply chain management.

Finally, companies should develop support tools for their procurement staff to aid in the application of climate requirements and tracking suppliers' progress. Some examples include tools and guides for climate diagnosis (to better analyse and verify the self-evaluation forms mentioned in recommendation n°1), tools for evaluating regional legislative frameworks and market trends (enabling differentiated engagement with suppliers based on their location) and automated data processing tools using a set of performance indicators to facilitate tracking a supplier's decarbonisation trajectory.

5. Activation and support programmes for SME suppliers in order to kickstart their decarbonisation and align them with the company's 1.5°C trajectory.

Within a multinational company's supply chain are thousands of small and medium-sized enterprises (SMEs) that will play a key role in achieving the climate goals of their large customers. But in most cases, **these smaller companies have fewer resources and less knowledge for climate action compared to large companies.** A [Climate Strategy report](#) based on a survey of more than 300 Spanish SMEs released at COP27 concludes that 48% lack funding to implement greener practices in their businesses and 43% lack knowledge on how to go about this process. 58% of SMEs do not even have a baseline carbon footprint. Other reports conducted [globally](#), from [the OECD](#) and [the UK](#) show very similar results.

Only 39% of CDP companies reporting Scope 3 emissions involve their suppliers in this process, covering on average 41% of their supply costs. [Another study by the World Resources Institute](#) also finds a significant lack of support from large companies to their SME suppliers: the analysis of over 1,000 strategies shows that less than 10% attempt to empower SMEs in their green transition.

According to CDP data, from those companies that are already in communication with their suppliers, **24% use engagement and incentives-based initiatives to influence them in their transition, especially educational programmes. Another 12% organise innovation and collaboration activities to promote market changes**, such as campaigns that promote decarbonization solutions for the products and services offered (further developed in our recommendation n°7).

One good practice commonly used among corporates is establishing training programs that provide SMEs with the knowledge and tools necessary to calculate their carbon footprint and elaborate plans to reduce it. Many times, these training programmes make use of alliances with other organisations that can support the development of these tools. The [1.5°C Supply Chain Leaders initiative](#) stands out as it incentivises company-supplier collaborations under the SME Climate Hub, an

online platform with free tools and courses. These resources are currently being translated, which should help amplify their use in non-English speaking geographies. [The Global Compact has a similar supply chain initiative](#) which in collaboration with large Spanish companies and financial institutions has provided sustainability training to more than 2.300 SME suppliers from 35 countries (currently available in English, Spanish and Portuguese).

However, some suppliers may require more personalised and sector-specific support. As a step forward, **some companies have dedicated advisory services that provide technical support for those SMEs (and other suppliers) that do not meet the minimum standards in their evaluation forms and procurement criteria.** These services can support SMEs in elaborating a robust climate action plan that identifies the specific steps and actions to be taken, the available technologies, where the investments can come from for their implementation and, ultimately, align them with their customers' 1.5°C trajectory.

To allow for an effective and continuous evaluation of SME suppliers' decarbonisation plans, corporates have started organising annual (or more frequent) open dialogues with them to discuss progress and potential adjustments of targets and actions. **A strengthened engagement should also look to involve SME suppliers in the elaboration and evaluation of large companies' transition plans and, like this, facilitate a collaborative approach in the execution of transition plans that are aligned between big clients and suppliers.** This feedback-based process would ensure that the supply chain's trajectory is adequate to the reality of all the players involved and aligned. It will also facilitate capacity building in SMEs that can learn from the best corporate practices of their bigger and more climate-experienced clients.

6. Integrated approaches and collaborations between large companies and banks to create finance programs and opportunities for suppliers.

SMEs from different countries have highlighted the lack of financial resources as the main barrier to kickstart and deepen their decarbonisation. As the cost of financing is increasing with countries raising interest rates worldwide, **SMEs require target-**

ted and innovative financing instruments to facilitate investments in the green transition of their businesses. Some regions like the EU (with the [Next Generation funds](#)), China (the [global leader in cleantech investment](#)) and the US (with the [Inflation Reduction Act](#)) have dedicated large amounts of public funds to support the green transition. However, in some cases, the processes and requirements to apply to these funds can be complex and too stringent for an SME.

Large companies can support SME suppliers in identifying their sustainable financing needs, provide liquidity through co-investment collaborations and facilitate their access to public and private funding. Well-organised dissemination activities of the available funding opportunities in the region can also be useful in guiding SMEs looking for external support for their climate plans. The UK Business Climate Hub stands out as a best practice, as it provides a lot of information about available sources of funding per region in the country and categorised by objectives (circularity, energy efficiency, renewable energy, etc.).

[Most SMEs receive external financial support from public and private banks, who can be key allies by providing finance products with lower interest rates and other benefits.](#) Leading corporations have already started establishing collaborative programmes with regional banks to fund decarbonisation measures in their SME suppliers.

BOX N°2: A SUPPLY CHAIN FINANCE APPROACH TO ACTIVATE SME DECARBONISATION

Banks have already identified the reduction of supply chain emissions as an opportunity to leverage their sustainable finance commitments and achieve decarbonisation objectives set at portfolio level. In their engagement with corporate clients, banks aim to design the optimal finance solutions enabling clients to meet their net-zero targets.

When addressing supply chain scope 3 emissions, where corporates have less control on reductions, facilitating suppliers' access to finance becomes a key lever.

As an example of one of the members of this Working Group: **The Spanish Banco Bilbao Vizcaya Argentaria (BBVA) has developed a supply chain finance product known as “confirming” or “reverse factoring” to support large companies in mobilising SME suppliers.** Several companies have already begun using BBVA's confirming programme in Spain, Peru, Mexico and Colombia.

BBVA's confirming product is integrated in a **two-phase programme focused on, first, providing assistance to clients in designing their supply chain strategy**, which includes measuring their scope 3 emissions, defining their suppliers emissions profile, identifying priority areas towards net zero, and designing a climate action plan. Secondly, **BBVA supports clients in executing this plan with a sustainable confirming product accompanied by technical assistance** to suppliers to develop sustainable investment strategies. For suppliers BBVA offers a **wide range of financial products with better conditions for investment** in self-consumption, energy efficiency, the creation of PPAs, among others.

BBVA's confirming products classify suppliers into various pricing tiers based on their sustainability progress. **Best-performers get more favourable price conditions for the finance products they wish to access.** The purpose is to incentivise the worst-performing suppliers to further their decarbonisation efforts. Even those suppliers can access the confirming products but under less favourable conditions.

Some examples of companies that have already used this programme are:

- [Acciona \(Spain\)](#): 15 million euros to pay suppliers in the construction and operation of a waste to energy generation plant in Scotland. A total of 25 European suppliers will be able to get advanced payments for their work in this infrastructure.
- [Holcim \(México\)](#): 2.300 million pesos that will touch upon at least 2.2000 suppliers to foster their sustainable transition.
- [CEMEX \(México\)](#): 1.600 million pesos so that at least 3.000 suppliers will get preferential conditions in finance products. These suppliers need to certify an RSC conduct following ISO 26000.

7. Innovation initiatives and integration of clean technologies across supply chains, in particular promoting collaboration in hard-to-abate industries.

Many clean technologies are already commercially available for use in businesses, such as solar panels, electric vehicles, machinery with higher efficiency rates, among others. To overcome the financial barrier, SMEs have identified the need for external support to help buy and use these technologies effectively (this is the second most significant need identified by [24% of SMEs surveyed in the UK](#)). Large companies can support these types of investments through initiatives that facilitate accessible and cheap financing like those highlighted in point n° 6.

Other clean technologies that target hard-to-abate industries and sectors need further development, such as green hydrogen, long duration energy storage or sustainable aviation and maritime fuels. In these cases, large companies have the opportunity to kickstart collaborative research and development initiatives with SME suppliers, which tend to be more flexible in the integration of new processes and are open to innovation. Cooperating with initiatives focused on SME innovation, like [UNIDO's Global Cleantech Innovation Programme](#), could help provide the frame and resources for this cooperation. To further incentivise innovation across the supply chain in the long term, some corporates are including as green procurement criteria the adoption by suppliers of research policies to develop products with high environmental standards.

Some corporates are now recognising the benefits of covering the [green premium](#) associated with breakthrough clean technologies. This approach facilitates a realistic decarbonisation trajectory for the entire supply chain while also tapping into the economic opportunities of innovation. The [First Movers Coalition](#) stands out as an initiative in which companies commit to using their purchasing power to create early markets for innovative clean technologies across eight hard-to-abate sectors (aviation, shipping, steel, trucking, aluminium, carbon dioxide removal and cement & concrete). Activities carried out include organising supplier workshops to connect members with suppliers to ensure a sufficient supply of these technologies by 2030. Additionally, the coalition hosts best practice sharing sessions and engages with financial players to de-risk members' purchases and/or investments.

8. Just transition strategies to guarantee climate adaptation and other Sustainable Development Goals across the supply chain and its geographies.

Large companies can take advantage of different levers to make sure that their supply chain climate commitments are also linked to other social and governance goals. As a first step in the procurement process, the use of self-evaluation forms should integrate all ESG aspects that can serve as filters to ensure that suppliers meet the minimum criteria in each of the environmental, social and governance sections. Some corporates have assigned a minimum punctuation to each of these categories so that, if a supplier fails in any of them, they will not be hired, or an improvement plan would be put in place. This improvement plan should be accompanied with support to suppliers on how to take into account the social impact of their transition, including promoting local supply chains, applying labour and human rights and environmental due diligence.

Establishing an integral just transition plan should be the ultimate goal. Given that supply chains are distributed across different regions, integrating a local approach towards inclusive development will be key. The communities in those regions should be able to reap the benefits of their business fabric's ecological transition. Partnerships with local SMEs can help in the capacity-building of the workforce, the transfer of know-how to foster a greener entrepreneurial ecosystem and the creation of quality jobs in clean sectors.

Additionally, engagement with the local government in the frame of the just transition strategy will be key to take into account the decarbonisation path of the region in question – in particular differences in the application of climate standards and compliance. This engagement should look to put in place the right policymaking to foster the necessary local conditions for a successful just transition.

