G20 INDONESIA 2022

G20 SUSTAINABLE FINANCE WORKING GROUP

# 2022 G20 SUSTAINABLE FINANCE REPORT

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# Executive Summary

This report summarizes the work of the Sustainable Finance Working Group (SFWG) in 2022. SFWG work has been anchored in the G20 Sustainable Finance Roadmap (the "Roadmap") actions, endorsed as voluntary by G20 Leaders at the 2021 Rome Summit, and recognized earlier this year by the G20 FMCBGs as critical to the achievement of the 2030 Agenda for Sustainable Development in line with the UNFCCC and the Paris Agreement. Specifically, the report:

- tracks progress on the recommended actions in the Roadmap;
- describes the outcome of SFWG activities across three workstreams – Developing a Framework for Transition Finance, Improving the Credibility of Private Sector Financial Institution Commitments; Scaling up Sustainable Finance Instruments – which includes high-level principles and voluntary recommendations;
- reports key takeaways from the forum on international policy levers for sustainable investment held in June 2022[1]

## Developing a Framework for Transition Finance

Despite the rapid growth the green and sustainable finance markets in the past years, efforts to support climate-aligned financing have mostly focused on "pure green" and near "pure green" activities, while support to the broader range of investments needed for the whole-of-economy climate transition, including transition activities and investments undertaken by GHG-intensive sectors and firms, has been limited, with some sectors finding it increasingly difficult to access bank loans and capital markets. An effective framework for transition finance can support this whole-of-economy transition, and can improve the ability of sectors or firms to gain access to financing to support their transition to net-zero emissions. This, in turn could help them mitigate the potential negative effects of a disorderly transition, such as climate-related transition risks, restricted access to affordable and

[1] https://g20sfwg.org/wp-content/uploads/2022/07/Presidency-Summary-%E2%80%93-Forum-on-International-Policy-Levers-for-Sustainable-Investment-%E2%80%93-13-June-2022.pdf

reliable energy, unemployment, and potential broader social impacts. An effective framework can also reduce the risks from "green and SDG washing".

Transition finance, as discussed in this report, refers to financial services supporting the whole-of-economy transition, in the context of the Sustainable Development Goals (SDGs), towards lower and net-zero emissions and climate resilience, in a way aligned with the goals of the Paris Agreement.

Against this background, the SFWG has developed a set of high-level principles on transition finance. This includes specific principles on the transition finance framework around the five pillars below, which are interrelated.

| **1. Identification of transitional activities and investments** | |
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| Principle 1 | Put in place either a taxonomy or a set of principles, or other approach to guide FIs and real economy firms to identify and understand what a transition activity or investment opportunity is and reduce the identification barriers, costs and transition-washing risk, especially with respect to the potential of long-term GHG intensive lock-in. |
| Principle 2 | Help ensure that identification of transition activities or investment opportunities are based on transparent, credible, comparable, accountable, and timebound climate objectives, as appropriate, such as those for climate resilience and/or GHG reduction (e.g., carbon intensity, energy efficiency), and in line with the goals of the Paris Agreement. |
| Principle 3 | Be applicable to potential use cases at the project, entity, industry and aggregate (e.g., portfolio, funds and indices) levels. |
| Principle 4 | Include clear recommendations around verifiability of transition activities or investments (e.g., by providing guidance for transparency, benchmarking, or independent |

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| | verification), including their alignment with GHG pathways consistent with the goals of the Paris Agreement. |
| Principle 5 | Be dynamic reflecting and supporting evolving scientific, market and technological developments, policy environment, abatement cost curves, as well as developmental needs and priorities. |
| Principle 6 | Consider and include measures to facilitate an orderly, just and affordable transition, while avoiding or mitigating possible negative impacts on employment and affected households, communities, and other SDGs (including environment protection and biodiversity), or risks to energy security and price stability. |
| Principle 7 | Facilitate cross-border uses, as applicable, by ensuring comparability and interoperability of alignment approaches across jurisdictions considering the G20 high-level principles for developing alignment approaches of the G20 Sustainable Finance Roadmap (action 1). |

| **2. Reporting of information on transition activities and investments** | |
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| Principle 8 | Disclose up-to-date transition plans, with credible and ideally verifiable, comparable, science-based interim and long-term goals, and timelines for achievement (for example, technical pathways, fund raising and investment plans etc.). |
| Principle 9 | Report on progress at regular and appropriately spaced time intervals, including overall mitigation and adaptation objectives, such as net-zero and interim targets that are supported by up-to-date and scientific methodologies, consistent with the goals of the Paris Agreement. |
| Principle 10 | Disclose climate data including Scope 1 and Scope 2 GHG emissions data, and material Scope 3 data as it becomes possible. The disclosure of Scope 3 emissions data can |

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| | progress using a phased approach, as it becomes possible, reflecting progress on data availability and capacity. Firms should report on relevant approaches and policies for disclosure, such as the internal carbon price used, and the characteristics of carbon credits or carbon offsets used to meet the transition targets. |
| Principle 11 | Disclose corporate governance arrangements that ensure such transition activities or plans will be implemented properly, including with respect to risk management systems and due diligence processes. |
| Principle 12 | Disclose methodologies used to measure transition progress and achievements, including, but not limited to, the metrics and methods used to assess progress on climate objectives, such as emissions reductions, removals, recycling and reuse, and/or any benchmarks used therein (e.g., carbon intensity) and the extent to which such methodologies align with internationally recognized scenarios. |
| Principle 13 | Disclose the use of proceeds raised from transition finance instruments (for use of proceeds instruments) or the performance of KPIs/SPTs that are material to the fundraisers' businesses (for general corporate purpose instruments such as sustainability-linked loans or bonds). |

| **3. Transition-related finance instruments** | |
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| Principle 14 | the fundraiser should present a detailed and transparent, science-based transition plan that is aligned with the goals of the Paris Agreement and consistent with a credible alignment approach (a taxonomy-based approach, a principles-based approach, other alignment approach or a combination of them) to inform market participants on the ambition and focus of their transition efforts. |

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| Principle 15 | the fundraiser should adhere to the transition-related disclosure guidance or requirements, as outlined in the previous section and to all other applicable requirements in their jurisdiction(s), to help ensure the transparency of the transition activities, targets, metrics and KPIs, as well as implementation of any safeguard and correction measures, as appropriate. |
| Principle 16 | transition finance instruments could incorporate built-in incentives/penalties, of sufficient magnitude, to encourage strong performance against GHG emission reduction targets and other climate- or sustainability-related performance targets (SPTs). |

| **4. Designing policy measures** | |
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| Principle 17 | Policy makers could design appropriate policies, incentives and regulatory environments and work to ensure they are effective in improving the bankability of transition activities and crowding in more private sector investment, taking into account national circumstances and in the context of sustainable development and efforts to eradicate poverty. Authorities should also consider providing forward guidance on the implementation of such policies to provide regulatory certainty to investors. |
| Principle 18 | IOs and MDBs could play a key role in providing technical assistance and long-term financing to countries, especially developing countries, in designing and implementing suitable policy measures to support transition projects. |
| Principle 19 | International cooperation should be promoted to ensure transparency and understanding across approaches, as well as to exchange good practices and expertise. |

| 5. Assessing and mitigating negative social and economic impacts | |
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| Principle 20 | Encourage fundraisers to assess and mitigate potential impacts of their transition plans or other strategies. In setting eligibility criteria and reporting framework for transition activities, authorities or FIs, where consistent with domestic mandates and local laws and regulations, should encourage the fundraiser (the company) to assess the potential socioeconomical implications of its transition plan, to be transparent about these implications and measures taken to mitigate negative impacts or highlight potential net positive impacts. |
| Principle 21 | Develop demonstration cases of just transition. Appropriate IOs, including the ILO, OECD, UNDP and MDBs, should work with the private sector in developing more concrete transition finance cases that explicitly incorporate "just" elements of transition, including risk and impact measurement and reporting, and KPI design, and update the SFWG in future meetings. |
| Principle 22 | Strengthen the dialogue and cooperation between governmental agencies, employers and workers' representatives, markets regulators, academia, civil society and private sector stakeholders to define a comprehensive strategy to mitigate negative economic and social implications. |

## Improving the Credibility of Private Sector Financial Institution Commitments

Financial institutions have an important complementary role to play in accelerating the whole-of-economy climate transition through their function of capital allocation, client advisory services and market infrastructure services. There has been a growing number of voluntary net-zero or

sustainability commitments by financial institutions, although many financial institutions in developing countries still need to build capacity before taking further commitments. The SFWG has begun work to strengthen the transparency and credibility of these voluntary commitments by financial institutions, by identifying recommended elements of a credible net-zero commitment, and voluntary actions that financial institutions, international organizations, and jurisdictions can take to support these commitments, as consistent with existing legal frameworks. The SFWG's work is an important step forward to enhance comparability across institutions' commitments, to provide clarity on recommended elements of a credible net-zero commitments, and to advance efforts that will support credible voluntary net-zero commitments.

The SFWG recognizes that voluntary commitments have been made mostly by FIs in developed countries, and that that emerging markets and developing economies (EMDEs) may require additional technical assistance to further develop the capabilities to identify, set and track net-zero and other sustainability commitments from financial institutions. The SFWG makes the following voluntary recommendations to gradually enhance accountability of these commitments.

| **Recommendations to Enhance Commitment Credibility** | |
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| *Recommendations for private sector financial institutions* | |
| Recommendation 1 | Apply commitments, where possible, to all operations, financing, products, services, and business lines, and be in-line with holding the increase in the global average temperature to well below 2 degrees Celsius above pre-industrial levels, and pursuing efforts to limit the temperature increase to 1.5 degrees Celsius above pre-industrial levels. Where possible, FIs should consider integrating voluntary net-zero commitments into their business strategy, engagement, policies, corporate governance, risk management, skills, and culture. Institutions should establish, disclose and |

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| | apply relevant strategies, policies and conditions, including policies to disclose, transition and phase out financing of unabated GHG-intensive activities/assets, or policies on the use of carbon credits. Institutions can work with appropriate actors to facilitate an orderly, just, and affordable transition FIs that have made voluntary net-zero commitments should also identify actual or potential adverse impacts of transition and set policies to prevent and mitigate such impacts. FIs shall also cover scope 1 and 2 emissions, and, where data permits, material scope 3. |
| Recommendation 2 | Engage with clients to align practices with appropriate sectoral pathways and engage with client and portfolio companies to encourage and, if feasible, enable them to make voluntary net-zero commitments and implement them. |
| Recommendation 3 | Accompany end-date targets to achieve net-zero with science-based, time-bound interim targets, benchmarked against credible tools, pathways and frameworks, that demonstrate a feasible path towards net-zero. Institutions should consider including, (1) a thorough baseline analysis of current portfolio emissions, ideally performed at the time the commitment is made (within two years of making a net-zero commitment) and (2) adopt an emissions target to be achieved within a certain timeframe – e.g., a mid-term five-year target. Commitments and targets should also be science-based and ideally verified by a third party. |
| Recommendation 4 | Use independent third-party verification/assurance (e.g., by auditors, consultancies, NGOs or assurance companies), keeping in mind the domestic circumstances. Third-party verification bodies |

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| | should be transparent in the methodology they use to verify information in transition plans. |
| *Recommendations for relevant authorities, international organizations and networks* | |
| Recommendation 5 | Relevant authorities and regulators in individual jurisdictions, and in accordance with country capacity, their own net-zero commitments, and domestic laws, could consider encouraging voluntary FI net-zero commitments, articulating how they will support and/or engage with voluntary FI net-zero commitments and corporate net-zero transition plans in a manner consistent with their mandates and objectives, in addition to domestic sustainability reporting requirements. Relevant authorities can help the real economy transition by providing clarity on how they plan to achieve the goals of the Paris Agreement, as well as meeting their Nationally Determined Contributions. This could include implementing mitigation policies coherent with climate goals and establishing policy frameworks that address existing market failures and enable private sector financial flows. |
| Recommendation 6 | Relevant international organizations, MDBs, initiatives and networks should coordinate their efforts to support ambitious voluntary financial sector commitments, including by providing capacity-building services; supporting efforts to improve comparability, transparency, and broad-based access to tools, technologies and methodologies (also suitable for developing countries); and offering platforms for knowledge and data sharing. International networks, NGOs and think tanks specialized in carbon accounting, science-based target setting, and scenario |