Another critical point that corporates should develop further within their just transition strategies is climate adaptation. In a survey by PWC, [over 50%](#) of CEOs mentioned risks posed to their global supply chains by climate change as one of their primary concerns. Global warming is bringing [more intense and long-lasting severe weather events](#) and is also resulting in rising sea levels that will disrupt business activity. At the same time, [climate change and misguided adaptation action can cause resource scarcity](#) that would negatively impact jobs and lead to significant health, hunger and other social crises and conflict. Therefore, just transition strategies should address both the physical risks to supply chains and the impacts of the company's adaptation responses. This holistic risk management will result in [mutually reinforcing co-benefits](#) for the company, workers and society overall. Several guides and best practices have already been identified for this purpose.

9. Policy support at the national, regional and global levels for greater corporate ambition in the just transition of supply chains.

While the recommendations outlined above are reflected in some climate strategies of global corporates, they still need to shift from being the exception to the norm if we want to accelerate the climate transition in line with science. This is where government policy plays a critical role. **Policy should set the minimum standards of corporate action that will support the achievement of the 1.5°C goal while also levelling the playing field and [incentivising further ambition with rewards for the first movers](#)** (such as incentives for greater R&D investment in breakthrough technologies and other innovative initiatives in the supply chain in partnership with SMEs and relevant stakeholders). The new Taskforce on Net Zero Policy launched at COP28, as well as regional initiatives to foster transparency and reduce scope 3 emissions such as those in the EU and the US, are all welcome as key levers to push for this ambition.

In addition, and as reflected in the recommendations of the [Integrity Matters report](#) and the [GECV COP26 Best Practice Guide](#), companies' lobbying practices should be transparent and aligned with their climate targets. They should advocate for and support strong policies and standards that will create an ambition loop, guarantee a level playing field for net zero targets and de-risk the execution of a speedy transition.

Climate-aligned lobbying practices would also require that companies' membership in trade associations is disclosed and used as a positive influence to ask for ambitious climate policies in public positions and in engagements with policymakers. Companies should also include in their annual climate reports the policies they need to decarbonise their supply chain in line with the 1.5°C goal. The [Global Standard on Responsible Climate Lobbying](#), which is supported by a large network of investors, provides more recommendations for companies that want to align with responsible climate lobbying in practice.

BOX N°3: THE POLICIES THAT BUSINESS LEADERS NEED FROM GOVERNMENTS TO SUPPORT SUPPLY CHAIN DE-CARBONISATION

1. **Eliminate subsidies to fossil fuels** and direct **more public spending** for the development, manufacturing and deployment of renewable energy, low-carbon technologies and infrastructure.
2. Approve robust **climate standards that level the playing field and drive the cost down** of decarbonised products and sustainable investment, to provide credibility and predictability for companies, consumers and investors (such as the standards being currently developed in the EU like the [Ecodesign Sustainable Products Regulation](#)).
3. **Further support from multilateral development banks** (MDBs) that can provide banks with de-risking mechanisms for climate investment, as well as with training and assistance to help banks escalate their decarbonisation efforts. Effectively harness the role of MDBs to create an enabling environment for **blended finance** to succeed.
4. Extend **appropriate trade and tariff mechanisms** (such as the EU Carbon Border Adjustment Mechanism) to the majority of traded sectors in order to create a level playing field globally.

IN CONCLUSION...

the COP28 global stocktake is unequivocal on the need to urgently reduce global emissions to keep the climate aligned with the 1.5°C goal set in the Paris Agreement. The role of corporates is essential to transition the world's economy to a fossil-free, efficient and more circular one. Accelerating these efforts in scope 3 emissions will have a dramatic impact given their materiality and will also be an important lever to mobilise other companies in global supply chains. This briefing has identified some good practices to measure, manage and reduce supply chain emissions while also promoting a just transition, maximising the opportunities for inclusive local development and contributing to quality employment. In particular, greater support to, and collaboration with, Small and Medium Enterprises will facilitate an accelerated just transition to net zero emissions.

We the undersigned companies will sustain our efforts to lead by example in line with this briefing's recommendations. We will support the world's decarbonisation efforts by establishing scope 3 targets aligned with net zero goals by 2050 and setting up measures to calculate, report and reduce supply chain emissions while contributing to a just transition and inclusive development across regions. We also call upon other global corporates to follow these recommendations and other good practices from leading climate initiatives to join the transition to net zero supply chains.



ANNEX

CASE STUDIES

*Each one of these case studies have been contributed and reviewed by the company concerned and the above signatories only undersign their own case studies and don't take responsibility for other company case studies.

BBVA

SUSTAINABLE FINANCE TO SUPPORT BIG COMPANIES' SCOPE 3 DECARBONIZATION

The origins of Banco Bilbao Vizcaya Argentaria (BBVA) date back to 1857 with the creation of various issuing and lending institutions under the National Banking Act. BBVA offers [financial services in 15 different countries such as Spain, Argentina or the United States](#).

BBVA has a sustainable finance target which has been progressively increasing over the last few years, from [€100 billion in 2018 to €200 billion in 2022 and €300 billion by 2025](#). In 2019 the World Resource Institute ranked BBVA as the [second European bank in terms of its commitment to sustainable finance](#). BBVA is also committed to its decarbonization, having joined international initiatives like the Net Zero Banking Alliance while also creating a joint methodology with “the Katowice banks” to align its portfolio with the Paris Agreement. The bank has set [decarbonization targets for 2030 in eight carbon-intensive sectors](#): Oil & Gas, Electricity Generation, Coal, Cement, Automotive, Aviation and Shipping. BBVA has been also recognized by the UN Race To Zero as a [“first mover and doer” on climate transition plans](#).

Through sustainable financing, BBVA supports the decarbonisation of its customers, especially large companies and their supply chains. For this purpose, BBVA has a [tool for sustainable financing of its corporate customers' supply chains](#). This tool uses a 20-question test to find out the state of sustainable development of its suppliers, as well as to establish decarbonisation targets for the supply chain to monitor its performance. The tool also provides financial benefits to [suppliers](#)

[that demonstrate compliance with GHG emission targets and/or other ESG targets](#). The data obtained by the tool can be used to estimate suppliers' total emissions and identify those that need greater support to improve their sustainable performance.

BBVA currently offers this product globally to its customers, being one of its applications a “sustainable confirming program” that incentivizes the collaboration between a company and its value chain to reach the proposed net zero objectives. As an example, BBVA has already implemented it with [Holcim in Colombia](#), with [Acciona in Spain](#) and with [Nestlé in Mexico](#). This initiative allows BBVA to offer low interest rates to the suppliers of these companies, which will depend on their environmental performance. With this program, more than 1,5k Nestlé suppliers could benefit from this initiative, which is even more relevant when considering that almost 95% of Nestlé emissions come from the supply chain.

BBVA has also participated in the development of an open-source methodology and tool called TILT. [This initiative provides banks with the necessary data, methodologies, and tools to assist and assess SMEs in their journey towards a net-zero future](#). Currently, TILT covers more than 700,000 EU companies from climate-relevant sectors such as land use, transport, power, energy, industry, chemicals and construction.

For more information [Sustainability-Linked Supply Chain Finance | BBVA](#)

PRODUCT TRACEABILITY AND TRANSPARENCY AS A DIFFERENTIAL VALUE

Conсорcio has established itself as a leading international company in the canned fish sector with a history that dates back to its origins in Cantabria (Spain) in 1950. In 2006 Conсорcio opened an industrial site in Peru where the majority of its workers are located (70% of the workforce) and which is considered to be one of the [largest anchovy fillet processing plants](#).

Conсорcio began its journey in sustainability as a result of a customer from its value chain that introduced the company into climate action. For this reason, Conсорcio tried to involve the value chain during all phases of the production process in their sustainability journey. One example of this is the project called “[Journey to the Origin](#)” that allows a public and transparent consultation of the species, date of capture, area, and method of fishing for each product. Such initiative was possible given the information compiled by Conсорcio from its suppliers and is in line with [Conсорcio’s legal obligation to monitor its production process as a company from the food sector](#).

Conсорcio also has a [mandatory sustainable provisioning policy](#) since 2014 that targets its product suppliers (anchovy, tuna and bonito). With this policy the company seeks to ensure that all the fishing they receive guarantees the maintenance, availability and sustainable use of fishing resources with the least negative effect on the environment. In the specific case of tuna, an [annual meeting is held with each supplier](#) so that instead of establishing fixed objectives, a process of continuous improvement is carried out where, through dialogue, they seek to increase the sustainability of tuna fishing.

All of these policies have enabled Conсорcio to achieve the [MSC Blue Seal for Sustainable Fishing](#) in 2017 and in 2020 the inscription to the [United Nations Principles for a Sustainable Ocean](#). Furthermore, [Conсорcio has launched a line of 100% sustainable products](#), that includes their raw material products with the MSC certificate (anchovy, tuna and bonito) with an environmentally friendly, plastic-free and completely recyclable packaging.

[For more information Sustainability Report | Conсорcio Group](#)

COFERDROZA

DIGITISATION AS A DRIVER TOWARDS AN IMPROVED SUPPLY CHAIN CLIMATE MANAGEMENT

Coferdroza is a cooperative created in 1965 in Zaragoza, that focuses on the distribution and sale of hardware, DIY and industrial supplies. At the moment, [Coferdroza has more than 381 members and 439 points of sale in Spain](#).

Coferdroza incorporates environmental commitment as part of its code of conduct, which determines the company’s business relations with its suppliers. In addition, Coferdroza has a quality management and environmental protection policy that [promotes awareness and training for the whole company](#) in these matters, especially the procurement staff.

In the decarbonisation route proposed by the company, the role of suppliers is key. With this purpose, Coferdroza participates in the Spanish Ministry of Industry, Trade and Tourism’s programme called [DIGITAIL](#). This project seeks to accelerate both the digital transformation and the sustainable transition of the supply chain with the use of Artificial Intelligence and Machine Learning. With these technologies Coferdroza can improve the traceability and distribution of its products, as well as integrate demand forecasting systems to enable the [optimisation of the supply chain management policy](#).

Coferdroza also aims to ensure that the company’s purchases are sustainable. For this purpose, Coferdroza evaluates the [environmental performance of its suppliers](#) in a continuous assessment that looks into the use of renewable energies, the calculation of their carbon footprint or whether they have a certified Environmental Management System. By doing so, Coferdroza checks whether or not the suppliers are aligned with the company’s environmental commitment. In addition, Coferdroza is finalising an [internal centralised management system](#) that will incorporate this evaluation model to guarantee the sustainability of the products and services purchased by the company.

For more information [CSR Plan | Coferdroza](#)

DANFOSS

A CUSTOMER-CENTRED APPROACH TO REACH NET ZERO

Danfoss is an international [technological company with solutions supporting energy optimization](#) and electrification in several applications, including mobile and industrial hydraulics, cooling and heating and electrical motors and infrastructure. Danfoss has a worldwide presence with 97 factories distributed across more than 20 countries, having its headquarters in Nordborg, Denmark.

Danfoss plans to [reduce the scope 3 of emissions](#) by 15% in 2030, a goal which complements its carbon neutral commitments for the Scope 1 and 2 in the same timeframe. Considering expected sales growth, Danfoss scope 3 objective represents a 65% reduction of own emissions in real terms, of which 20% will be achieved by the global decarbonization of the electricity grid and a further 40% through a mix of actions like product life cycle analysis, production system optimization, product efficiency... Most of Danfoss actions to reduce its scope 3 are product-related as most emissions come from the energy consumed during the customers' use of their products. As a result, Danfoss is working to continuously improve the energy performance of its products and solutions, including the use of Environmental Product Declarations to measure its climate impact.

Danfoss has also started to [demand further ESG ambition from its suppliers given the current international requirements](#) for greater transparency and environmental compliance of the supply chain. As a result, Danfoss [engages with its most carbon intensive supply chain partners](#) to identify concrete actions for CO2 emissions savings. With this purpose, in 2022-2023 Danfoss carried out interviews with its top 40 emitting suppliers, which accounts for a significant share of total scope 3 emissions, being a large majority of these companies' SMEs. These interviews helped Danfoss to assess and rate the suppliers maturity in relation to decarbonization.

In 2024, more suppliers will be contacted (covering most of scope 3.1 emissions) to assess their maturity. Danfoss will also focus on green raw material procurement (i.e. materials produced using renewable energy) for example by guiding and assisting suppliers in their own purchasing of raw materials. Finally key suppliers will be engaged through green power purchasing agreements signed by Danfoss to reduce their energy related emissions.

For more information [Annual Report | Danfoss](#)

INDIVIDUAL IMPROVEMENT PLANS TO SUPPORT SUPPLIERS' DECARBONISATION EFFORTS

With more than 170 years of history, Iberdrola is a global renewable energy and wind power producer, being one of the largest electricity companies in the world in terms of stock market capitalization. The Iberdrola group operates in dozens of countries but mainly in Spain, the United Kingdom, the United States, Brazil, and Mexico.

Iberdrola is committed to the global climate agenda and aims to [achieve carbon neutrality of all scopes before 2040](#) (scopes 1 and 2 by 2030), as validated by SBTi net-zero methodology. To accomplish this, it will be essential to involve all suppliers in the companies' sustainable trajectory and decarbonise their activities, which, according to data from 2022, are almost 20.000 companies. In 2006 Iberdrola launched its first Corporate Social Responsibility (CSR) assessment model for its suppliers in Spain, which was implemented globally in 2009.

Iberdrola's commitment of including ESG selection criteria for its main suppliers took shape in 2020 with the [objective of ensuring that at least 70% of the group's main suppliers are subject to sustainable policies and standards](#) by the end of 2022, increasing it to 85% for the 2023-2025 period. According to the 2022 sustainability report, the initial [goal was already met with 77% of Iberdrola's main suppliers](#) following sustainable policies.

These objectives were achieved thanks to [Iberdrola's sustainable evaluation model](#) that consists of 43 variables divided into 3 dimensions: Environmental, Social and Governance. For a supplier to be rated as "sustainable", it is necessary that the evaluation in each of the three blocks is 30% and the total score higher than 51 points out of 100 possible points. To measure and classify suppliers, Iberdrola uses a cloud-based system called [GoSupply](#), which is also used by other multinational companies such as Indra, Ferrovial or Acciona.

Iberdrola seeks to support its suppliers to be more sustainable with individualised improvement plans that indicate in which areas they need to improve and how. Also, [Iberdrola has a carbon footprint calculator to me-](#)

[asure scope 1 and 2 of emissions](#) with a simple questionnaire that is available online for free. Moreover, Iberdrola holds individual meetings with them to explore possible improvement actions and also training materials so that they can increase their ESG knowledge. [For the 2020-2022 period, 912 improvement plans were carried out](#), 57% of which have been effective in increasing the sustainability score of suppliers to the required level.

Iberdrola also tries to support its small suppliers with different initiatives, like the creation of a ["Climate Action Hub"](#) in Scotland with training materials for designing climate action plans, the support to the SME Climate Hub implementation in Spain, or a project in [Mexico](#) with Carbon Trust to assist in the calculation of the carbon footprint. Furthermore, Iberdrola organised in Spain, together with the UN Global Compact and Accenture, a workshop aimed at a first selection of national SMEs, a total of 40. The initiative was focused on the different incentives that promote sustainability in these companies, such as circularity, electric mobility or green energy. The workshop took place in May 2023 and input was obtained from the attendees, which represented an opportunity for everyone to continue improving.

Iberdrola considers training a key tool for engaging with its supply chain and for that purpose has strengthened its collaboration with the UN Global Compact Spain. In this sense, Iberdrola SME suppliers have also participated on the ["Sustainable Suppliers" programme of the UN Global Compact Spain, ICEX and ICO Foundation](#). More than 220 SME suppliers from Iberdrola joined the initiative and were able to access different resources like online courses, practical guides, templates for the preparation of policies and case studies of other companies.

For more information [Sustainability Report | Iberdrola](#)

SAINT GOBAIN

A JUST TRANSITION PLAN FOR THE SUPPLY CHAIN

Saint Gobain is a French multinational corporation founded in 1665 that designs, manufactures and distributes a variety of construction, high-performance, and other materials and solutions. The company operates in more than 75 countries and has more than 10.000 suppliers of materials. More than 60% of the company's emissions are classified within scope 3.

Saint Gobain has verified and certified its data for the 15 categories of scope 3 in line with the GHG protocol. The company has registered a Science Based Target for its scope 3 that has been validated by the initiative to be in line with a 1.5°C trajectory towards net zero emissions by 2050. Specifically, Saint Gobain has committed to reduce 15% of its absolute scope 3 GHG emissions by 2030 and 90% by 2050.

Over the past years, Saint Gobain has been implementing a control centre that links all its procurement and logistics CRMs to a control panel that monitors in real time its scope 3 emissions. Every time someone at Saint Gobain buys a raw material, goes on a business trip or hires a service, the company is capable of monitoring the carbon footprint of that activity and linking it to one of the scope 3 categories.

Saint Gobain also aims to work with the suppliers of raw material and those who transport their products to lower their emissions. The focus has been set on the local level to foster [inclusive growth](#) - in each country where it operates, the company forges partnerships with SMEs for technical support and know-how transfers by group employees. Saint Gobain works in favour

of development networks and local structures and participates in programs for the professional integration of young people marginalised from employment.

[Saint Gobain has a just transition plan that includes a strategy for its supply chain](#) focused on the creation of new collection and processing networks for construction waste. A more circular economy can lead to the emergence of new business models and, in some countries, these new sectors are opportunities for job creation for fragile and excluded people. The Saint-Gobain Foundation supports work integration projects linked to the emergence of more circular ecosystems.

Finally, to support its decarbonisation commitments through technological means, Saint Gobain will dedicate a targeted capital expenditure and R&D budget of around €100 million per year until 2030. In addition, two internal carbon prices are used and have been recently raised: €75 per ton for industrial investments and €150 per ton for R&D investment in breakthrough technology.

For more information [Just Transition Plan | Saint Gobain](#)

STELLANTIS

FINANCING SMALL SUPPLIERS' CLIMATE AMBITION TO REACH NET ZERO

Stellantis was created in 2021 from the merger of the automotive companies Fiat Chrysler Automobiles (FCA) and the French carmaker PSA Group, which includes brands such as Peugeot, Citroën and Opel. After the sum of these two companies, [Stellantis became the world's fourth-largest carmaker](#).

The value chain is one of the 3 main pillars from Stellantis' programme [Dare Forward 2030](#). This initiative has set a target of reducing Stellantis' carbon footprint by half by 2030 while having a production mix of 100% electric cars in Europe. At the moment, Stellantis is the leading company in Europe in sales of electric commercial vehicles. Also, Stellantis is committed to have a zero carbon footprint by 2038.

Within the Dare Forward 2030 program, Stellantis analysed how to limit and reduce its emissions from the vehicle design phase to the end of the vehicle's life cycle. To achieve this goal, [Stellantis started to include climate criteria when signing contracts with its suppliers](#).

In this regard, the company aims to have 95% of its value chain with carbon footprint reduction commitments by 2030 (currently 65% of suppliers comply with this) and to reduce its scope 3 emissions by 40% by 2030. In this sense, Stellantis has started to share its internal decarbonization strategy with its suppliers so that they can have some examples of actions that they can implement in their own plan.

In order to support its small suppliers to reach this objective, [Stellantis facilitates investment in innovation, in-house technology](#) and other long-term goods that can help to improve suppliers' environmental performance. In addition, [Stellantis also offers training and educational support for SME suppliers](#) while also encouraging them to establish training programs for employees. This is important when considering that more than 80% of Stellantis supply chain is composed of small and medium suppliers.