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| | development should devote resources to facilitate uptake and use of tools. MDBs and other IOs could promote knowledge sharing and technical assistance programs to countries that request them. |

| **Recommendations to progressively Enhance Commitment Accountability of financial institutions that have made voluntary commitments** | |
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| Recommendation 7 | Provide publicly available, consistent and comparable information on metrics, scenarios, methods, and benchmarks used to set targets. FIs that have committed to a net-zero target should monitor and disclose a consistent, comparable, and reasonable range of metrics in a consistent and comparable way to assess progress in implementing net-zero strategy and priorities (e.g., targets for GHG emissions or intensity reductions; support and scaling of climate solutions and sustainable finance; transparency on engagement strategies; portfolio alignment metrics such as implied temperature rise, internal implementation, and where relevant, retirement of GHG-intensive assets). Information should be interpretable and supported by up-to-date science, with transparency on the methodology used and consistent with data availability over time. |
| Recommendation 8 | Report annually on institutional progress and provide information on any gaps or challenges to meeting targets. Institutions that have voluntarily committed to a net-zero target should establish efficient processes for internal monitoring and for external reporting on progress and any possible corrections. FIs that have voluntarily committed to |

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| | a net-zero target should also commit to revisiting and, if appropriate, revising interim targets and pathways based on evolving market dynamics, technological developments, current policy environment, and shifting abatement cost curves. These FIs should provide publicly available information that clearly explains any adjustments to interim targets and pathways. These FIs are encouraged to share implementation experiences and lessons learned, to encourage clear-eyed assessment of progress against targets. FIs can support efforts to track progress by engaging with relevant initiatives and providing transparent, credible, and comparable information at the FI level. |
| Recommendation 9 | Work together to encourage accountability, share lessons learnt, and address common challenges, including through joint initiatives of FIs that have made net zero commitments. FIs that have voluntarily committed to a net-zero target should learn from one another through discussion and share detail of tools, data, and methodologies used, as appropriate, to enhance comparability across FIs and suitability to local contexts and considerations, and to enable and accelerate delivery on net-zero commitments. These initiatives should support comparability, which will advance efforts to track progress in the aggregate and drive further momentum and accountability. |
| Recommendation 10 | Governments and international organizations and networks could, as appropriate and applicable, consider measures to enhance the accountability and comparability of financial sector net-zero commitments in a manner consistent with their |

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| | mandates and objectives as well as local laws and regulations, recognizing the voluntary nature of such commitments. National authorities and regulators could consider, within their mandates, some form of progress monitoring on regulated FIs, encourage the use of comparable parameters to report on and monitor, support domestic or cross-border data platforms to serve both regulators and financial market participants. International organizations and networks could continue to work towards more comparable technical approaches, methodologies, and metrics for net-zero target-setting, progress tracking (including in aggregate) and implementation that consider international/regional regulatory developments and national contexts. Jurisdictions, international organizations and/or networks engaged in efforts to track progress of firms who have voluntarily committed to net-zero are encouraged to provide progress update to the G20 Sustainable Finance Working Group. |

## Scaling up Sustainable Finance Instruments with a Focus on Improving Accessibility and Affordability

Achieving the goals of the Paris Agreement and the 2030 Agenda will require unprecedented mobilization of capital[2] and global collaborative efforts to scale up sustainable finance markets, including by improving accessibility and affordability of sustainable finance, especially for developing economies and Small and Medium Enterprises (SMEs). The SFWG has developed a set of voluntary recommendations targeted at Multilateral Development Banks

[2] OECD (2020), Global Outlook on Financing for Sustainable Development 2021: A New Way to Invest for People and Planet, OECD Publishing, Paris, https://doi.org/10.1787/e3c30a9a-en

(MDBs), International Organizations (IOs), financial institutions, and country authorities, to help accelerate the growth of sustainable finance instruments, especially for developing economies and SMEs, in the context of national development objectives and priorities.

| I. | Recommendations for MDBs, technical assistance providers, and other international organizations |
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| Recommendation 11 | Devote more resources and expertise to de-risk finance operations for sustainable activities in developing countries. MDBs should devote more resources, within their mandate and capital constraints, to support blended finance operations and technical assistance programs to help clients prepare bankable and sustainable projects and programs for developing countries. They should also encourage staff to work on blended finance projects and programs through their internal incentive structure and mobilize resources across the organization through the use of both concessional and non-concessional finance. It would be desirable to develop a complete solution for blended finance, from identification and preparation of bankable projects to blended financial closure, taking into account the G20 DWG work on Principles to scale up Blended Finance. MDBs and DFIs should collaborate further to build relevant knowledge and understanding with respect to market structure, regulations, institutions and the local political economy dynamics within developing countries. Smart and innovative blending operations should also avoid crowding out private capital. Furthermore, the use of climate-related risk |

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| | insurance has potential to increase the supply of blended financing mechanisms (see Box 3.2). |
| Recommendation 12 | Enhance and expand capacity-building services, including via training of officials, regulators and financial sector professionals, to support the design of sustainable finance policies and roadmaps in developing countries, and enhance capacities of local FIs. MDB, technical assistance providers, and international organizations can focus on capacity building programs that address the development of sustainability alignment approaches, sustainable finance policies and regulation (incl. disclosure requirements), verification services, ESG rating methodologies, policy incentives, green finance product development, and application of fintech tools to sustainable finance. The forms of capacity building can include training activities as well as tailored technical assistance programs. This should also include support to local banks and insurance companies that have in place or want to develop sustainable finance strategies and credible net-zero transition plans. |
| Recommendation 13 | Explore alternative sustainable finance mechanisms, such as by serving as corner-stone investors for sustainable or transition projects or organizing demonstration projects in developing countries to support the generation of an investible SDG- or Paris-aligned pipeline. MDBs and other IFIs can help launch demonstration projects investing in typical sustainable and transition activities in developing countries with a clear purpose of learning about ways to reduce political, business, and operational risks when implementing similar projects. These learnings should help improve funding access and |

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| | reduce funding costs of similar projects. MDB participation could include acting as providers of funds or of technical assistance for project design and operations. |
| Recommendation 14 | Promote international collaboration to improve the comparability and interoperability of sustainable investment alignment approaches as appropriate and applicable, on voluntary basis, in order to facilitate cross-border sustainable investment flows. Cooperation between MDBs bilateral development finance institutions, technical assistance providers, country authorities and international organizations to develop internationally comparable indicators or tools may facilitate cross-border and cross-market sustainable capital flows. This could be achieved through the comparison of alignment approaches, such as taxonomies and standards, and the identification of areas of commonality and differences (e.g., Common Ground Taxonomy by the International Platform on Sustainable Finance). MDBs could promote regional collaboration on alignment approaches to facilitate the development of regional sustainable finance markets. |

| **II. Recommendations for country authorities and domestic FIs** | |
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| Recommendation 15 | Develop approaches to align investment with sustainability goals. Aligning on how market participants should identify sustainable and transitional activities is foundational to the development of a well-functioning sustainable finance market, as it helps to protect market integrity and provides the basis for developing products and allocating policy incentives. |

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| | Governments and regulators could use their convening power to develop, adopt, or encourage systems to align investment with the SDGs and the Paris Agreement, including, but not limited to, principle- or taxonomy-based identification schemes and guidance on labelling of sustainable financial products. Jurisdictions are also encouraged to coordinate and learn from one another to adopt best practices and promote interoperability among approaches. |
| Recommendation 16 | Help the ISSB to better support developing countries and SMEs. Therefore, all countries and relevant national corporate reporting standard setters based on their specific domestic circumstances, should actively participate in the ISSB's work and be innovative in developing best practices to lower the cost of disclosing and accessing sustainability data. For example, national or local governments could consider developing, or encourage the private sector to develop, sustainability data platforms to serve financial market participants. |
| Recommendation 17 | Develop the necessary infrastructure for domestic sustainable loan and bond markets. Experiences from jurisdictions with more developed sustainable finance markets suggest that green loan and green bond markets can be scaled up quickly when jurisdictions are equipped with the basic market infrastructure for banking services and bond markets. In developing these markets, governments and regulators should have a clear strategy towards the identification and labelling of green loans and bonds, the methodologies for validating the environmental benefits of underlying activities, and necessary sustainability disclosure requirements or |

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| | standards. For instance, the benefits of the standardization of targets and key performance indicators within a sector for transition instruments such as sustainability-linked bonds could be pursued. Governments could also lead by example by issuing sovereign sustainable financial instruments which, through a demonstration effect, can have positive spillovers on the methodologies and standards of verification and disclosure for corporate sustainable issuance. |
| Recommendation 18 | Introduce policy incentives to scale-up sustainable finance instruments. Many policy incentives could be considered by country authorities to encourage participation of private capital in sustainable investment. This could include government subsidies for green loan and green bond verification, correcting market signals through environmentally-related taxes and other price-based instruments, interest subsidies for green projects, fiscal incentives for green bonds and central bank actions– within their mandates - that could increase the demand for sustainable financial assets. Other policies, such as emissions trading schemes or other pricing mechanisms and regulatory action, can help create an enabling environment to boost the demand for and reduce the costs of sustainable products, services, and technologies. Jurisdictions can select an optimal mix of these policy incentives based on their local circumstances. |
| Recommendation 19 | Deploy digital technologies to reduce the costs of sustainable finance operations. Digital technologies have the potential to increase the efficiency and reduce the costs of sustainable finance operations. MDBs, technical assistance providers, and relevant |

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| | international organizations and networks should devote more resources in assisting and providing capacity building for developing countries to adopt and deploy such technologies. Examples of use cases of digital technologies include identification and labelling of sustainable activities and assets, tracking and disclosure of granular ESG information, trading and management of sustainable assets. |
| Recommendation 20 | Develop sustainable financial products suitable for use by SMEs, and incentivize their uptake, such as in the case of SSCF. SMEs often lack access to sustainable finance capital market instruments due to high costs for them to access capital markets and lack of sustainability rating or accreditation. Adopting SSCF in a phased manner while considering country circumstances, for example, is one way to help solve both issues. Governments should encourage or provide incentives to firms to adopt SSCF and other innovative sustainable finance products and services for SMEs. MDBs could support this effort by offering technical assistance to developing countries. |
| Recommendation 21 | Support SMEs and local FIs to develop their awareness and capacity in addressing climate change to reduce their impact. SMEs often have more limited information and capacity to tackle climate change. Larger local FIs' connection with wide-ranging SMEs could be an important channel to overcome this issue, as they could provide valuable advice based on rich information on SMEs' business strategies and challenges they face. This should include work to support local banks, pension and sovereign wealth funds, and insurance companies to develop and implement sustainable finance |

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| | strategies and credible net-zero transition plans. This channel is particularly important for jurisdictions with a bank-centric financial system, including developing countries, where greening supply chains can have a significant impact in achieving the country's climate change commitments. |

## Reporting on progress on the G20 Sustainable Finance Roadmap & 2021 recommendations

Despite the strong financial and economic headwinds arising from multiple crises (the effects of which on the global economy and sustainable finance were broadly addressed in the July FMCBG Chair's Summary and will be again in the upcoming October statement), G20 members, IOs, MDBs, market participants, and other networks and initiatives remain committed to advance global sustainable finance markets. In relation to this year's work, the first G20 FMCBG Communiqué states that the 2022 G20 Sustainable Finance Report will report and assess on progress in addressing priorities in the G20 Sustainable Finance Roadmap. Since then, G20 members, IOs, MDBs, networks, other initiatives and G20 working groups have reported to the SFWG on progress made towards the 5 Focus Areas[3] and the 19 recommended Actions of the Roadmap.

The most marked progress was in areas related to the development and adoption of standards, taxonomies, net-zero commitments, and other alignment approaches for identifying sustainable activities and relevant investments, and principles and frameworks for disclosure of sustainability information for assessing sustainability-related risks, opportunities, and impacts, as well as net-zero commitments made by corporates and financial institutions. While some progress was made to build capacity on sustainable finance issues - especially for emerging markets and developing countries, to raise MDBs' ambition on climate action and broadly mobilize private finance, and to advance digital solutions supporting the mobilization and tracking of sustainable investment - the SFWG notes the need to accelerate efforts to address these priority actions identified in the Roadmap. At SFWG meetings, some members noted that additional work on other sustainability related

[3] The Roadmap counts 5 Focus areas: (1) Market development and approaches to align investments to sustainability goals; (2) Consistent, comparable, and decision-useful information on sustainability risks, opportunities, and impacts; (3) Assessment and management of climate and sustainability risks; (4) Role of IFIs, public finance and policy incentives; and (5) Cross-cutting issues.

objectives, such as conservation of nature and biodiversity, pollution control, and the development of the circular carbon economy, is needed. The full details of the progress reported by both IOs and G20 members is available on an online dashboard on the SFWG's website.

In particular, IOs reported deploying efforts to set frameworks and guidelines to overcome obstacles in the financial system and facilitate the achievement of the Sustainable Development Goals (SDGs) and the Paris Agreement. Moreover, IOs have been working on providing consistent guidance to maximize positive impacts for the financial sector, improving corporate disclosure on sustainable development-related matters, and addressing information gaps on sustainability data and regulatory measures. Some of them have also been working on performing studies on liability risk, and on achieving a coherent system of norms for impact. The forum on international policy levers for sustainable investment, hosted by the Indonesia G20 Presidency in June 2022, discussed a range of policy levers that can incentivize or create an enabling environment for sustainable finance.