[Stellantis' Global Procurement Strategy demands 4 main requirements to suppliers.](#) First of all, suppliers must have an environmental management system, which is recommended to be ISO 14001 (61% of Stellantis suppliers already had ISO 14001). Secondly, suppliers are required to design their products as efficiently as possible while also committing to develop policies that bring their products to higher environmental standards. Furthermore, suppliers are required to provide a complete material breakdown of their products' components and to reduce the GHG emissions related to the production and transportation of their goods and services. The last requirement is that all suppliers need to be in line with Stellantis' zero carbon footprint target by 2038 and follow deforestation-free and land-use friendly policies.

In the event of non-compliance by the suppliers of these conditions, [Stellantis provides technical support in order to implement an action plan](#) to improve their environmental performance. The contract would be terminated if the planned actions are not conducted by the supplier.

For more information [Corporate Social Responsibility | Stellantis](#)

TELEFÓNICA

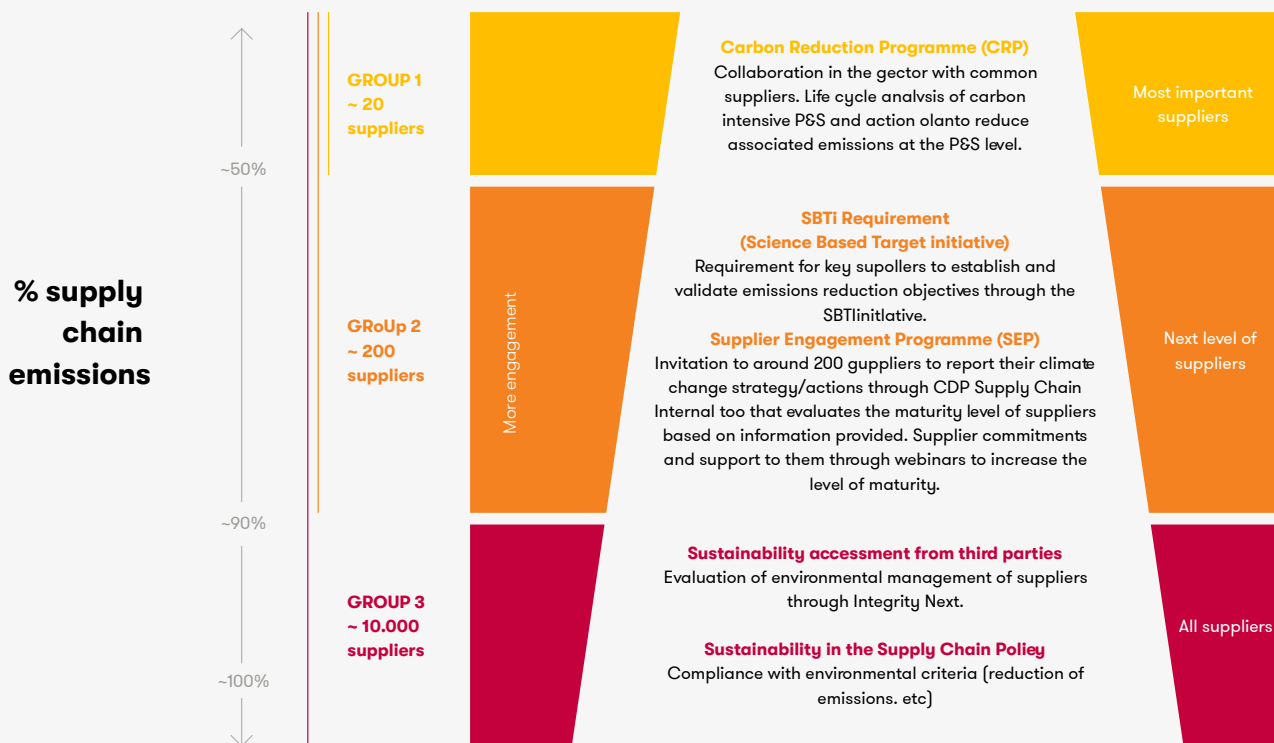
A CLIMATE ACTION PLAN WITH A FOCUS ON SUPPLIER ENGAGEMENT

Telefónica is among the largest telecommunications service providers in the world. The company offers fixed and mobile connectivity as well as a wide range of digital services for residential and business customers. With [more than 383 million customers, Telefónica operates in Europe and Latin America.](#) Telefónica is a 100% listed company, and its shares are traded on the Spanish Stock Market and on those in New York and Lima.

Telefónica commits to achieving zero net greenhouse gas emissions across the value chain by 2040. To reach its short-, medium- and long-term climate objectives, Telefónica has a Climate Action Plan in place, which is integrated into its strategy and governance model. While Telefónica has achieved significant reductions in their scope 1 and 2 emissions over the years, scope 3 emissions still represent a challenge with the latter representing 84,5 % of its total carbon footprint.

In this sense, Telefónica has established an [internal carbon price as a strategic lever to achieve net zero emissions by 2040.](#) Telefónica implements a shadow price in purchasing decisions for equipment that consumes electricity and/or fuel, as well as for equipment containing refrigerant gases. Telefónica's Corporate Instruction on low-carbon procurement includes the calculation of the Total Cost of Ownership (TCO) of this equipment, allowing procurement processes to be guided towards more efficient technologies and equipment during its useful life, with a lower carbon footprint. The internal carbon price will help the organisation to make better investment decisions and to achieve its emission reduction targets.

[Engagement with suppliers on carbon reduction is thus one of Telefónica's key strategic focuses](#) on the way to its net zero goal in 2040. Telefónica employs a targeted approach to engage its large base of suppliers, categorising them into three categories to tailor the various initiatives to a supplier's carbon intensity and maturity (see figure below). With this targeted supplier engagement strategy, Telefónica works hand-in-hand with its suppliers on the common journey towards becoming 1.5°C aligned.



GROUP 3

Telefónica mandates the acceptance of its Supply Chain Sustainability Policy from all of its suppliers, which encompasses not only requirements on carbon emissions, but also broader sustainability topics such as human rights. This contractual commitment is complemented by supplier assessments on sustainability in general and climate in particular via an external platform to identify carbon hot spots in the supply chain.

GROUP 2

Approximately 200 suppliers, which represent almost 90% of Telefónica’s supply chain emissions, are selected to participate in its so-called Supplier Engagement Programme. This initiative establishes a carbon maturity curve, categorising suppliers into five climate maturity levels based on concrete climate data provided by them through CDP. For each level, Telefónica identifies improvement areas, requesting supplier commitments to implement changes. The company supports suppliers on this journey through tailored training webinars. In addition, Telefónica requests top suppliers to establish science-based targets and have them validated by the Science Based Targets (SBTi) initiative.

GROUP 1

Telefónica invites its most carbon-intensive suppliers to join the so-called Carbon Reduction Programme. This collaborative initiative, involving other telecoms, focuses on reducing emissions at the product level. In partnership with its peers and suppliers, Telefónica seeks to practically reduce emissions related to the products sourced on the basis of Life Cycle Assessments (LCAs). In addition, Telefónica requests top suppliers to establish science-based targets and have them validated by the Science Based Targets (SBTi) initiative.

Lastly, Telefónica is also aware of its role as a driving force that can accelerate small and medium suppliers decarbonisation, which represent 55% of its value chain. Furthermore, in 2022 Telefónica also participated in a SME Climate Hub [pilot programme where its small and medium-sized suppliers were invited to participate](#).

For more information [Climate Action Plan | Telefónica](#)

TEXTIL SANTANDERINA

PROXIMITY SUPPLIERS TO REDUCE THEIR SUPPLY CHAIN EMISSIONS

Textil Santanderina is a textile company founded in 1963 in the town of Cabezón de la Sal in Cantabria (Spain). The company is part of the Santanderina Group, which is formed by [eleven centres and factories distributed in Catalonia, Galicia, Cantabria and northern Morocco](#), making it one of the largest textile groups in Spain.

[Due to law requirements](#), in 2005 Textil Santanderina started to calculate and verify the scope 1 and 2 of emissions, which allowed the company to start thinking in an early phase about how to measure and reduce its emissions. In this sense, last year the company started to measure its scope 3 of emissions, which represents 90% of its total emissions. Furthermore, approximately 60% of Santanderina's suppliers are small and medium suppliers.

Textil Santanderina has been collaborating since 2016 with the [“Fashion Industry Charter for Climate Action” \(FICCA\)](#) where the [company acquired the commitment to measure its emissions and to be aligned with the Paris Agreement](#). Textil Santanderina is also exploring with FICCA how to better align the management of the emission reductions commitments from its main suppliers.

Textil Santanderina aims to incorporate the proximity variable into its production to make it more environmentally friendly. Consequently, Textil Santanderina prioritises local suppliers to ensure a more efficient and sustainable supply chain. In this sense, all Santanderina's service suppliers are from the same region. Regarding the raw materials distributors, the company receives the cotton from Spain and the linen from Europe (with the [European Flax certification](#)). Also, Textil Santanderina promotes the [“Made In Europe”](#) initiative, through which it seeks to guarantee that all stages of production of its textile products are carried out in Europe. With this initiative Textil Santanderina wants to ensure that the company's value chain complies with the standards set by the company, that guarantees company's suppliers to commit to carbon footprint reduction and that their production is under EU regulation.

Lastly, Textil Santanderina recognises the evolution of the textile market, which is starting to demand closer monitoring of the suppliers sustainability. For this purpose, Textil Santanderina plans to require its suppliers to join the UN Global Compact and complete the [progress report](#). Textil Santanderina plans to use this reporting system instead of an internal one because it allows their suppliers to access useful training materials and the results obtained are more objective and comparable.

For more information [Green Transition Plan | Textil Santanderina](#)

FINAL POSITION PAPER W.3 CITIZEN LEADERSHIP

CITIZEN LEADERSHIP TO ACHIEVE NET ZERO





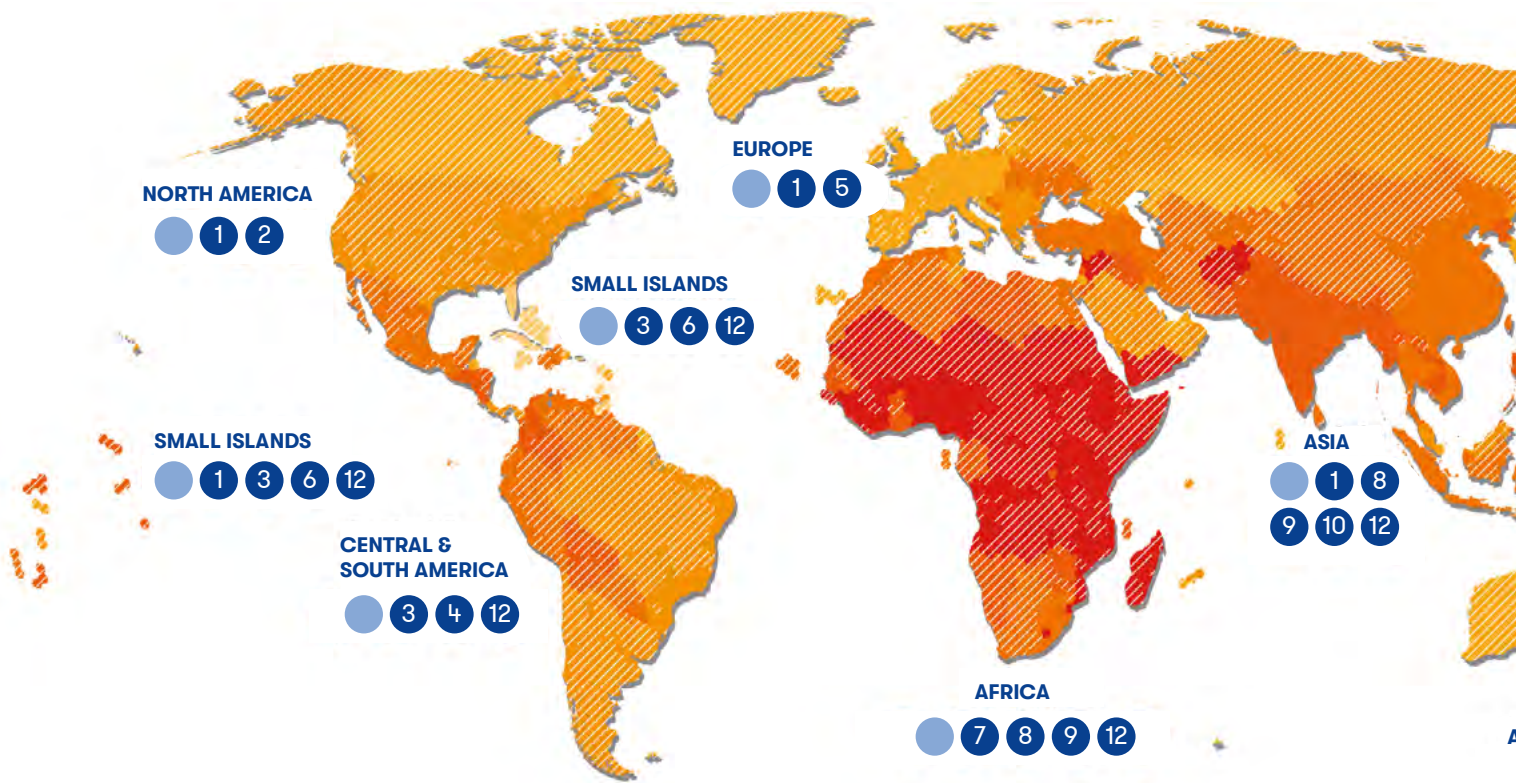
1. INTRODUCTION AND CONTEXT

Current climate pledges are leading us to a temperature rise of 2.4–2.8 degrees Celsius by the end of the 21st century. The world's temperature has already increased by 1.1 degree Celsius compared to the late 19th century. In 2023, the planet's temperature broke consecutive records, experiencing the hottest July, August, September and October in history, ultimately making 2023 the hottest year ever recorded. The Paris Agreement emphasizes the need to limit temperature rise to 1.5 degree Celsius to prevent the worst impacts of climate change. To achieve this goal, we need to cut emissions in half by 2030 and reach net zero CO₂ emissions by 2050. The Energy Sector accounts for 75% of global emissions, due to oil, gas, and coal. Deforestation driven by agriculture and land-use change represents an additional 15% of this total. To achieve net zero, it is urgent to phase out fossil fuels and promote a transition to renewable and clean energy sources. Further, deforestation must be halted by 2030.

Humanity is already facing the impacts of a warming planet, with devastating events increasingly occurring around the globe. In 2023, severe heatwaves hit many countries, such as the US, Mexico, Southern Europe, and China. The Amazon region was severely impacted by droughts, and devastating floods happened in Libya, claiming over 11,000 lives. These are just some examples; the overall conclusion is that planetary climate is reaching extremes. Those most impacted by this crisis are poor and vulnerable populations, which have the least resources to adapt and bear the least responsibility for causing the problem in the first place, given their low pattern of emissions.

Developing countries, especially the least developed ones, are the most vulnerable to disasters. Moreover, they are not responsible for historically nor presently high levels of emissions. While each person living in a developed economy emits an average of 10.6 tCO₂ (2017), average developing nations' citizens emit three times less, 3.4 tCO₂. The graph below illustrates how climate vulnerability is distributed across the globe, coupled with the presence of especially vulnerable populations. Developed countries present a low to very low vulnerability to climate impacts, while developing nations present medium to very high vulnerability.

Observed human vulnerability differs between and within countries and strongly determines how climate hazards impact people and society. (a) Map of observed human vulnerability based on two comprehensive global indicator-systems using national data, plus examples of selected local vulnerable populations and Indigenous Peoples



Relative vulnerability

- Very high
- High
- Medium
- Low
- Very low

Population density

- High
- Low

● **Examples of Indigenous Peoples with high vulnerability to climate change and climate change responses** (4.3.8, 5.10.2, 5.13.5, Box 7.1, 8.2.1, 15.6.4) and the importance of Indigenous Knowledge (Box 9.2.1, 11.4, 14.4, Cross-Chapter Box INDIG)

- 1 **Indigenous Peoples of the Arctic** | health inequality, limited access to subsistence resources and culture | CCP 6.2.3, CCP 6.3.1
- 2 **Urban ethnic minorities** | structural inequality, marginalisation, exclusion from planning processes | 14.5.9, 14.5.5, 6.3.6
- 3 **Smallholder coffee producers** | limited market access & stability, single crop dependency, limited institutional support | 5.4.2
- 4 **Indigenous Peoples in the Amazon** | land degradation, deforestation, poverty, lack of support | 8.2.1, Box 8.6
- 5 **Older people, especially those poor & socially isolated** | health issues, disability, limited access to support | 8.2.1, 13.7.1, 6.2.3, 7.1.7
- 6 **Island communities** | limited land, population growth and coastal ecosystem degradation | 15.3.2
- 7 **Children in rural low-income communities** | food insecurity, sensitivity to undernutrition and disease | 5.12.3
- 8 **People uprooted by conflict in the Near East and Sahel** | prolonged temporary status, limited mobility | Box 8.1, Box 8.4
- 9 **Women & non-binary** | limited access to & control over resources, .g. water, land, credit | Box 9.1, CCB-GENDER, 4.8.3, 5.4.2, 10.3.3
- 10 **Migrants** | informal status, limited access to health services & shelter, exclusion from decision-making processes | 6.3.6, Box 10.2
- 11 **Aboriginal and Torres Strait Islander Peoples** | poverty, food & housing insecurity, dislocation from community | 11.4.1
- 12 **People living in informal settlements** | poverty, limited basic services & often located in areas with high exposure to climate hazards | 6.2.3, Box 9.1, 9.9, 10.4.6, 12.3.2, 12.3.5, 15.3.4

Children are disproportionately affected by the harmful consequences of climate change. According to UNICEF, approximately 1 billion children are at an 'extremely high risk' of the impacts of the climate crisis. And the World Health Organization estimates that reducing environmental risks could prevent 1 in 4 child deaths. Malnutrition, infectious disease, and physical trauma

resulting from weather-related disasters, such as floods, droughts, cyclones, and hurricanes, as well as deadly heatwaves, pose a significant burden on children's health due to their immature regulatory system. Therefore, it is crucial that any effective strategy to prevent and adapt to climate change must be centered around children.



Women also face higher risks from climate change impacts, with women bearing greater burdens due to existing roles, responsibilities, and cultural norms. For instance, recent data suggest that 80% of people displaced by climate change are women, exacerbating their risk of violence, including sexual violence. Moreover, gender disparities impoverish women, reduce their adaptive capacity, and increase their exposure to climate risks. Gender equality is a fundamental human right

and a driver of economic growth. Evidence suggests that advancing women's equality could add USD 12 trillion to the annual global GDP by 2025. Furthermore, women possess unique knowledge and capacity to promote the solutions needed to address the climate crisis, as they are often more connected to community dynamics and to the management of natural resources. Therefore, to be successful, existing climate finance mechanisms should target and involve women and men equitably in their implementation. Further, climate investments that are gender-responsive should be prioritized.

Indigenous populations are particularly vulnerable to climate impacts due to their proximity and dependence upon nature and environmental resources. Additionally, climate change exacerbates existing threats, such as political and economic marginalization, loss of land and resources, human rights violations, discrimination, and unemployment. Despite being one of the most vul-

nerable populations, indigenous peoples have access to important solutions to this crisis. Their territories encompass up to 22% of the global land surface, protecting 80 per cent of planet's biodiversity. This is because territories governed by indigenous peoples, who have had their rights to lands and waters guaranteed, are better conserved than adjacent areas. Although they represent only 6.2% of the world's population, they account for 18.7% of the world's extreme poor, which is another aspect of vulnerability. This data highlights they are not adequately rewarded for the key role they play in climate change mitigation and adaptation. To change this situation, climate finance mechanisms should be used to promote benefit-sharing, encompassing the fair payment of ecosystem services, and incorporate social and environmental safeguards to protect the human rights of indigenous peoples, including the right to prior, free, and informed consultations.