Additionally, the SFWG took note of some of the progress on the SFWG's 2021 Priority Areas[4]. The International Financial Reporting Standards (IFRS) Foundation established the new International Sustainability Standards Board (ISSB), to develop a comprehensive global baseline of high-quality sustainability disclosure standards to meet investors' information needs. Jurisdictions and relevant national/regional standard setters and the ISSB are encouraged to cooperate with the goal of ensuring interoperability of national/regional standards and the global baseline in order to minimize fragmentation of sustainability disclosure requirements, reduce reporting burdens, and enable the availability of consistent sustainability information for users. Additionally, the MDB Climate Working Group is working under a

[4] In 2021, priority areas were: (1) Improving comparability and interoperability of approaches to align investments to sustainability goals; (2) Overcoming information challenges by improving sustainability reporting and disclosure; and (3) Enhancing the Role of International Financial Institutions in supporting the goals of the Paris Agreement and 2030 Agenda.

joint approach with six core areas for aligning with the Paris Agreement and covers all finance flows and aims to have this work completed and operational by 2023–24. However, while MDBs have made good progress, there remains a significant gap between the scope of their climate work programs and the scale and speed required to achieve the goals of the Paris Agreement and 2030 Agenda.

## Discussing policy levers that incentivize financing and investment to support the transition

It was highlighted on multiple occasions the interdependence between sustainable finance and climate mitigation policies. As described in greater detail in the accompanying annex to the Report, on June 13, 2022, the G20 Indonesia G20 Presidency convened an international forum on policy levers for sustainable investment. Members shared experiences and discussed a range of policy levers that can incentivize sustainable financing and investment that supports an orderly, just and affordable transitions towards a low-greenhouse gas emissions and climate-resilient economy, with due considerations of national circumstances and in line with the Paris Agreement. The focus of the discussion was on national policy levers; however, international cooperation, coordination and impact was discussed as well. Members acknowledged this work is in its nascent stage, but generally expressed that greater clarity on policy paths could reduce uncertainty and catalyze action that allows financial firms to allocate capital. They also recognized the complementary nature between effective policy levers and financing, the need to better understand advantages and disadvantages, as well as the effectiveness of the full range of climate mitigation and adaptation policy levers, at both national and international levels, and the need to mitigate potential unintended economic spillovers or distributional impacts as much as possible. This technical discussion was foundational to the High-Level Breakfast Discussion on Climate Mitigation[5].

[5] This initiative was organized by the Indonesian G20 Presidency, within the Third Series of G20 FMCBG Meeting Activities, held in July 2022 in Bali.

This initiative gave FMCBGs the opportunity to share their national experiences about policies to address climate change and preserve financial stability and economic growth in the long-term.

## Chapter I - Developing a Framework for Transition Finance

The G20 recognizes the important role of governments in supporting an orderly, just, and affordable transition as well as the critical role of a resilient financial sector in mobilizing private sector finance to facilitate such a transition. In the G20 Sustainable Finance Roadmap, G20 leaders acknowledged that the existing sustainable finance landscape has gaps in terms of enabling the climate transition and identified specific actions to fill these gaps. Indeed, despite the rapid growth of climate financing in recent years, its proportion to total global financing remains low, and – according to the IPCC – its size is significantly smaller than the financing needed to achieve the objectives of the Paris Agreement. This is partly due to the fact that current green and sustainable finance alignment approaches generally aim to support activities that are already green and sustainable. However, a much larger part of the global economy, including sectors that are currently GHG intensive but in its process of transitioning to low or net-zero emissions, also require financing. An excessively narrow interpretation of "green" or "sustainable" finance could limit the flow of capital towards activities and investments that are needed to support the climate transition. For example, it may entail the risk that some GHG-intensive firms be penalized despite having credible transition plans, thus increasing the cost of capital to firms in need of investment to realize their green transition goals. Recognizing this challenge, many G20 members are exploring measures to integrate transition considerations into their broader approach to sustainable finance.

Transition finance, as discussed in this report, refers to financial services supporting the whole-of-economy transition, in the context of the Sustainable Development Goals (SDGs), towards lower and net-zero

emissions and climate resilience, in a way aligned with the goals of the Paris Agreement.

The G20 Sustainable Finance Roadmap, endorsed as voluntary by G20 Leaders in October 2021 in Rome, includes various actions to better integrate transition considerations in sustainable finance approaches and explicitly asked the G20 SFWG to "work with appropriate IOs to develop high-level principles for a credible and consistent framework for financing a just climate transition". Drawing inputs from various international organizations and analyses of current market practices, the SFWG has developed high-level principles for jurisdictions, to the extent permitted under a jurisdictions' domestic authorities, and financial institutions to consider on a voluntary basis taking into consideration the local unique context of different jurisdictions, related to the following five pillars:

1) identification of transitional activities and investments,
2) reporting of information on transition activities and investments,
3) developing transition-related finance instruments,
4) designing policy measures, and
5) assessing and mitigating negative social and economic impact of transition activities and investments.

The initial focus of our recommended principles for transition finance framework is to guide the development of policies and financial services to support the climate-related transition. Over time, the focus of transition finance can be broadened to cover other sustainability related objectives, such as conservation of nature and biodiversity, pollution control, and development of the circular economy. We acknowledge that jurisdictions could consider adoption of these principles on a voluntary basis, and implement them in a phased manner, and capacity building services offered by the international community will be important for accelerating their adoption especially in developing countries. An example of the application of the transition finance framework's five pillars is the Indonesia's Energy Transition Mechanism (Box 1.8).

## Pillar 1. Identification of Transitional Activities and Investments

An important foundation for scaling up transition finance is to coordinate internationally on how the financial sector should identify transitional activities and investments (e.g., by using a principle-based approach, a taxonomy-based approach, or a combination of both) and engage with relevant firms to raise awareness and provide the appropriate financing needed and help promote the credibility of these activities and investments in contributing to climate goals. These approaches will enable market participants to assess and mitigate "transition-washing" risks and thus protect market integrity, and will facilitate the flow of capital towards investments that support climate goals.

Drawing on inputs from members and knowledge partners, country case experiences, financial institutions (FIs) and sector specialists, the SFWG reviewed a range of approaches, including:

**Principle-based approaches** provide high-level guidance for identification of tools that can help support climate transitional activities and relevant investments and can be applied at the activity level, company level, financial instrument level, portfolio level as well as industry level. Principle-based approaches can provide guidance on transition plans, strategies, emission reduction targets, pathways, timeframes, transparency and verifiability. An example can be found in annex Box 1.1 (Transition Finance in Japan).

**Taxonomy-based approaches** takes the form of a list of specific activities that support the climate transition, typically classified by sector. Taxonomies have varying levels of specificity in terms of technical pathways and emission reduction targets, sometime reflecting local or national circumstances and availability of resources. In general, taxonomies can be used by investors and companies to identify, label, and report on transition activities as well as enable the measurement/monitoring of transition performance. Some cases can be found in annex Boxes 1.2 (EU taxonomy) and 1.3 (China's Huzhou City Transition Finance Catalog).

**Combination of approaches**, where some sectors/activities areas are defined using a taxonomy-based approach, and other sectors/activities are identified by a principles-based approach.

The list above is not exhaustive, and there are also other approaches and tools that can support identification of transition-aligned activities and investments. For example, some jurisdictions support regulatory or voluntary best practice key performance indicators (KPIs) that help market participants to assess a financial product's transition strategy and encourage the use of transition finance instruments.

Each approach has different advantages and challenges and entertain wide variations. Jurisdictions should consider the most appropriate approaches given their specific policy priorities, capacities, market sophistication, regulatory framework, and use cases. A jurisdiction could choose to differentiate them in activity-based, entity based, and portfolio-based applications. The factors for jurisdictions to consider when developing their own approach could include but not limited to:

- the amount of technical expertise required (especially as it relates to each sector/activity),
- the degree to which credible forward-looking mid- and long-term transition plans can be captured by the approaches;
- the amount and ease of coordination required across government agencies;
- the costs of supporting essential verification and other consultative services (particularly for smaller firms);
- the desired flexibility to adjust and adapt to transition pathways as technology and supporting policy evolves;
- the degree of (legal) clarity on what is a transitional activity and corresponding contribution to reducing greenwashing risks;
- the ability to provide a shared reference encouraging and supporting engagement between policy makers, investors and companies, and
- the ability to support other investment decisions, public policies or other sustainable finance tools.

Regardless of the specific approaches, they should all serve the objectives of helping FIs and project owners to identify transition activities or relevant transitional investment opportunities, understand their contributions to the climate transition, reduce market frictions and associated costs, and enhance transparency and credibility by reducing transition-washing risk for FIs, project owners, and other market participants.

**Accordingly, this year, the SFWG has developed the following set of voluntary, high-level principles for jurisdictions that intend to develop or adopt approaches to identify transition activities or investment opportunities. They build on and complement the G20 voluntary principles for alignment approaches (Action 1) in the G20 Sustainable Finance Roadmap. The approaches should:**

- **Principle 1: Put in place either a taxonomy or a set of principles, or other approach to guide FIs and real economy firms to identify and understand what a transition activity or investment opportunity is and reduce the identification barriers, costs and transition-washing risk, especially with respect to the potential of long-term GHG intensive lock-in;**
- **Principle 2: Help ensure that identification of transition activities or investment opportunities are based on transparent, credible, comparable, accountable, and timebound climate objectives, as appropriate, such as those for climate resilience and/or GHG reduction (e.g., carbon intensity, energy efficiency), and in line with the goals of the Paris Agreement.**
- **Principle 3: Be applicable to potential use cases at the project, entity, industry and aggregate (e.g., portfolio, funds and indices) levels;**
- **Principle 4: Include clear recommendations around verifiability of transition activities or investments** (e.g., by providing guidance for transparency, benchmarking, or independent verification), including their alignment with GHG pathways consistent with the goals of the Paris Agreement;
- **Principle 5: Be dynamic reflecting and supporting evolving scientific, market and technological developments, policy environment, abatement cost curves, as well as developmental needs and priorities;**
- **Principle 6: Consider and include measures to facilitate an orderly, just and affordable transition, while avoiding or mitigating possible**

**negative impacts on employment and affected households, communities, and other SDGs (including environment protection and biodiversity), or risks to energy security and price stability;**

- **Principle 7: Facilitate cross-border uses, as applicable, by ensuring comparability and interoperability of alignment approaches across jurisdictions** considering the G20 high-level principles for developing alignment approaches of the G20 Sustainable Finance Roadmap (action 1)

## Pillar 2. Reporting of Information on Transition Activities and Investments

Reliable, consistent, verifiable, and comparable information on transition financing could help interested investors and other stakeholders evaluate whether transitional activities and relevant investments are aligned with the Paris Agreement. High-quality reporting will also enable these stakeholders and investors to assess the credibility of transition claims, for example, whether the use of proceeds from financial instruments is appropriate, whether the assessment of transition outcomes is based on scientific methodologies, and whether the implementation process is transparent. Transition plans are also key to ensuring that FIs and real economy firms are actively and strategically thinking about and setting out how to align their business models with the net zero transition and setting out steps to accomplish this in a timely and orderly manner. In doing so they contribute to the wider economy transition, and incentivize others around them (e.g., clients, customers, etc.) to do the same in a way that looks ahead, beyond simply the point-in-time provision of green activities or investments.

Existing public or private practices of transition-aligned reporting can be found at the corporate, portfolio and project levels. Many fundraisers have followed guidelines for reporting on transitional activities or relevant investments developed by the International Capital Markets Association (ICMA), e.g., the Climate Transition Finance Handbook or the well-established Green Bond Principles, the Guidance on Metrics, Targets, and Transition Plans of FSB's Task Force on Climate-Related Financial Disclosures (TCFD), and some jurisdictions, countries, stock exchanges and FIs have issued mandatory

requirements, best practices or guidelines for reporting. The SFWG welcomes the International Sustainability Standards Board's workplan to develop a comprehensive global baseline of sustainability disclosures standards and highlights the importance of cooperation between the ISSB and national and regional standard-setters as well as other reporting initiatives with a view to ensure interoperability between the global baseline and domestic legal frameworks.