To be just and equitable, all efforts aimed at promoting net-zero must consider the most vulnerable communities to climate change. We need to align climate finance initiatives and NDCs with the needs of vulnerable communities, ensuring that effective measures are taken to both increase their resilience to climate impacts and promote a better quality of life.

It is pivotal that these groups, characterized by a more efficient use of resources, lower emissions, and higher vulnerability to be enfranchised and strengthened in a role of leading the way towards a more sustainable and resilient planet. Only 2% of global climate finance, is reaching small farmers, indigenous peoples, and local communities in developing countries. It is urgent that climate finance mechanisms include vulnerable populations as their recipients, and that resources reach those who need them the most. Furthermore, it is crucial for leadership roles to incorporate these groups in decision-making processes and to ensure net-zero pledges enhance resilience, protect their rights, and create opportunities for those who are the most vulnerable to climate change impacts.

2. CLIMATE FINANCE FOR THE MOST VULNERABLE

The climate crisis has several competing crises: recovering from the COVID pandemic, the emergence of new conflicts, the current and impending catastrophic consequences of biodiversity loss, and escalating issue of social inequality, to name a few. The current economic model has generated unprecedented wealth but at the expense of an also unprecedented nature destruction, depletion of natural resources, crossing of planetary boundaries, and an exacerbation of profound social inequalities. In 2019, the emissions from the richest 1% of the world's population equalled those of the poorest 66% of humanity (5 billion people). While some countries have managed to develop and accumulate wealth and resources during this period, others continue to grapple with basic human problems, such as extreme poverty, lack of access to water and sanitation, amongst others. In this complex scenario, nations are confronted with concurrent crisis and the challenge to equitably allocating resources efficiently address these multifaceted issues. Additionally, the recent COVID crisis has strained public budgets, reducing fiscal capacity to deal with sustainable development challenges and the climate crisis.

Many countries are still grappling with the fiscal impact of the pandemic, which has led to increased public debts and constrained national budgets. Consequently, there are fewer resources available to tackle the climate crisis, raising the challenge of how to mobilize additional sources of revenue to fund Transition Plans and climate finance mechanisms, such as the Green Climate Fund, the Global Adaptation Facility, the Adaptation Fund and the newly created Loss and Damage Fund. Developed countries have committed to providing USD 100 billion per year in climate finance to assist develo-

ping nations in effectively tackling the climate crisis. However, as of now, this target has not been met. Out of the USD 83.3 billion in climate finance mobilized by developed countries in 2020, only USD 21 – 24.5 billion can be considered real support. This is because approximately 75% of the total consisted of loans, which not only increase recipient countries' debt but also constrain their fiscal capacity to address the climate crisis with their own budget.

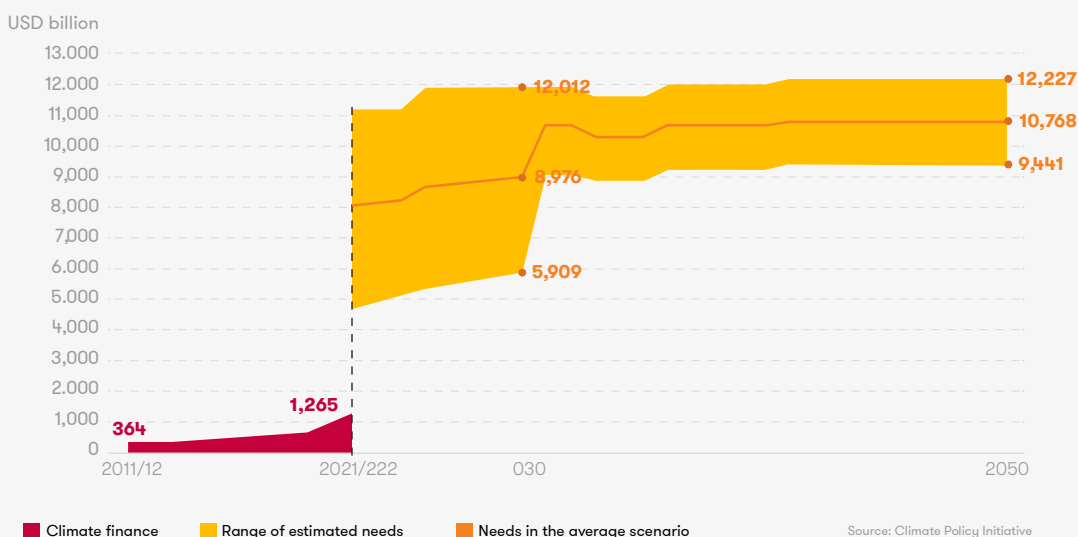
In response to the insufficient availability of public funds, new economic architectures are integrating public and private finance to de-risk climate investments, particularly in emerging markets and developing countries. The world needs to leverage existing resources and funds, including pension funds, to redirect private capital towards net zero initiatives. Financial markets have introduced numerous mechanisms to achieve this, ranging from climate bonds to regulated and voluntary carbon markets, and fiscal policies. One of the challenges ahead is how to expand these investment pipelines, attracting more resources to the count, and incorporate more comprehensive elements into these projects, such as social inclusion, protection, adaptation, community resilience, innovation, and technology transfer.

Another challenge is to ensure these financial movements reach those who need them the most and are transparent so that the world can keep track of solutions to its biggest crisis. Global climate finance flows amounted to USD 1.27 trillion per year in the biennial of 2021/2022, while the actual amount necessary to adequately address the climate crisis was at least around USD 5 trillion per year. This data highlights a significant gap of over USD 3 trillion annually that needs to be bridged by the end of this decade if we want to curb emissions and align ourselves with the path to achieve the Paris Agreement goal of keeping global warming well below 2 degrees Celsius. Additionally, as per the First Global Stocktake approved at COP28 under the Paris Agreement, developing countries are estimated to require an average of USD 5.8–5.9 trillion to implement their Nationally Determined Contributions (NDCs) for the pre-2030 period.

Although the investment is still insufficient, it has almost doubled in comparison with the previous biennial (2019/20), when climate finance amounted to USD 632 billion per year. This means we are already moving in the right direction, and there is enough space to grow, given that nowadays climate finance flows represent about only 1% of global GDP. The First Global Stocktake, approved at COP28, has noted that 87% of the global economy in terms of share of GDP is covered by targets for climate neutrality. This indicates that nearly the entire economy must transition to a low-carbon pathway, and sufficient funds will be required to implement those strategies.

It is important to highlight, however, that these investments are not reaching the poorest and most vulnerable populations. The great majority of the climate finance is going to energy and transport, with 84% of the global total concentrated within developed economies in East Asia and the Pacific, the US and Canada, and Western Europe. Less than 3% of the global total (USD 30 billions) went to the Least Developed Countries (LDCs), and the ten countries most affected by climate change between 2000 and 2019 only received less than 2% of total climate finance (USD 23 billions). Additionally, 17% of public finance going to LDCs is in the form of market-rate debt, increasing already substantial debt burdens.

Global tracked climate finance and average estimated annual needs through 2050

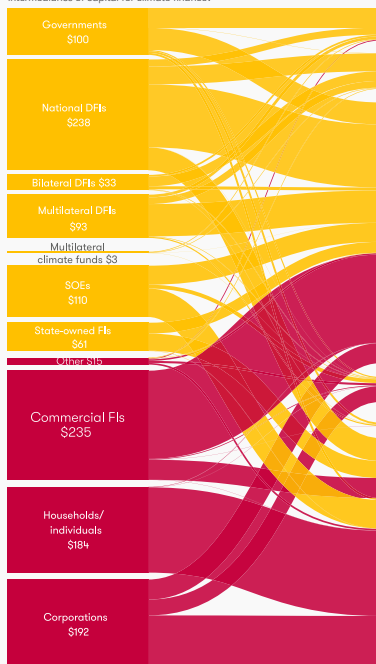


LANDSCAPE OF CLIMATE FINANCE IN 2021/2022

Global climate finance flows along their life cycle in 2021 and 2022. Values are averages of two years' data to smooth out fluctuations, in USD billions

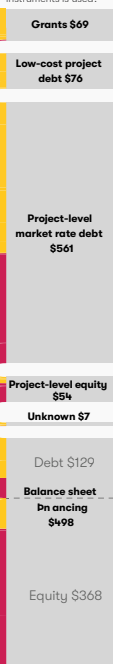
SOURCES AND INTERMEDIARIES

Which type of organizations are sources or intermediaries of capital for climate finance?



INSTRUMENTS

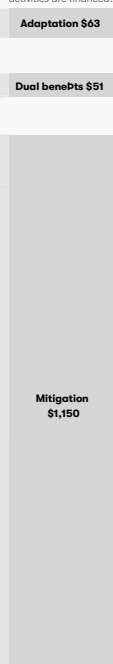
What mix of financial instruments is used?



1.27 TRILLION USD ANNUAL AVERAGE

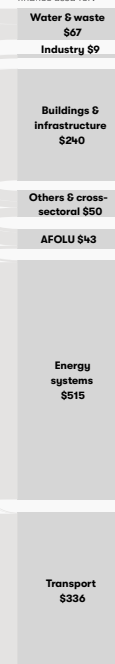
USES

What types of activities are financed?



SECTORS

What is the finance used for?



Public Private

*"Other" public sources include export credit agencies and unknown public funds

*"Other" private sources include institutional investors, funds, and unknown

*"AFOLU" stands for agriculture, forestry, other land use, and fisheries. *"Others & cross-sectoral" includes \$6bn unknown

Source: Climate Policy Initiative

Adaptation finance was responsible for only USD 63 billions of this total, with USD 1.15 trillion going to mitigation. However, adaptation needs for developing countries alone is of USD 212 billion per year until 2030. There is also a pressing need for more funding to resilient infrastructures, especially in urban areas, considering that currently 55% of the world's population reside in cities, and this percentage is expected to increase to 68% by 2050. Nature-Based Solutions can appear as a component to adaptation funding to improve ecosystem services and provide other co-benefits to urban and rural populations, such as food production, access to clean water, green jobs creation, amongst others.

According to the Global Stocktake, current NDCs are projected to result in a 2% reduction in emissions by 2030 compared to 2019 levels. However, the document also highlights that limiting global warming to 1.5 degree Celsius requires a much more substantial reduction – 43% by 2030 relative to the 2019 level and reaching net zero emissions by 2050. Thus, even if countries mobilize sufficient resources to implement their NDCs, these efforts alone will fall short of the necessary emissions reduction to align with the Paris Agreement's goal of ensuring a safe future for all.

It is evident that mobilizing resources for NDCs is only part of the solution. The world must urgently transition away from fossil fuels, the primary source of emissions. Additionally, there is a need to reduce energy demands, particularly in developed nations with high consumer patterns. Achieving this requires reimagining our ways of living and embracing less impactful lifestyles. Valuable lessons can be drawn from the cultures of indigenous peoples, that beyond being one of the most vulnerable communities do climate impacts, also offer many of the solutions we need to solve this problem.

3. GLOBAL GOVERNANCE FOR CLIMATE FINANCE JUSTICE

During COP 28, countries agreed that it is necessary to triple our global renewable energy capacity and to double the global average annual rate of energy efficiency improvements by 2030 to keep the world in line with the 1.5-degree pathway. However, we must be cautious to avoid transitioning to a decarbonized economy within a more unequal and polarized world. As stated previously, 84% of climate finance flows are going to the energy and transport sector in developed nations, while the ten countries most affected by climate change received less than 2% of the total. The format of this finance also needs to be discussed. Only 3% of climate finance is going to the Least Developed Countries (LDCs), and 17% out of this share is in the form of market-rate debt, further constraining these countries' budgets and burdening them with more debt.

Although international climate finance commitments are not being met, internally developed countries have been able to mobilize their national budgets to transition to a Green Economy. Such 'Green Deals', approved since the COVID-19 economic crisis to enhance sustainable growth, have been integrating goals of increased employment and social protection and technology advancements for a green economy in an extremely competitive approach in terms of international trade and development. The United States, via the Inflation Reduction Act (IRA), will spur about USD 3 trillion investment in renewable energy technology. And the European Union, via the European Green Deal, has pledged to mobilize USD 1 trillion in sustainable investments until 2030. Their strategies are setting market trends, advancing new technologies likely to become mainstream in transitioning economies. However, developing countries, lacking the fiscal capacity to approve such extensive investments, have had limited time to adapt to new market guidelines within the interconnected global chain of services and products.

New intellectual property arrangements can be established to facilitate the transfer of technology from developed countries to developing ones, especially considering that the former have invested more resources in research and development of new technologies and the infrastructure systems to advance them. One promising solution could involve the creation of Intellectual Property Banks, to facilitate the sharing of knowledge and new technologies, and ensure more widespread access and utilization, particularly in less economically developed regions. A good example was set by the Government of Costa Rica during the pandemic. They launched the COVID-19 Technology Access Pool (C-TAP), which provided a global platform for developers of COVID-19 health products to share their intellectual property, knowledge, and data. Such platforms could be used to support technology transfer agreements between developed and developing countries, ensuring innovative climate solutions are implemented worldwide.

The role of all key stakeholder in the multilateral system will have to be discussed to deliver climate finance justice, including countries, the private sector, the Multilateral Development Banks (MDBs), donors and private philanthropy. Developed nations should rise to their responsibility to provide developing ones with the means to promote more ambitious climate action. For instance, developed countries must triple the amount of bilateral concessional finance by 2030 to deliver on the Paris Agreement. Further, new, and additional grant-based initiatives need to be scaled up, and non-debt instruments need to be prioritized when delivering climate finance. Philanthropic investments play a key role in this endeavour, allowing funds to reach grassroots organisations and empowering citizens on the ground.

Moreover, there is an urgent demand for reform of the global financial architecture, including Bretton-Woods institutions and other financial institutions, such as Multilateral Development Banks (MDBs). The G20 International Financial Architecture Working Group convened in January 2024, under the presidency of Brazil, to discuss the reevaluation of developing countries' debt, the promotion of resilient capital flows, and the role of development banks. As discussed previously in this document, the compounding crisis, including the COVID 19 pandemic and the climate crisis, have left countries with limited fiscal capacity for investments in both mitigation and adaptation, placing a heavier burden on developing nations.

The G20 is building upon last year's discussions promoted by the Bridgetown Initiative. The reform agenda encompasses liquidity support and debt restructuring for poor countries. Championed by Prime Minister Motley of Barbados, the initiative was discussed in the Summit for a New Global Financing Pact held in Paris in June 2023, led by President Macron. The agenda shifts away from transfers funded by taxpayer money to a polluter-pay principle, ensuring that concessional resources flow from richer countries to low-income and conflict affected countries. One of the proposals was to fast-track the transfer of USD 100 billion in Special Drawing Rights (SDR) to climate resilience programs in low-income countries. Another proposal was to allow countries to divert debt payment to disaster relief. The reform would help bridge the gap in much-needed climate finance, such as adaptation and loss and damage finance, and provide the means to ensure that resources reach the most vulnerable populations.

Multilateral Development Banks can also contribute by integrating data and harmonizing reporting methodologies into the financial framework. Green and social taxonomies can play a critical role in providing criteria for the delivery of climate finance resources. The climate and sustainable development agendas can be

harmonized with the use of indicators, such as the Sustainable Development Goals (SDGs), to promote transparency and ensure just transition guidelines are being followed. Additionally, financial and sustainability disclosures can be utilized to report on the observation of human rights, among other aspects. For instance, the Renewable Energy and Human Rights Benchmark report (2023) was able to show that only 27% of analysed companies were committed to just transition principles, according to their sustainability reports. Transparency and disclosure efforts can spotlight indicators and topics that support a just and equitable transition, conditioning investments on their fulfilment.

4. CITIZENS FOR CLIMATE FINANCE JUSTICE

It is urgent for climate finance monitoring and evaluation frameworks to adopt a more holistic approach, incorporating comprehensive elements into initiatives, such as social inclusion, protection, adaptation, and community resilience for the most vulnerable. The climate and sustainable development agendas need to be harmonized, with green and social taxonomies playing a key role in providing criteria for the delivery of resources. Social participation and transparency are also crucial aspects of these efforts. For instance, climate finance stakeholders, including MDBs, donor governments, companies, and philanthropies, should prioritize investments that are gender-responsive. Additionally, they should incorporate social and environmental safeguards to protect the human rights local communities, ensuring their right to prior, free, and informed consultations.

With mainstreamed and qualified information available, citizens can play a decisive role in ensuring climate policies and investments reach those who are most vulnerable to this crisis. Recent research indicates that 95% of millennials are interested in sustainable investing, underscoring the growing importance of socially and environmentally conscious financial choices. Citizens wield consumer power and can influence where they choose to place their investments. For instance, impact investment is emerging as a trend, channelling funds into initiatives that not only promise a return in profitability for investors but also contribute to positive social and environmental outcomes. Additionally, consumers have started movements to scrutinize companies' sustainability commitments to distinguish genuine efforts from mere greenwashing. Citizens are also becoming more aware about how their consumer choices impact people, the planet, and the economy. Rethinking consumption is critical and must be incentivized through policies that reward sustainable and fair practices.

Citizens can exert pressure on their governments to align with more ambitious climate action by actively engaging in participatory processes. Decision-making processes need to be designed to receive citizen's inputs and give people a say in the decisions that affect them, both in private and public instances. Participatory mechanisms and processes can drive and accelerate transformative cycles of change, building public support for just transition initiatives and enabling greater transparency and accountability. Transition policies need to reflect societies' long-term needs and wants, promoting inclusion and holding governments and corporations accountable for their commitments.

A wide range of participatory mechanisms are being applied by citizens worldwide to promote a fair and equitable transition. For instance, South Africa's Presidential Climate Commission is an independent multistakeholder body which is engaging ordinary citizens in the country's just transition strategy. Citizens assemblies have been gathering in Europe to deliberate upon and help build legitimacy for climate policy. In February 2024, Parisians have voted in a referendum in France to triple parking costs for SUV's cars, aimed at addressing the higher fossil fuel consumption associated with these vehicles. And climate litigation is holding governments and corporations accountable for their inaction on climate goals and commitments using legal mechanisms.

Climate litigation initiatives have more than doubled in five years, exerting significant pressure on governments and companies to align with policies compatible with a 1.5-degree pathway. Notably, a Dutch court has ordered the fossil fuel company Shell to comply with the Paris Agreement and to reduce its emissions by 45% from 2019 levels by 2030. Furthermore, the Brazil's Supreme Court has affirmed that the Paris Agreement holds the status of a human rights treaty, lending it constitutional weight.

To maintain and amplify citizens' initiatives to push action, all actors of society, must engage in communication efforts aimed at translating to the wider audience the benefits of strong climate policies. People are increasingly becoming in favour of strong climate policies, and effective communication of these can amplify this trend and enhance trust in government and democratic institutions.

Civil society, universities and technical institutions can act to disseminate knowledge and strengthen vulnerable communities to access opportunities in a just transition. Funding from philanthropies is crucial to promote such initiatives and must be galvanized to reach initiatives on the ground. Opensource materials and trainings on sustainability could be mainstreamed across all careers, ensuring all professionals understand the risks and opportunities associated with a just transition. Additionally, capacity building projects and communication efforts should be aimed at disseminating rights, providing access to capital, and strengthening and enabling social participation for the most vulnerable communities.

Moving beyond participation mechanisms, citizens must strengthen democratic processes and support candidates committed to climate action. One of the most effective ways to ensure that governments are truly aligned with the just transition agenda is to place individuals in decision-making positions who are committed to it. All actors, including but not limited to civil society, must engage in efforts to promote fair debates and credible information during elections, and support the campaigns of candidates committed to the just transition.