**Based on a review of current market practices, the SFWG recommends that the reporting framework for transition activities and investment opportunities, which can be considered by jurisdictions and by FIs on a voluntary basis, include at least the following elements:**

- **Principle 8: Disclose up-to-date transition plans, with credible and ideally verifiable, comparable, science-based interim and long-term goals, and timelines for achievement** (for example, technical pathways, fund raising and investment plans etc.);
- **Principle 9: Report on progress at regular and appropriately spaced time intervals,** including overall mitigation and adaptation objectives, such as net-zero and interim targets that are supported by up-to-date and scientific methodologies, consistent with the goals of the Paris Agreement;
- **Principle 10: Disclose climate data including Scope 1 and Scope 2 GHG emissions data, and material Scope 3 data as it becomes possible.** The disclosure of Scope 3 emissions data can progress using a phased approach, as it becomes possible, reflecting progress on data availability and capacity. Firms should report on relevant approaches and policies for disclosure, such as the internal carbon price used, and the characteristics of carbon credits or carbon offsets used to meet the transition targets;
- **Principle 11: Disclose corporate governance arrangements that ensure such transition activities or plans will be implemented properly**, including with respect to risk management systems and due diligence processes;
- **Principle 12: Disclose methodologies used to measure transition progress and achievements,** including, but not limited to, the metrics and methods used to assess progress on climate objectives, such as emissions reductions, removals, recycling and reuse, and/or any

benchmarks used therein (e.g., carbon intensity) and the extent to which such methodologies align with internationally recognized scenarios; and

- **Principle 13: Disclose the use of proceeds raised from transition finance instruments** (for use of proceeds instruments) **or the performance of KPIs/SPTs that are material to the fundraisers' businesses** (for general corporate purpose instruments such as sustainability-linked loans or bonds).

## Pillar 3. Transition-Related Financial Instruments

To improve the resilience of the financial sector and fully support the investment needed to facilitate the whole-of-economy just and affordable climate transition, it will be critical that a wide range of relevant financial instruments be developed and utilized to provide the necessary finance for the transition of the whole economy.

Based on current market practices (See Boxes 1.5-1.8), input from knowledge partners, and engagement with the private sector and other stakeholders, **the SFWG identified a suite of financial products and toolbox that can be included as transition finance instruments, such as:**

- **Debt instruments**: Instruments can include use-of-proceeds green/transition bonds/loans, sustainability-linked loans or bonds, or fixed/term deposits, reimbursable loans and other debt finance instruments to support suitable transition activities.
- **Equity-related instruments**: Instruments can include transition-focused buyout funds, venture capital funds, and mezzanine financing, among other equity investments. These instruments may be useful for companies adopting new technologies, highly indebted companies, or SMEs (See Box 1.6 for a discussion of the EU's transition fund).
- **Risk mitigation products**: Examples include insurance products that are designed to hedge transition-related risks such as the use of new equipment or technologies, risk-mitigation tools, such as guarantee or other credit enhancement products or blended-finance instruments, that can also help mitigate transition risks.

- **Other instruments**: Products include, but are not limited to, asset-backed securities, real estate investment trusts, blended finance, and exchange-traded funds that support transition activities or the aligning of investment portfolios with the climate transition. The design of these products should incorporate requirements that the underlying assets credibly contribute to decarbonization and financial stability considerations.

**The SFWG recommends FIs, on a voluntary basis, to develop and expand their toolbox to include transition finance instruments, building on jurisdictional frameworks. Drawing from G20 members and KP's inputs, the SFWG recommends that the design and use of transition finance instruments feature the following principles:**

- **Principle 14: the fundraiser should present a detailed and transparent, science-based transition plan that is aligned with the goals of the Paris Agreement and consistent with a credible alignment approach (a taxonomy-based approach, a principles-based approach, other alignment approach or a combination of them)** to inform market participants on the ambition and focus of their transition efforts;
- **Principle 15: the fundraiser should adhere to the transition-related disclosure guidance or requirements**, as outlined in the previous section and to all other applicable requirements in their jurisdiction(s), to help ensure the transparency of the transition activities, targets, metrics and KPIs, as well as implementation of any safeguard and correction measures, as appropriate, and
- **Principle 16: transition finance instruments could incorporate built-in incentives/penalties, of sufficient magnitude**, to encourage strong performance against GHG emission reduction targets and other climate- or sustainability-related performance targets (SPTs).

## Pillar 4. Designing Policy Measures

GHG-intensive companies are increasingly being confronted with challenges to secure long-term financing as market participants perceive them to be

high-risk. Given the importance of facilitating an effective, rapid, whole-of-economy climate transition, and not just supporting the low- or zero-emissions firms/projects currently viewed as "pure green", policy action is needed to send correct market signals to incentivize and accelerate the mobilization of private capital flows to enhance the sustainability or support the orderly transition of high-emitting and/or hard-to-abate sectors and to mitigate the risks of creating stranded assets. According to Action 16 of the G20 Sustainable Finance Roadmap, the SFWG will work with other G20 groups, relevant international organizations, networks, and initiatives as appropriate, to analyze the implications of such public policy levers.

While the identification of transition activities and investments as part of pillar 1 is one key aspect of this, the G20 forum on international policy levers for sustainable investment has also confirmed that there is a need to better understand the implications of carbon pricing mechanisms vs. non-pricing mechanisms in light of developing appropriate country or sector specific policy mixes to quickly reduce GHG emissions at low cost while providing a level playing field for sectors and industries (see Box 3.1). In order to boost the international impact, international cooperation and coordination should be improved. Policy measures generally fall into two categories:

1) the use of public financing, de-risk, or otherwise support/incentivize transitional activities by improving the availability and affordability of financing for the climate transition; or

2) price and non-price-based policy tools (such as certain incentives, regulatory measures, sectoral standards, etc.)[6] designed to reduce emissions and accelerate the climate transitions by internalizing the costs of firms and projects in order to inform the financial decision-making of market participants.

Where consistent with the mandate of relevant authorities, examples of these policy incentives, could include:

[6] Noels, J. and R. Jachnik (2022, forthcoming), "Assessing the climate consistency of finance: taking stock of methodologies and their links to climate policy objectives", OECD Environment Working Papers.

- de-risking facilities, such as government, multilateral development bank (MDB) provided loan guarantees or first-loss provisions (see Box 1.6 and 1.8),
- concessional financing towards transition firms and/or projects, such as interest subsidies (either directly or on-lending via commercial banks),
- subsidies for [third party] verification of transition finance instruments (e.g., used in Hong Kong SAR of the PRC, Japan, and Singapore),
- central bank instruments (e.g., used by the People's Bank of China, Bank Indonesia and Bank of Japan) where mandates allow,
- emission trading schemes (ETS), carbon taxes, or other emissions pricing mechanisms that put a price on covered emissions, revenues from emissions pricing mechanisms could be used for a variety of purposes, including for example for supporting climate-aligned investments, and dividend/rebate programs for impacted communities;
- investment by government sponsored "transition funds",
- public procurement, as a driver for innovation and for providing industry with incentives to develop environmentally-friendly works, products and services, government spending for green research and development of technologies that support the climate transition activities,
- preferential tax treatment or incentives for companies engaged with transition activities, e.g., via accelerated depreciation of fixed assets or other tax credits (in order to internalize external benefits),
- sectoral regulations that can boost demand or market shares for transition activities, e.g., setting minimum energy efficiency standards for power, building and manufacturing sectors or environment friendly labelling certifications for products, and environment management standards like ISO 14000 series etc. (e.g., Bank Indonesia's LTV on green property loans and 0% down payment for electric vehicle purchase).
- introduction of regulatory or voluntary best practice key performance indicators (KPIs) that help market participants to assess a financial product's transition strategy and encourage the use of transition finance instruments.

Drawing from inputs from G20 members, knowledge partners (KP), the SFWG recommends:

- **Principle 17: Policy makers could design appropriate policies, incentives and regulatory environments and work to ensure they are effective in improving the bankability of transition activities** and crowding in more private sector investment, taking into account national circumstances and in the context of sustainable development and efforts to eradicate poverty. Authorities should also consider providing forward guidance on the implementation of such policies to provide regulatory certainty to investors.
- **Principle 18: IOs and MDBs could play a key role in providing technical assistance and long-term financing to countries, especially developing countries, in designing and implementing suitable policy measures to support transition projects.**
- **Principle 19: International cooperation should be promoted to ensure transparency and understanding across approaches, as well as to exchange good practices and expertise.**

## Pillar 5. Assessing and Mitigating Negative Social and Economic Impact of Transition activities and Investments

While it is encouraging that governments, FIs, and many other stakeholders are taking actions to drive transition activities and investments, it is also important to note that the transition process (i) requires immediate action, as lower-bound estimates that every year the transition is delayed could cost an additional USD 150 billion[7]; and (ii) may generate negative social and economic impacts on different households, workers, groups, communities, indigenous people, enterprises, sectors and regions especially those in

[7] Moritz Baer, Jacob Kastl, Alissa Kleinnijenhuis, Jakob Thomae, Ben Caldecott (2021) The cost for the financial sector if firms delay climate action). Climate Stress Testing and Scenarios Project (CSTS), Oxford Sustainable Finance Group, University of Oxford & 2° Investing Initiative. https://2degrees-investing.org/wp-content/uploads/2021/11/The-Cost-for-the-Financial-Sector-if-Firms-Delay-Climate-Action.pdf

developing countries. Therefore, tailored transition programs should consider ways to address negative impact resulting from the transition. For example, the emissions-intensive power sector, and some high-emitting industrial sectors (such as steel, chemicals, and cement) will face significant transition pressure both in the short term and continuing through the next few decades. While ensuring that employment and social gains are maximized, it will be critical for public policy to (i) address the potential negative spillovers for certain groups or households such as unemployment, deterioration in local fiscal capacity and community services, shortage of energy and materials, and price increases in certain sectors or products used by the most vulnerable segments of the population; and to (ii) reinforce the positive spillover effects such as new employment opportunities in low- or zero- emission sectors or better health outcomes, which could all have implications for relative prices. The SFWG recognizes that the potential negative distributional impacts of the climate transition are most likely to be borne by the most vulnerable segments of the population, and that poor communities and regions tend to be affected more significantly. The SFWG also recognizes that the climate transition, nature, and biodiversity are all inextricably linked, and that governments should also consider the associated impacts of the climate transition on the environment, which also can result in negative economic and social impacts on the most vulnerable. One of the possible ways to mitigate an adverse impact of transition on energy prices and security is to use low-emission types of energy sources at the first stage.

This emerging consensus was underscored in the Paris Agreement preamble, the G20 Leaders' Rome Declaration, and at COP26 in Glasgow, where the parties recognized "the need to ensure just transitions that promote sustainable development." The Glasgow decision also highlighted the need to accelerate "the phasedown of unabated coal power […] while providing targeted support to the poorest and most vulnerable in line with national circumstances and recognizing the need for support towards a just transition." Building on this momentum, it is important that the SFWG transition finance framework provide guidance to jurisdictions to operationalize in a timely fashion the "just" element of the transition process (See Box 1.7 and 1.8)

Taking impacts on employment considerations as an example, our initial dialogues with private sector specialists and consultation with International Labour Organization (ILO), have yielded the following ideas on how jurisdictions or firms might incorporate the assessment and mitigation of social and economic impacts into transition finance frameworks. For example:

- In setting out parameters or eligibility criteria for transition activities and transition plans of corporates, regulators or FIs could encourage the fundraiser (the company) to conduct due diligence to identify, avoid and address adverse impacts on employment associated with the transitional activities;
- In cases where the implementation of the company's transition plan is expected to result in significant unemployment and/or other social impacts, the company could include commensurate mitigation measures (e.g., severance package, effective retraining and reskilling programs), which complement the role of the social security system, as part of its transition plan;
- The employment impact assessment and mitigation measures (e.g., severance package, effective retaining and reskilling program), as well as the progress of their implementation, could be disclosed to the financiers and the market;
- Regulators and financiers could consider including social and employment related performance measures alongside emission reduction targets as part of the KPIs that are linked to the terms of the transition finance products (e.g., coupon interest rate of a sustainability-linked loan or bond) as incentives/penalties, in order to encourage greater attention to the social aspect of the transition.

In addition to entity/instrument level considerations to the employment issue, the SFWG also acknowledges that just transition is to be considered at a much broader context. The SFWG welcomes further analysis to better understand and measure the macroeconomic and distributional impacts of climate change and the climate transition and, in line with the Action 13 of the Roadmap, as well as further coordination in this area with the G20 Framework Working Group (FWG), and other international organizations and networks such as the NGFS, the WBG, the IMF, the ILO and the OECD to

enhance a common understanding on these issues and to identify the most appropriate policy mix to mitigate negative social and economic impacts. Climate transition remains a nascent area for the financial sector and governments, however, it is important to allow more initiatives by country authorities and the private sector before the G20 comes to a more prescriptive view on how to measure the macroeconomic, local and social impacts of transition, on the appropriate roles the public and private sector and how they should collaborate in mitigating the negative impact and maximizing positive ones, and how these considerations can operationalize in financial transactions.

**The SFWG makes the following high-level recommendations:**

- **Principle 20: Encourage fundraisers to assess and mitigate potential impacts of their transition plans or other strategies.** In setting eligibility criteria and reporting framework for transition activities, authorities or FIs, where consistent with domestic mandates and local laws and regulations, should encourage the fundraiser (the company) to assess the potential socioeconomical implications of its transition plan, to be transparent about these implications and measures taken to mitigate negative impacts or highlight potential net positive impacts;
- **Principle 21: Develop demonstration cases of just transition.** Appropriate IOs, including the ILO, OECD, UNDP and MDBs, should work with the private sector in developing more concrete transition finance cases that explicitly incorporate "just" elements of transition, including risk and impact measurement and reporting, and KPI design, and update the SFWG in future meetings.
- **Principle 22: Strengthen the dialogue and cooperation between governmental agencies, employers and workers' representatives, markets regulators, academia, civil society and private sector stakeholders to define a comprehensive strategy to mitigate negative economic and social implications**.

# Chapter II - Improving the Credibility of Private Sector Financial Institution Commitments

## 1. Background

Private Financial Institutions (FIs) have an important complementary role to play in accelerating the climate transition and achieving the Agenda 2030 by providing the capital needed to finance transition activities and investments associated with low-emissions firms and technologies and adaptation plans and measures. They are uniquely positioned to help to provide their clients across all sectors of the economy, and in all the countries that they operate, with the resources, expertise and advice to guide their transition to a climate resilient future. Over the past 18 months, more than 450[8] private sector financial firms mostly in developed countries have made voluntary net-zero or other climate-related commitments, representing a potentially significant shift in investment that can support the climate transition across their portfolios. The growth in commitments has been accompanied by a proliferation of methodologies, criteria and benchmarks to set net-zero commitments with varying levels of robustness. There is a growing urgency for all commitments to be transparent, credible, backed by robust action plans, effectively implemented and converted into real emissions cuts as rapidly as possible in order to preserve investor confidence and avoid green and SDG washing risks. There are different schemes and initiatives that FIs and firms can choose from to make such commitments, but once committed, they should be credible.

However, many challenges remain, that hinder more FIs from making credible net-zero commitments. For example, the lack of capacity to collect and verify emissions data or climate adaptation needs, makes it difficult for some FIs to track and report the emissions of their clients, especially if including those of their supply chains. There is also a lack of tools, methodologies, and technical capabilities such as those related to transition

[8] Climate Policy Initiative (2022). Private Financial Institutions' Paris Alignment Commitments: 2022 Update

pathways or scenario analysis, which can discourage certain FIs from setting commitments. This may only further complicate for firms who operate in a jurisdiction (or multiple jurisdictions) with different national climate goals and different net-zero commitments timelines, or adaptation needs. Furthermore, FIs, like other corporations, have pre-existing legal obligations to clients and stakeholders. In our consultations, we have heard from financial institutions about emerging concerns, including on how to assess and navigate potential legal implications and evolving guidance from member alliances. Many of these challenges are in the process of being addressed, for example through technical work on transition pathways, alignment tools, sharing best practice among institutions, and providing clarity on best practices for target setting, transition planning and transparency thereof. This underscores the timeliness of the SFWG's work as the group's early analysis can help to better identify and address some of these challenges.

Recognizing the voluntary nature of these commitments, which reflect local circumstances, national strategies, and any applicable regulatory requirements[9], the global operation of some FIs, business models and other elements, the SFWG has reviewed inputs from members, knowledge partners and organized engagements with key private sector actors. This has helped to better understand the current state of voluntary financial sector net-zero pledges and other commitments related to financing the climate transition in order to develop a set of principles to: 1) enhance the credibility of these commitments; and 2) progressively enhance accountability of FIs that have made these voluntary commitments.

[9] As previously stated, certain jurisdictions have a legal framework that will frame at least partially the nature /disclosure of such commitments

## 2. Review of market practices on climate commitments

Several market-led alliances, voluntary standard-setters, think tanks and other organizations, including[10], PCAF (Partnership for Carbon Accounting Financials), SBTi (Science-based Targets Initiative), TPI (Transition Pathway Initiative), PACTA (Paris Agreement Capital Transition Assessment) manager, UN partnership programmes (Principles for Responsible Banking; Principles for Sustainable Principles for Sustainable Insurance; Principles for Responsible Investing; Sustainable Stock Exchanges, U.N. Race to Zero) and GFANZ (Glasgow Financial Alliance for Net-Zero), provide or are developing guidance and recommendations, to assist FIs with tools and methodologies for setting and implementing on a voluntary basis net-zero commitments.

Commitments made by some FIs usually entail a net-zero target as well as different degrees of information on underlying data, methodologies, and coverage of the commitment, for example: a target for financed emissions (GHG emissions of investment portfolios) to achieve net-zero in the long term (such as 2050), a target for the FIs' own operations to achieve net-zero in the shorter to medium-terms (such as 2030), as well as transition pathways and plans for the FIs' exposures to GHG emission intensive sectors.

To set and implement net-zero commitments, some FIs have leveraged dedicated tools and methodologies developed and/or promoted by various international initiatives[11]. Several FIs have also developed internal tools to analyze transition alignment and assist financial decisions.

In order to institutionalize their commitments and fully embed the interim targets into their operations, some FIs have also started to take actions to

[10] This constitutes a non-exhaustive list of initiatives that have developed or are developing free of charges tools and methodologies. While to date and to available knowledge, no comprehensive list of tools and methodologies exists, as examples, some tools are listed on the website of the Luxembourg Sustainable Finance Initiative (https://lsfi.lu/tools/)

[11] For further consideration, see NGFS (2022), "Enhancing Market Transparency in Green and Transition Finance", Chapter 3, and also OECD (2022), "ESG ratings and climate transition."

incorporate net-zero considerations in their business strategy, engagement, and policies.

- Strategy
  - Monitor a consistent and wide range of metrics to assess progress in implementing net-zero strategy and priorities (e.g., targets for emissions reductions, support and scaling of climate solutions; engagement, internal implementation, and where relevant, retirement of transition assets).
  - Integrate net-zero commitments into corporate governance, skills, and culture (e.g. define roles for Board and senior management for ownership, oversight and responsibility for net-zero targets; provide training and development to support teams and individuals to embed net-zero into the organizational culture and practices; explore potential incentives, such as compensation, promotions, awards, linked to net-zero targets.)
  - Implement sector-specific strategies for decarbonization, as appropriate, in order to support efforts by clients and real economy actors to align their practices with appropriate sectoral pathways to net-zero (e.g., facilitate transition financing for companies in different sectors in particular high-emitting or hard-to-abate sectors; develop and roll out products that help accelerate and de-risk decarbonization in the real economy and investments in climate solutions; work on products or services that can catalyze the net-zero transition by de-risking and unlocking emerging technologies).
  - Work with appropriate actors to facilitate an orderly, just, and affordable transition (e.g., engage with client, portfolio companies and governments to understand and, as appropriate, mitigate localized negative social impacts).

- Engagement
  - Engage with client and portfolio companies to encourage and, when feasible, enable them to also make credible voluntary net-zero commitments (e.g., encourage net-zero alignment and support the development and implementation of transition

plans; support client and portfolio company alignment of entity-level trajectories with economy-wide trajectories towards net-zero); see Box 2.1 for an initiative in Japan. Hands-off divestment, in isolation, is unlikely to be an effective strategy to effect social change for the transition. This requires greater transparency of expectations and correction mechanisms and incentives for accountability where implementation falls below firms' transition plans and targets over time.

- Policies
  - Establish, disclose, and apply policies and conditions related to high-emitting sectors and associated low-emission technologies (e.g., consider policies to phase out financing of unabated fossil fuels).
  - Establish, disclose, and apply policies and conditions on the use of carbon credits and offsets (e.g., regarding prioritizing mitigation actions to reduce direct emissions before offsetting with carbon credits, only using carbon credits for residual emissions, to neutralize residual financed emissions with permanent removals).

## 3. Capacity constraints and challenges

While many FIs have responded to calls from international networks and made commitments to achieve net-zero for operations and their investments, many challenges remain. Below are some of the key challenges, some of which can be amplified in developing countries contexts:

- **Lack of enabling environment and professional capacity for net-zero transition planning.** FIs rely on accurate and credible emissions reporting from their clients and portfolio companies in order to calculate their financed emissions. There is currently limited robust and forward-looking emissions data available to FIs, with significant gaps for small and medium enterprises, emerging markets and

developing countries, and certain sectors. And in many developing countries there is a general lack of trained professionals for measuring portfolio alignment and to undertake data assurance. Capacity building also through the engagement of public bodies in this area is critically needed as a groundwork for net-zero commitments, as well as supporting public policies to improve the availability of information, such as corporate disclosures, which would enable FIs to have access to the necessary corporate level information.

- **Lack of key inputs for target setting and transition planning.** For most companies and FIs embarking on net-zero target setting and transition planning, one of the first hurdles they face is the limited availability of credible data and reference points. While some jurisdictions have launched ambitious regulatory initiatives in this area, the lack of clear and publicly announced policies in many countries has made this exercise particularly challenging. While there has been notable progress in the development of climate reference scenarios, such as those issued by the NGFS, limits on their usage and applicability remain[12]. For example, greater sectoral granularity is needed and considerations should be given to non-linearity of transition pathways for some countries and sectors. In addition, some tools for setting or verifying net zero targets have been developed mainly based on the 2050 net zero timeline that are not fully applicable to potential users under other timelines.

- **Pressures to relax pledges to maintain short-term profitability**
  An FI journey to net-zero is usually planned over an extensive period of time. Hence, FI need to institutionalize commitments including accountability mechanisms for interim and long-term targets. Indeed, and among others, shareholder rotation, as well as

[12] The NGFS is working on improving the usability of the NGFS climate scenarios by enhancing their granularity (including by downscaling variables at country level and expanding the number of represented sectors), improving their overall macroeconomic modelling and sectoral dynamics as well as the modelling of acute and chronic physical risks.

unforeseen changes in cost-structures or profitability, for example caused by a pandemic or geopolitical tensions, risk to incentivize boards and investors to relax pledges over time in order to maintain short-term financial returns. Yet, progress on institutional investors' growing emphasis on long-term enterprise value and commitment to net-zero in their engagement strategies could help foster greater commitment to net-zero pathways despite short-term profit fluctuations.

- **Difficulty in accounting for managed phase-out of high-emitting assets**
  FIs' net-zero commitments cannot be achieved without transitions of their clients and portfolio companies. Some FIs could support managed phase out of high-emitting assets of clients, such as acquisition of coal-fired power plants with a clear objective to retire or decommission the assets over time. Such financing may lead to a temporary increase of financed emissions and risk exposures in the short-term even when their carbon intensity is improved over the longer-term. These possible short-term side-effects may disincentivize FIs to provide transition finance to transform high emitting sectors. More work is needed to determine how FIs with net-zero commitments can finance the managed phase-out of high-emitting assets in ways that are consistent with their commitments, and how those commitments are reported.

## 4. Recommendations to enhance commitment credibility

The SFWG acknowledges the growing number of FIs adopting voluntary net-zero and/or sustainability commitments. In order to ensure that these commitments truly support an orderly, just and affordable transition, it is important that they are deemed credible to send the necessary and appropriate signals to the real economy. During 2022, SFWG members benefitted from engaging with market actors, voluntary standard setters, think tanks, and international organizations who are active in this space;

collectively, these stakeholders have contributed to a sense of emerging "market practices" to be adopted and adapted by the majority of FIs making net-zero commitments, being mindful of the size, business model of entities, and jurisdictions in which they operate. Through these consultations and knowledge exchanges, the SFWG has developed voluntary recommendations for private sector financial firms and for governments to enhance the credibility of FIs' commitments.

### I. Recommendations for private sector FIs

When making voluntary net-zero commitments, FIs could consider the following recommendations:

- **Recommendation 1: Apply commitments, where possible, to all operations, financing, products, services, and business lines, and be in-line with holding the increase in the global average temperature to well below 2 degrees Celsius above pre-industrial levels, and pursuing efforts to limit the temperature increase to 1.5 degrees Celsius above pre-industrial levels.** Where possible, FIs *should consider integrating voluntary net-zero commitments into their business strategy, engagement, policies, corporate governance, risk management, skills, and culture. Institutions should establish, disclose and apply relevant strategies, policies and conditions, including policies to disclose, transition and phase out financing of unabated GHG-intensive activities/assets, or policies on the use of carbon credits. Institutions can work with appropriate actors to facilitate an orderly, just, and affordable transition FIs that have made voluntary net-zero commitments should also identify actual or potential adverse impacts of transition and set policies to prevent and mitigate such impacts. FIs shall also cover scope 1 and 2 emissions, and, where data permits, material scope 3.*

- **Recommendation 2: Engage with clients to align practices with appropriate sectoral pathways** *and engage with client and portfolio companies to encourage and, if feasible, enable them to make voluntary net-zero commitments and implement them.*

- **Recommendation 3: Accompany end-date targets to achieve net-zero with science-based, time-bound interim targets, benchmarked against credible tools, pathways and frameworks, that demonstrate a feasible path towards net-zero.** *Institutions should consider including, (1) a thorough baseline analysis of current portfolio emissions, ideally performed at the time the commitment is made (within two years of making a net-zero commitment) and (2) adopt an emissions target to be achieved within a certain timeframe – e.g., a mid-term five-year target. Commitments and targets should also be science-based and ideally verified by a third party.*

- **Recommendation 4: *Use independent third-party verification/assurance*** *(e.g., by auditors, consultancies, NGOs or assurance companies), keeping in mind the domestic circumstances. Third-party verification bodies should be transparent in the methodology they use to verify information in transition plans.*

### II. Recommendations for relevant authorities, international organizations and networks

Relevant authorities should apply the transition finance framework developed by the SFWG – and in particular keep an eye to the recommendations in Pillars 2 (reporting framework of transition plans) – to support voluntary net-zero commitments and create an enabling environment.