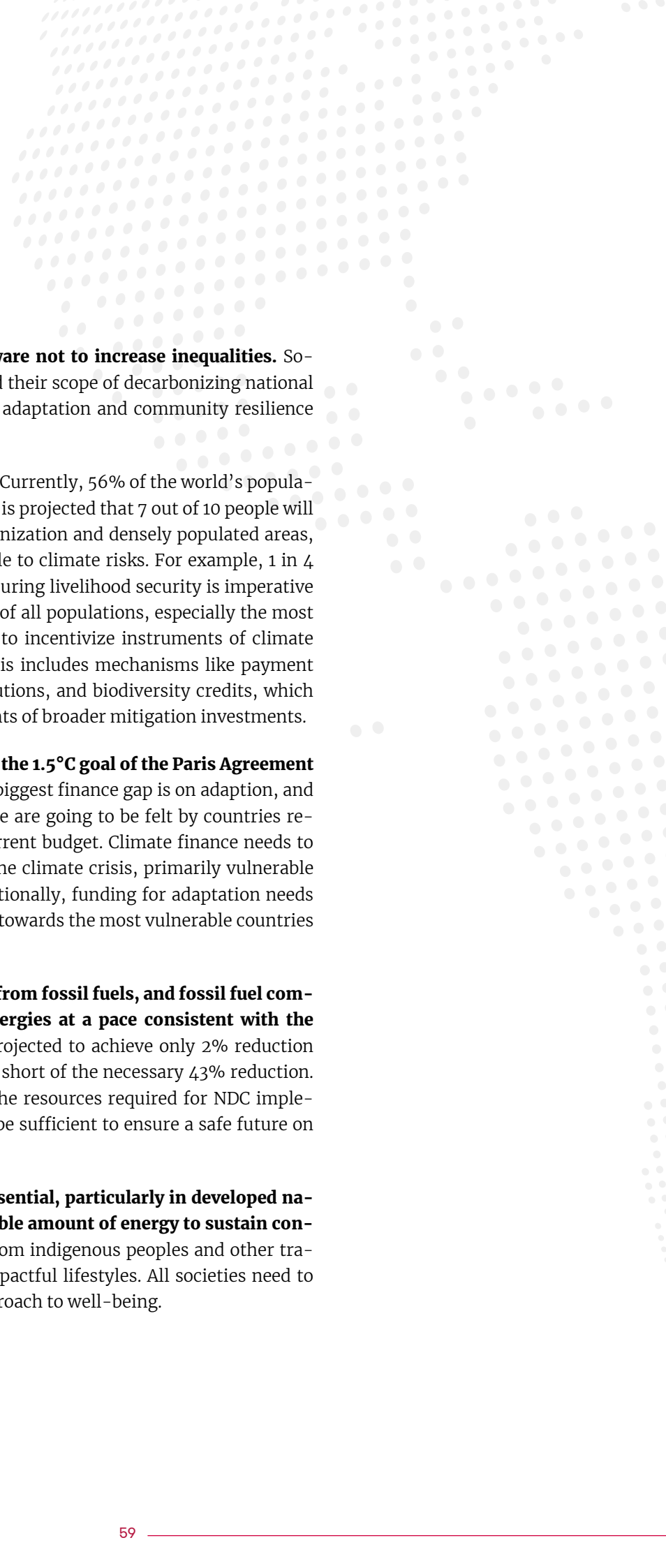
Ensuring accountability post-election and post-deliberation is also crucial. Support to social movements and civil society initiatives, such as youth groups, must be galvanized to ensure greater mobilization. Campaigning, lobbying and advocacy, strategic litigation, protest action and building solidarity through communication strategies are all effective mechanisms to advance the just transition agenda. For instance, The Good Lobby is an advocacy initiative that promotes consulting, research and training to grassroots movements, NGOs, philanthropies, and progressive companies to advance the climate agenda.

5. CONCLUSIONS

Decarbonization efforts and net-zero commitments are at the centre of economic and financial discussions. The world is increasingly mobilizing resources to address the climate crisis, and new financial architectures are being developed to channel both private and public investments into this endeavor. Although the amount of finance remains insufficient, there is a promising movement that has started and has abundant space to grow.

Funding should primarily flow from developed countries towards developing ones, considering that the former has had the opportunity to develop their economies and accumulate wealth through the consumption of fossil fuels, while the latter concentrates the highest levels of global vulnerability. Developed nations need to increase their financial contributions so that developing ones can adequately address the climate crisis. Developed countries need to leverage concessional, grant-based, and non-debt financial mechanisms, and adopt proposed reforms to the global financial architecture to ensure funding reaches the most vulnerable nations. There is an urgent need to reform the current global financial architecture, to provide liquidity support and promote debt restructuring to particularly vulnerable countries, so they can have fiscal space to address the most pressing issues of the climate crisis.

The relationship between Global North and Global South must be reimagined to move beyond extractive products and encompass investments in technology and innovation to promote green industrialization and create high-quality jobs. Developed economies still possess most of the technology and intellectual property necessary to promote a net-zero transition. Partnerships between developed countries and developed ones must also be reimagined to encompass new designs of intellectual property that facilitate technology transfer and knowledge-sharing practices. This is essential to enable vulnerable countries to respond effectively to the climate crisis. Furthermore, partnerships between governments, including the private sector, must be equitable, promoting civil society participation and upholding high standards of human rights observation.



Green New Deals approved should be aware not to increase inequalities. Sovereign transition plans need to go beyond their scope of decarbonizing national economies and ensure they also promote adaptation and community resilience through policies of social protection.

Adaptation efforts must prioritize cities. Currently, 56% of the world's population resides in urban areas, and by 2050, it is projected that 7 out of 10 people will live in cities. With this trend of rapid urbanization and densely populated areas, cities are becoming increasingly vulnerable to climate risks. For example, 1 in 4 people lives in high-risk flood zones. Ensuring livelihood security is imperative to uphold the basic rights and well-being of all populations, especially the most vulnerable communities. There is a need to incentivize instruments of climate finance that enhance urban resilience. This includes mechanisms like payment for ecosystem services, nature-based solutions, and biodiversity credits, which should be recognized as significant elements of broader mitigation investments.

Governments need to align their NDCs to the 1.5°C goal of the Paris Agreement and expand funding for adaptation. The biggest finance gap is on adaptation, and the most severe impacts of climate change are going to be felt by countries receiving an insignificant amount of the current budget. Climate finance needs to reach those who are more vulnerable to the climate crisis, primarily vulnerable populations in developing countries. Additionally, funding for adaptation needs to increase drastically, especially directed towards the most vulnerable countries to climate change.

Countries urgently need to cut subsidies from fossil fuels, and fossil fuel companies must transition to renewable energies at a pace consistent with the 1.5-degree pathway. Current NDCs are projected to achieve only 2% reduction in emissions by 2030, falling significantly short of the necessary 43% reduction. Even if climate finance flows align with the resources required for NDC implementation, these efforts alone would not be sufficient to ensure a safe future on Earth.

Reimagining current ways of living is essential, particularly in developed nations where citizens demand a considerable amount of energy to sustain consumer patterns. We must draw lessons from indigenous peoples and other traditional communities on adopting less impactful lifestyles. All societies need to learn and embrace a more responsible approach to well-being.

6. RECOMMENDATIONS

When addressing the climate crisis, it is crucial to re-think our economic and social model to create a more sustainable present and future that is, at the same time, carbon-neutral, more resilient, socially inclusive, and equitable.

Citizens are at the forefront of shaping this reimagined society, but still, this movements are far from enough. They are participating in climate litigation initiatives that demand fossil fuel companies reduce emissions. Millennials are making impact investments and opting for conscious consumer choices. Regular citizens are engaging in participatory processes and voting for politicians committed to climate action.

Citizens are also leading global movements, demanding that governments and companies take action on key points suggested in our recommendations below. By implementing these recommendations, all sectors of society can collaborate to building citizen capacity and addressing the challenges posed by the climate crisis.

- Governments should enhance the ambition of their NDCs by establishing a deadline for phasing out fossil fuels, aligning the timeline with the goal of limiting global warming to 1.5–2 degrees Celsius.
- All actors should increase funding for adaptation, prioritizing cities and promoting initiatives that enhance urban resilience and generate green jobs, such as Nature-Based Solutions.
- NDCs and climate finance strategies, public and private, should center around the needs of the most vulnerable communities do climate change, incorporating gender-responsive approaches and implementing social and environmental safeguards to protect and promote the human rights of local communities, including the right to prior, free, and informed consultations.

- Decision-making processes, including the revision of NDCs, should be redesigned as inclusive and participatory, promoting the engagement of vulnerable communities, including indigenous peoples, youths, women, and children.

- Developed countries should transfer technology to developing ones and provide funding to enable the latter to develop and implement national technologies.

- Developed countries should prioritize grant-based and non-debt instruments to provide climate finance to developing nations, particularly the most vulnerable ones.

- Multilateral Development Banks should harmonize reporting methodologies within the financial framework, integrating green and social taxonomies, and establishing clear criteria for the adoption of just transition guidelines.

- Climate finance mechanisms should incorporate the promotion of benefit-sharing with local communities, including the fair payment of ecosystem services and the generation of local employment opportunities. This can be achieved through the implementation of, but not limited to, Nature-Based Solutions.

- Climate finance monitoring and frameworks should include comprehensive components to projects, such as gender-responsive approaches, observation of human rights, and adaptation measures, including but not limited to Nature-Based Solutions.

· Civil society, universities and technical institutions must take action to disseminate knowledge and strengthen vulnerable communities, enabling them to access opportunities in a just transition and participate effectively in decision-making processes.

· Philanthropic institutions and other organizations with the capacity to fund projects should promote initiatives to train and mobilize citizens on the ground, with a special focus on vulnerable groups such as indigenous peoples, women, youth, and children.

· Governments, companies, and civil society should engage in mass communication efforts to convey the benefits of strong climate policies, creating a social mandate for a just and fair transition, including the use of social media platforms.

· All actors, including civil society, must actively work to promote fair debates and provide credible information during elections. They should also support the campaigns of candidates committed to a just transition.

· Philanthropic investments play a key role in this endeavour, allowing funds to reach grassroots organisations and empowering citizens on the ground.

· Citizens, with a special focus on the wealthiest 1%, should change their consumption patterns by reducing energy demands and supporting sustainable practices.

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