- **Recommendation 5: Relevant authorities and regulators in individual jurisdictions, and in accordance with country capacity, their own net-zero commitments, and domestic laws, could consider encouraging voluntary FI net-zero commitments, articulating how they will support and/or engage with voluntary FI net-zero commitments and corporate net-zero transition plans in a manner consistent with their mandates and objectives, in addition to domestic sustainability reporting requirements.** Relevant authorities can help the real economy transition by providing clarity on how they plan to achieve the goals of the Paris Agreement, as well

as meeting their Nationally Determined Contributions. This could include implementing mitigation policies coherent with climate goals and establishing policy frameworks that address existing market failures and enable private sector financial flows.

- **Recommendation 6: Relevant international organizations, MDBs, initiatives and networks should coordinate their efforts to support ambitious voluntary financial sector commitments, including by providing capacity-building services; supporting efforts to improve comparability, transparency, and broad-based access to tools, technologies and methodologies (also suitable for developing countries); and offering platforms for knowledge and data sharing.** International networks, NGOs and think tanks specialized in carbon accounting, science-based target setting, and scenario development should devote resources to facilitate uptake and use of tools. MDBs and other IOs could promote knowledge sharing and technical assistance programs to countries that request them.

## 5. Recommendations to progressively enhance accountability of financial institutions that have made voluntary commitments

Despite the fact that a significant number of financial institutions still needs to build capacity to take net-zero commitments, and that global challenges remain (including in data and reference scenario availability), improving early on greater accountability of these commitment is needed to support scaling-up climate-aligned financial markets, promote market integrity, and prevent forms of sustainability-washing.

Accountability for credible, voluntary, financial sector net-zero commitments can help inform transition plans to achieve net-zero and other sustainability goals. Furthermore, accountability for these commitments will depend on transparent, understandable, monitorable information about net-zero

performance that can be tracked and evaluated. Yet, initiatives for tracking and assessing progress of financial sector net-zero alignment are still in their early stages. A few nascent international initiatives and national-level tracking efforts are developing the relevant capabilities. Current efforts mainly consist of voluntary, self-reported data platforms to register and update progress on climate-related commitments, or high-level assessments of voluntary net-zero commitments that do not specify plans for periodic updates. IOs, networks and initiatives, such as the OECD, Climate Data Steering Committee, GFANZ, Climate Policy Initiative, and World Resources Institute are starting early work to fill existing gaps. A number of jurisdictions are also taking steps to incorporate transition planning and net-zero target setting and periodic update on progress towards achieving those targets into their disclosure requirements. These international initiatives should ensure broader and global representation, inclusiveness, and transparency to deliver accountable outcome.

Recognizing that these voluntary commitments have been especially made, in developed countries, and that many EMDE's may require additional technical assistance to develop the capabilities to identify, set and track net-zero and other sustainability commitments from FIs, the SFWG has identified a set of recommendations to voluntarily and gradually enhance accountability of these commitments. The SFWG recognizes that these commitments are still at an early stage and are voluntary, and that delivery on net-zero commitments will require a joint effort from the public and the private sector and will depend on actions taken at the entity level and in the aggregate. Accordingly, the recommendations include voluntary actions targeted at private sector FIs, market alliances, governments, international organizations, and networks, acknowledging that depending on entity's readiness, these recommendations could be considered and implemented at different paces. The SFWG will continue discussing challenges and progress with the implementation of FIs' voluntary commitments to further enhance credibility gradually.

- **Recommendation 7: Provide publicly available, consistent and comparable information on metrics, scenarios, methods, and benchmarks used to set targets.** FIs that have committed to a net-

zero target should monitor and disclose a consistent, comparable, and reasonable range of metrics in a consistent and comparable way to assess progress in implementing net-zero strategy and priorities (e.g., targets for GHG emissions or intensity reductions; support and scaling of climate solutions and sustainable finance; transparency on engagement strategies; portfolio alignment metrics such as implied temperature rise, internal implementation, and where relevant, retirement of GHG-intensive assets). Information should be interpretable and supported by up-to-date science, with transparency on the methodology used and consistent with data availability over time.

- **Recommendation 8: Report annually on institutional progress and provide information on any gaps or challenges to meeting targets.** Institutions that have voluntarily committed to a net-zero target should establish efficient processes for internal monitoring and for external reporting on progress and any possible corrections. FIs that have voluntarily committed to a net-zero target should also commit to revisiting and, if appropriate, revising interim targets and pathways based on evolving market dynamics, technological developments, current policy environment, and shifting abatement cost curves. These FIs should provide publicly available information that clearly explains any adjustments to interim targets and pathways. These FIs are encouraged to share implementation experiences and lessons learned, to encourage clear-eyed assessment of progress against targets. FIs can support efforts to track progress by engaging with relevant initiatives and providing transparent, credible, and comparable information at the FI level.

- **Recommendation 9: Work together to encourage accountability, share lessons learnt, and address common challenges, including through joint initiatives of FIs that have made net zero commitments**. FIs that have voluntarily committed to a net-zero target should learn from one another through discussion and share detail of tools, data, and methodologies used, as appropriate, to enhance comparability across FIs and suitability to local contexts and

considerations, and to enable and accelerate delivery on net-zero commitments. These initiatives should support comparability, which will advance efforts to track progress in the aggregate and drive further momentum and accountability.

- **Recommendation 10: Governments and international organizations and networks could, as appropriate and applicable, consider measures to enhance the accountability and comparability of financial sector net-zero commitments in a manner consistent with their mandates and objectives as well as local laws and regulations, recognizing the voluntary nature of such commitments.** National authorities and regulators could consider, within their mandates, some form of progress monitoring on regulated FIs, encourage the use of comparable parameters to report on and monitor, support domestic or cross-border data platforms to serve both regulators and financial market participants. International organizations and networks could continue to work towards more comparable technical approaches, methodologies, and metrics for net-zero target-setting, progress tracking (including in aggregate) and implementation that consider international/regional regulatory developments and national contexts. Jurisdictions, international organizations and/or networks engaged in efforts to track progress of firms who have voluntarily committed to net-zero are encouraged to provide progress update to the G20 Sustainable Finance Working Group.

# Chapter III - Scaling up Sustainable Finance Instruments with a Focus on Improving Accessibility and Affordability

## 1. Background

The sustainable finance market has grown rapidly over the past years, and both market participants and national authorities are increasingly recognizing the importance of sustainable finance instruments in channeling capital to address climate change and support other SDGs

As a proportion of global finance, however, the sustainable finance market remains small, and many firms, especially those in developing countries and SMEs, continue to face significant challenges accessing this growing market. For example, green bonds issued by 55 lower middle-income countries accounted for only 1.7% of the global issuance. Similarly, Islamic debt instruments such as Green Sukuk have mobilized less than US$ 15 billion to date (when compared to the multi trillion-dollar Islamic finance global assets). And the global sustainable fund market is estimated to account for just 4% of the total global fund market by value. Firm size is also important as SMEs continue to have limited access to sustainable finance instruments despite their roles as essential drivers of economic activity, employment in most countries and just transitions. Where access to these instruments is available, developing countries and SMEs typically face high financing costs. Addressing these investment gaps will ultimately be instrumental in achieving the goals of the Paris Agreement and 2030 Agenda

Against this background, the SFWG has included specific actions (i.e., action 5, 15, 19), in the G20 Sustainable Finance Roadmap, to promote the development of climate and sustainable-aligned financial instruments, blended financial instruments and mechanisms, engineering de-risking facilities products and markets, including sustainable capital market instruments, to eliminate barriers hampering the scaling up of private sector sustainable investment. In 2022, the SFWG, by working with knowledge partners and drawing input from the private sector, has identified such

barriers to scaling up sustainable finance, taken stock of a few focus areas and developed a set of recommendations for jurisdictions to help improve access of corporates (including SMEs) to domestic and international sustainable finance markets, in an affordable way.

## 2. Barriers and Challenges

The SFWG has identified both generic financial market and sustainable-finance specific barriers to scaling up sustainable finance instruments. Generic barriers are those that limit development of and access to financial markets more broadly. For example, without the key market infrastructure like a well-functioning banking system, efficient capital markets, sound development policies, and effective risk management instruments (e.g., foreign exchange risk), it is difficult to scale any financial market. Those issues remain foundational and will affect the efficacy of sustainable finance-specific policies more broadly. The SFWG recognizes the significant role those generic barriers and public policy can play in jurisdictions' access and cost of financing, as well as in the creation of a pipeline of high-quality sustainable projects. While the scope of this report is primarily to identify and provide recommendations to surmount sustainable finance-specific barriers, there is significant overlap and interplay between the two. Sustainable finance-specific barriers include:

- **Inadequate awareness and expertise**. In many countries, regulators, financiers, and corporates do not yet or do not sufficiently incorporate sustainability into their decision making or lack the technical and financial expertise to access and use available sustainable finance instruments. For example, many developing countries lack the capacity to initiate, manage, and carry out demonstration projects to showcase the viability of sustainable projects, if done successfully (through internal efforts or international assistance), these can help investors better assess the risks and opportunities of sustainable projects in emerging markets and can help reallocate capital towards sustainable investments in the future.

- **Lack of sustainable investment alignment approaches and supportive regulatory frameworks**. Many jurisdictions lack a clear approach, rules,

and regulations to improve risk management and align investment towards sustainable ends. This can also include a lack of regulations for alternative financing mechanisms, such as Islamic finance. This can raise the risks of green and SDG washing and deter investors from utilizing sustainable finance instruments. Moreover, developing and implementing sustainable finance regulatory frameworks is often challenging due to difficulty to coordinate among disparate domestic agencies.

- **High cost of sustainability products and data**. International investors are increasingly seeking more detailed and higher quality sustainability information that is not available in traditional financial statements. However, most corporates in developing countries and most SMEs are unlikely to provide such information due to either the lack of local regulations on sustainability reporting, the high costs associated with producing such information, or both. Data limitations contribute to the high cost of sustainable financial products, which typically carry additional costs, such as the need to monitor and verify the use of proceeds. Especially for SMEs, this may make access to capital more difficult.

- **Lack of international assistance, including green de-risking facilities**. Many low-income countries have low credit ratings, with many below investment grade. Technical assistance programs have helped jurisdictions to improve underlying institutions and infrastructure thereby attracting investment, and international de-risking facilities, including those provided by MDBs, have played a positive role in channeling international finance to sustainable projects. However, the current supply of technical assistance, de-risking facilities, and other blended finance instruments only covers a fraction of the demand and therefore needs to be improved and increased.

- **Lack of green or sustainability aligned demonstration projects.** In many nascent sustainable finance markets, a key hurdle that deters investor participation is the perceived risks on policy, market, technology, operation, and green washing. Low return profiles of sustainable

projects can be an obstacle as well. Some of these perceived risks could be addressed by demonstration projects that demonstrate to investors that risks are manageable and the returns acceptable. However, many developing countries lack the capacity to initiate demonstration projects on their own and require international assistance.

- **Low investment due to a risky environment.** Due to the increasing severity, unpredictability, and frequency of risks, the scaling up of investments in transitional activities in low-income countries are lagging behind. Those risks include political risks such as conflicts, climate risks like drought, geo-physical risks such as earthquakes, as well as epidemics and disease outbreaks.

- **Limited choice and access to sustainable finance instruments.** There is a paucity of sustainable finance instruments designed for use by firms in low-income countries and by SMEs. Many firms in low-income countries and SMEs struggle to find sustainable finance instruments that apply to their primary industries, and SMEs often do not have the expertise nor sufficient capital to access sustainable loan, sustainable sukuk and sustainable bond markets.

## 3. Emerging options for enhancing affordability and accessibility of sustainable finance

To address key barriers to scaling up sustainable finance instruments, the SFWG has drawn on inputs from country experiences and by relevant IOs and KPs to the following key areas of focus and reviewed some of the emerging options: capacity building, de-risking facilities, policy incentives, and deploying digital technologies, and sustainable supply chain financing. This report has focused on finding solutions to barriers specific to sustainable finance, noting that many generic barriers to financial market development are being discussed in other platforms and by other IOs.

## 3.1. Enhancing capacity building on sustainable finance

Stakeholders - governments, stock exchanges, asset owners, financial firms, and corporates - are in need of expertise and skills in sustainable finance to support the design and implementation of sustainable finance policies and roadmaps in order to fulfill their respective commitments related to the SDGs and the Paris Agreement. The capacities needed fall in areas including awareness raising on risks and opportunities associated with climate change, and other sustainability factors; policymaking and implementation by government agencies on strategies and roadmaps for sustainable finance; development of alignment approaches, disclosure requirements and fit for purpose sustainable finance data ecosystems, and other SDG alignment tools; identification and management of environmental risks, as well as business and product development and project & key performance indicators (KPI) achievement evaluation by financial firms in support sustainable activities.

SMEs have an important role to play in the transition to low- GHG emission development, but most of them do not have, or seek, access to the sustainable finance market to maximize their potential impact, due to high costs or the lack of knowledge and capacity. Local FIs, the key providers of finance to SMEs, also face capacity and awareness constraints related to sustainable finance. Engagement with the ISSB, in its efforts to develop global baseline disclosure standards, can also play a role in reducing reporting costs for SMEs.

Several IO, MDBs, technical assistance providers, international networks, and country authorities, have devoted resources to capacity building which have yielded positive results in shaping sustainable finance policy frameworks, sustainable finance instruments, and disclosure in a few countries (see boxes in annex). These efforts, with relatively low financial costs to the MDBs and are often supported by donors, could be scaled up to have much greater impact as they help to make domestic financial systems in a given country more sustainable.

## 3.2. Scaling up blended finance and de-risking facilities

Blended finance mechanisms, including de-risking facilities have been introduced as innovative financing tools into the international development community in recent years, notably with the adoption of the SDGs and the Paris Agreement in 2015. In 2022, blended finance was one of the key focus of the G20 Development Working Group (DWG) which has been working on developing G20 Principles to Scale-Up Blended Finance in Developing Countries, Including Least Developed Countries (LDCs), and Small Island Developing States (SIDS)[13].

Blending practices vary across institutions, including the use of concessional and non-concessional public finance from MDBs, other Development Finance Institutions (DFIs) and development aid programs, and to a lesser extent, donors and other third parties. A key benefit of blended finance mechanisms, as opposed to purely public finance, is that it crowds in private capital and can expand the total amount of sustainable finance available and thereby improve the affordability and accessibility of sustainable finance. It can also operate as a mechanism to create sustainable markets by being the initial finance that allows a market or sector to develop.

Many countries, MDBs, IFIs and international platforms have presented successful cases of using blended finance mechanisms in crowding in private sector financing for sustainable investments. However, the supply of such operations, mainly offered by MDBs and other IFIs, is far below the demand from developing countries for sustainable investments. Reasons for this problem include: the scale of blended finance operations is constrained by the availability of concessional financing and grant funding; blended finance involves complex relationship management among donors, private financiers, and governments and requires very specialized design and governance; administrative costs of blended finance operations are high due to their small size, slow disbursement, and complexity of transactions. MDBs also have to be mindful of their own credit ratings, since they also have their

[13] https://g20.org/3rd-g20-dwg-prioritize-blended-finance-to-overcome-developing-countries-sdg-funding-constraints/

limits with respect to the risk they are able or willing to take. There can also sometimes be a tradeoff between a project's scalability and impact. Smaller scale projects can have significant development impact but can be more difficult to finance. Finally, the need for specific expertise in financial engineering and the high costs and long duration of project preparation and implementation are major challenges for MDBs in scaling up blended finance and other de-risking facilities.

## 3.3. Introducing policy incentives

Public policy can be used to enhance access to sustainable finance or improve the risk and return profile of sustainable investments in order to incentivize private sector participation. In the G20 Sustainable Finance Roadmap, the SFWG has committed to work with other G20 groups, relevant international organizations, networks and initiatives as appropriate, to analyze the implications of public policy levers on market signals that could influence sustainable investment decisions. These policy instruments could include, among others: carbon taxes, emission trading mechanisms, fiscal subsidies for sustainable activities, governments' green procurement as well as regulatory measures to improve transparency or improve risk management and thus indirectly encourage low-GHG emission technologies across all sectors (see Table 3.1 in the annex for illustrative examples). Non-pricing policy measures can also play an important role as part of the policy toolbox. If paired with a wider enabling policy environment, all these policy incentives can reduce the risk of investments in sustainable activities, enhance the expected investment return of these projects so as to and attract private sector capital for green and sustainable investment, and thereby improve the affordability and accessibility of sustainable finance. These policies should be seen as complementary to ambitious financial sector policies, as they are mutually reinforcing. Real sector price signals are important to keep financing flows to sustainable investments. Finally, as stressed during the G20 forum on international policy levers for sustainable investment, the importance of innovation in bridging the gaps in the financing of transformative

technologies for climate transitions, especially in developing countries and smaller companies cannot be overstated.

## 3.4. Developing and deploying digital technologies

Digital technologies can help to reduce the cost of data collection, assessment and reporting costs, which in turn will assist in the identification or labelling of sustainable assets and activities, and the tracking and disclosure of ESG information. Sustainable finance instruments often require high-quality disclosure of their environmental or social characteristics and purpose. For sectors such as agriculture, manufacturing, construction, and tourism, on which many developing economies rely, data collection and processing can be costly and laborious. There are further challenges for SMEs in understanding and implementing the frameworks for environmental disclosure. The development and deployment of relevant emerging technologies could allow SMEs and other firms to access sustainable finance at more lower costs.

Financial technologies have been playing an important role in promoting inclusive development of the financial sector. For example, the development and deployment of mobile payment systems has facilitated the coverage of financial services to rural populations all over the world. In recent years, financial and other digital technologies have also been used by financial firms in a number of countries to collect granular data underlying ESG rating, environmental benefit measurement and risk detection, sustainable loan labeling, trading of sustainable assets, and to implement sustainable supply chain financing (SSCF). SSCF, in particular, can enhance the access to sustainable finance to SMEs and reduce their funding costs.

The trading and management of sustainable assets will also be greatly enhanced by digital technologies. Transactions of sustainable assets can be integrated with climate risk analysis, credit risk management, supervision and other relevant fields using technologies such as artificial intelligence, cloud computing, distributed ledger technology, among others. As such sustainable

financial technologies are still nascent, they have not yet been able to be deployed broadly, particularly to developing countries.

## 3.5. Adopting sustainable supply chain financing

Sustainable supply chain finance (SSCF) integrates ESG considerations into regular supply chain finance, using consistent methodologies and data to rank a supplier's sustainability performance and then providing preferential financing for suppliers with good sustainability performance.

Parties involved in SSCF may include FIs, focal companies, suppliers (which are typically SMEs), and third-party rating institutions. Fintech tools, such as digital platforms and blockchain-based technologies, are also used to facilitate the operations of such mechanisms. SSCF practices have served suppliers across various sectors like manufacturing and retailing of electronic equipment, textile, agriculture, detergent, and other home care appliances in national economies including China, the United States, Germany, Pakistan, and others, and regional economies including Africa and Southeast Asia. These mechanisms have substantially enhanced the access of SMEs to sustainable finance and reduced their funding costs.

The two main mechanisms of a SSCF include: 1) low-cost loans to suppliers based on a focal company's credit; and 2) payment advances to suppliers based on transactions between suppliers and the focal company. The low-cost capital may be provided by FIs like banks or focal companies themselves. Suppliers are eligible to such SSCF with low cost if their sustainability scores reach the threshold set by the focal company or are accessible to different discount rates depending on their sustainability scores. Their sustainability performances are assessed and verified by the focal company itself or a third-party rating institution. Various jurisdictions, including the European Union, are introducing due diligence regulation calling on companies and financial service providers to identify and respond to environmental and social issues

across their supply chains and value chains.[14] Regulators are also considering accompanying measures as part of these expectations, under which government support for SSCF can play an important role.

## 4. Recommendations

The SFWG makes the following recommendations to MDBs, country authorities, and private sector players, with a view to enhancing the accessibility and affordability of sustainable finance, including for developing countries and SMEs. These recommendations are a non-exhaustive list of actions that could be used on a voluntary basis to address the key barriers to scaling up sustainable finance according to country specific circumstances, leveraging Action 14 and 15 of the Roadmap.

**For MDBs, technical assistance providers, and other international organizations:**

- **Recommendation 11: Devote more resources and expertise to de-risk finance operations for sustainable activities in developing countries.** MDBs should devote more resources, within their mandate and capital constraints, to support blended finance operations and technical assistance programs to help clients prepare bankable and sustainable projects and programs for developing countries. They should also encourage staff to work on blended finance projects and programs through their internal incentive structure and mobilize resources across the organization through the use of both concessional and non-concessional finance. It would be desirable to develop a complete solution for blended finance, from identification and preparation of bankable projects to blended financial closure, taking into account the G20 DWG work on Principles to scale up Blended Finance. MDBs and DFIs should collaborate further to build relevant knowledge and understanding with respect to market structure, regulations, institutions

[14] See broadly https://www.business-humanrights.org/en/big-issues/mandatory-due-diligence/

and the local political economy dynamics within developing countries. Smart and innovative blending operations should also avoid crowding out private capital. Furthermore, the use of climate-related risk insurance has potential to increase the supply of blended financing mechanisms (see Box 3.2).

- **Recommendation 12: Enhance and expand capacity-building services, including via training of officials, regulators and financial sector professionals, to support the design of sustainable finance policies and roadmaps in developing countries, and enhance capacities of local FIs.** MDB, technical assistance providers, and international organizations can focus on capacity building programs that address the development of sustainability alignment approaches, sustainable finance policies and regulation (incl. disclosure requirements), verification services, ESG rating methodologies, policy incentives, green finance product development, and application of fintech tools to sustainable finance. The forms of capacity building can include training activities as well as tailored technical assistance programs. This should also include **support to local banks and insurance companies that have in place or want to develop sustainable finance strategies and credible net-zero transition plans.**
- **Recommendation 13: Explore alternative sustainable finance mechanisms, such as by serving as corner-stone investors for sustainable or transition projects or organizing demonstration projects in developing countries to support the generation of an investible SDG- or Paris-aligned pipeline.** MDBs and other IFIs can help launch demonstration projects investing in typical sustainable and transition activities in developing countries with a clear purpose of learning about ways to reduce political, business, and operational risks when implementing similar projects. These learnings should help improve funding access and reduce funding costs of similar projects. MDB participation could include acting as providers of funds or of technical assistance for project design and operations.
- **Recommendation 14: Promote international collaboration to improve the comparability and interoperability of sustainable investment alignment approaches as appropriate and applicable, on voluntary basis, in order to facilitate cross-border sustainable investment flows**. Cooperation between MDBs bilateral development finance institutions, technical assistance providers, country authorities and international

organizations to develop internationally comparable indicators or tools may facilitate cross-border and cross-market sustainable capital flows. This could be achieved through the comparison of alignment approaches, such as taxonomies and standards, and the identification of areas of commonality and differences (e.g., Common Ground Taxonomy by the International Platform on Sustainable Finance). MDBs could promote regional collaboration on alignment approaches to facilitate the development of regional sustainable finance markets.

**For country authorities and domestic FIs:**

- **Recommendation 15: Develop approaches to align investment with sustainability goals.** Aligning on how market participants should identify sustainable and transitional activities is foundational to the development of a well-functioning sustainable finance market, as it helps to protect market integrity and provides the basis for developing products and allocating policy incentives. Governments and regulators could use their convening power to develop, adopt, or encourage systems to align investment with the SDGs and the Paris Agreement, including, but not limited to, principle- or taxonomy-based identification schemes and guidance on labeling of sustainable financial products. Jurisdictions are also encouraged to coordinate and learn from one another to adopt best practices and promote interoperability among approaches.

- **Recommendation 16: Help the ISSB to better support developing countries and SMEs.** Therefore, all countries and relevant national corporate reporting standard setters based on their specific domestic circumstances, should actively participate in the ISSB's work and be innovative in developing best practices to lower the cost of disclosing and accessing sustainability data. For example, national or local governments could consider developing, or encourage the private sector to develop, sustainability data platforms to serve financial market participants.

- **Recommendation 17: Develop the necessary infrastructure for domestic sustainable loan and bond markets.** Experiences from

jurisdictions with more developed sustainable finance markets suggest that green loan and green bond markets can be scaled up quickly when jurisdictions are equipped with the basic market infrastructure for banking services and bond markets. In developing these markets, governments and regulators should have a clear strategy towards the identification and labelling of green loans and bonds, the methodologies for validating the environmental benefits of underlying activities, and necessary sustainability disclosure requirements or standards. For instance, the benefits of the standardization of targets and key performance indicators within a sector for transition instruments such as sustainability-linked bonds could be pursued. Governments could also lead by example by issuing sovereign sustainable financial instruments which, through a demonstration effect, can have positive spillovers on the methodologies and standards of verification and disclosure for corporate sustainable issuance[15].

- **Recommendation 18: Introduce policy incentives to scale-up sustainable finance instruments.** Many policy incentives could be considered by country authorities to encourage participation of private capital in sustainable investment. This could include government subsidies for green loan and green bond verification, correcting market signals through environmentally-related taxes and other price-based instruments, interest subsidies for green projects, fiscal incentives for green bonds and central bank actions– within their mandates - that could increase the demand for sustainable financial assets. Other policies, such as emissions trading schemes or other pricing mechanisms and regulatory action, can help create an enabling environment to boost the demand for and reduce the costs of sustainable products, services, and technologies. Jurisdictions can select an optimal mix of these policy incentives based on their local circumstances.

- **Recommendation 19: Deploy digital technologies to reduce the costs of sustainable finance operations.** Digital technologies have the potential to increase the efficiency and reduce the costs of sustainable finance operations. MDBs, technical assistance providers, and relevant

[15] https://www.bis.org/publ/qtrpdf/r_qt2209/images/chap4-gra4.jpg

international organizations and networks should devote more resources in assisting and providing capacity building for developing countries to adopt and deploy such technologies. Examples of use cases of digital technologies include identification and labelling of sustainable activities and assets, tracking and disclosure of granular ESG information, trading and management of sustainable assets.

- **Recommendation 20: Develop sustainable financial products suitable for use by SMEs, and incentivize their uptake, such as in the case of SSCF.** SMEs often lack access to sustainable finance capital market instruments due to high costs for them to access capital markets and lack of sustainability rating or accreditation. Adopting SSCF in a phased manner while considering country circumstances, for example, is one way to help solve both issues. Governments should encourage or provide incentives to firms to adopt SSCF and other innovative sustainable finance products and services for SMEs. MDBs could support this effort by offering technical assistance to developing countries.

- **Recommendation 21: Support SMEs and local FIs to develop their awareness and capacity in addressing climate change to reduce their impact.** SMEs often have more limited information and capacity to tackle climate change. Larger local FIs' connection with wide-ranging SMEs could be an important channel to overcome this issue, as they could provide valuable advice based on rich information on SMEs' business strategies and challenges they face. This should include work to support local banks, pension and sovereign wealth funds, and insurance companies to develop and implement sustainable finance strategies and credible net-zero transition plans. This channel is particularly important for jurisdictions with a bank-centric financial system, including developing countries, where greening supply chains can have a significant impact in achieving the country's climate change commitments

# Chapter IV – Reporting on progress on the G20 Sustainable Finance Roadmap

In 2021, the G20 re-established and elevated the G20 Sustainable Finance Working Group (SFWG) to scale up sustainable finance that supports the goals of the 2030 Agenda and the Paris Agreement. The same year, the G20 FMCBG endorsed the voluntary and flexible G20 Sustainable Finance Roadmap produced by the group and the focused work on three priority areas. Building on resources provided by several international organizations (IOs), networks, other initiatives, and G20 working groups, as well as feedback from members or collected during a series of consultations with stakeholders, this report takes stock of the progress made and existing practices improved in these three areas. It also summarizes the progress achieved in advancing the Roadmap reported to UNDP in its role as the SFWG's secretariat and can help in the identification of gaps for further technical assistance provision by IO's. The full details of the progress reported by both IOs and G20 members is available on an online dashboard on the SFWG's website which will be updated annually.

In addition, thirteen countries voluntarily submitted their work in the different focus areas of the roadmap[16]. While the detailed country reports can be found in the digital repository it is worth noting that five countries highlighted work on developing national taxonomies or collaborating in developing regional taxonomies and seven countries reported issuing sustainable financial instruments to enable the advancement of sustainable development while others reported working on setting standards and labelling to improve reliability, comparability and transparency. Additionally, another seven countries mentioned work on understanding sustainability risks whether through scenario analysis, risk assessment, or stress-testing. Five countries reported working on capacity building activities whether internally or externally in collaboration with other partner jurisdictions and

[16] The non-submission of country's voluntary inputs to the online dashboard does not imply that the country is not making progress to address the priorities identified in the Roadmap.

organisations. Five countries reported working on data topics either on establishing databases or enhancing sharing and interoperability. Finally, the reporting of progress is an on-going process as more jurisdictions are continuing to submit their voluntary progress tracking and others continue to update them on the online dashboard.

## Section 1: Reporting Progress on the SFWG's 2021 Priority Areas

### Topic 1: Improving comparability and interoperability of approaches to align investments to sustainability goals

Over the past few years, major efforts have been deployed to the development of approaches and tools to align financial investments with climate and other sustainability goals, which contribute to sustainable finance market development. However, if developed in silos and without due consideration of their interoperability, the proliferation of inconsistent approaches could generate market fragmentation and increase transaction costs, resulting in a higher risk of green and SDG-washing, and ultimately harming efforts to mobilize finance towards sustainable ends. In this regard, the SFWG developed a list of high-level voluntary principles for developing alignment approaches and recommendations for international coordination.

Some of the SFWG Knowledge Partners' progress is as follows.

***The International Platform on Sustainable Finance (IPSF) reported working on coordinating approaches and developing coherent sustainable finance frameworks/tools***, in areas that enable investors to identify sustainable investment opportunities across the globe. The IPSF work on transition finance will explore how sustainable finance alignment approaches such as taxonomies, labels and portfolio alignment metrics, corporate strategy and disclosures may integrate transition considerations. The IPSF also reported working on comparability and interoperability of taxonomies and has developed the Common Ground Taxonomy (CGT), contributing to international efforts to improve global comparability and interoperability of taxonomies.

***IOSCO published a Consultation Report on ESG Rating and Data Products Providers***, as it reported a lack of transparency about methodologies underpinning the sustainability ratings or data products which only cover limited industries and geographic areas leading to information gaps for investors seeking to follow certain investment strategies.

**Topic 2: Overcoming information challenges by improving sustainability reporting and disclosure**

Sustainability reporting remains incomplete and inconsistent across companies and jurisdictions impeding investors access to -useful sustainability-related information, which could lead to financial assets being mispriced by the market, with additional challenges facing the SMEs. This situation risks the market's integrity and undermines their ability to support the proper allocation of capital towards sustainability goals.

***Several regional or international frameworks already exist or are under development to help organizations assess and disclose sustainability-related information.*** These frameworks can support both companies' disclosures and firms' investment processes, by specifying a structure, definitions, metrics, and methodologies. The IFRS Foundation established the new International Sustainability Standards Board (ISSB) to develop a comprehensive global baseline of high-quality sustainability disclosure standards to meet investors' information needs. In this context, IOSCO welcomed the strong engagement from various stakeholders on the ISSB's exposure drafts and agreed on the criteria for IOSCO's potential endorsement of the ISSB's proposals. The endorsement process will begin after the ISSB has issued its final standards.

IOSCO has also begun work in collaboration with the international standard setters for audit and assurance to promote a common global approach to independent and high-quality assurance standards.

**Topic 3: Enhancing the Role of International Financial Institutions in supporting the goals of the Paris Agreement and 2030 Agenda**

***While MDBs have made good progress, there remains a gap between the scope of their climate work programs, including the provision of technical assistance, and the scale and speed required to achieve the objectives of the Paris Agreement and 2030 Agenda.*** In this regard, the MDBs reported working to scale up and accelerate their work in this area, enhancing the climate-related financing commitments, the engagement with governments in emerging markets and developing countries and the support for quality NDCs through financing and capacity assistance.

***Even though MDBs guarantee products continue to play a strong role in mobilizing private sector investments; Efforts are underway to innovate new products and adapt existing ones to attract private investments in newer areas***. The MDB Climate Working Group, launched at COP24, is working under a joint approach with six core areas for aligning with the Paris Agreement and covers all finance flows. For its operationalization, road testing methodologies are being deployed to finalize in time to meet MDB commitments, aiming to have this work completed and operational by 2023–24[17].

***At COP26, the MDBs released a "Collective Climate Ambition Joint Statement" which welcomes the growing ambition reflected in the new Nationally Determined Contributions (NDCs) and commits to support the delivery of these plans and to contribute to align their financing flows with the Paris Agreement.*** MDBs also committed to scaling up climate finance, operationalising new approaches to support NDCs and accelerating the realization of the objective of the United Nations Framework Convention on Climate Change (UNFCCC). In addition to that, MDBs are working on a new joint Long-Term Strategies Initiative that aims at supporting countries in the preparation and implementation of long-term low GHG emission and

[17] The methodology is designed to classify operations on a project-by-project basis, looking at their emissions profiles. In this context, projects are classified as corresponding to a jointly agreed-on positive list of project types that are considered universally aligned with the goals of the Paris Agreement in all contexts, or to a negative list of projects that are universally not aligned.

climate-resilient development strategies in the framework of sustainable finance.

***The Finance in Common Summit (FICS) operates as a platform for MDBs to work with regional associations of Public Development Banks (PDBs), as well as with the International Development Financing Club (IDFC) and individual institutions.*** PDBs are important actors of the global financial landscape: they manage USD 23 trillion of total assets and provide up to USD 2.7 trillion of annual investments, out of which more than 83% is from PDBs from G20 countries. FICS reinforces the coherence in PDBs' strategies and operations by accelerating their convergence towards shared standards and best practices, to deliver a more effective collective action for sustainable development. FICS produced a first "Progress Report to the G20" which contributes to and aligns with the objectives of the Roadmap. It includes concrete projects on the ground, efforts to develop taxonomies, or contributions to the Roadmap's actions.

## Section 2: Reporting Progress on the SFWG G20 Roadmap

Following the G20 Sustainable Finance Roadmap, this section provides an overview of the progress made in each of the five Focus areas proposed: (1) Market development and approaches to align investments to sustainability goals; (2) Consistent, comparable, and decision-useful information on sustainability risks, opportunities and impacts; (3) Assessment and management of climate and sustainability risks; (4) Role of IFIs, public finance and policy incentives; and (5) Cross-cutting issues.

### 1. Focus Area 1: Market development and approaches to align investments to Sustainability Goals

Eighteen IOs, networks and initiatives have reported contributing to one or several of the five actions in the Focus Area 1. In particular, IOs reported deploying several efforts to set frameworks and guidelines to overcome obstacles in the financial system and facilitate the achievement of the SDGs and the Paris Agreement. Additionally, some reported planning to enable interoperability while working on a research and development agenda, while

others have been working on providing more clarity and transparency about commonalities and differences between taxonomies-based approach, and other alignment approaches. Some work has also been developed on building transition pathways in the sustainable infrastructure landscape, and some institutions have been working on developing partnerships for the promotion of sustainability.

***Overcoming barriers.*** UNEP FI is proposing (expected formal launch by the last quarter of 2022) a set of principles for responsible banking and a legal framework to identify and overcome the barriers to a financial system that facilitates the achievement of the SDGs. Additionally, UNEP and UNCTAD have developed a methodology[18] to measure the number of companies publishing sustainability reports; and IPSF and DESA continue exploring sustainable finance alignment approaches.

***Improving coordination.*** Institutions such as IFC (SBFN), UNCTAD (SSE), UNDP, UNEP FI and World Bank have been working actively on the development, at a national level, of alignment tools and approaches (initially focused on Sustainable Finance Taxonomies), and other activities and strategies that can be implemented to promote sustainable finance in countries. These entities have also been providing engagement platforms for their members to share trends and developments in specific topics of interest for better regional integration to shape a coordinated approach with other members. An example of such coordinated work is the Working Group on Sustainable Finance Taxonomies in Latin America and the Caribbean (GTT-LAC). The Coalition of Finance Ministers for Climate Action (the Coalition) has also served as a platform for dialogues[19] with representatives from ISSB and TNFD to encourage coordination around corporate sustainability reporting practices.

The IMF, WBG, OECD, and BIS are working jointly to operationalize and design a common minimum guidance for the G20 high-level voluntary principles for sustainable finance alignment approaches, including taxonomies[20]. The

[18] https://wesr.unep.org/article/indicator-1261
[19] https://www.financeministersforclimate.org/news/hp5-stakeholder-dialogue-corporate-sustainability-reporting-updates-issb-and-tnfd
[20] Forthcoming joint report expected to be published in October 2022

guidance builds on previous work such as the Common Ground Taxonomy and the input paper submitted to the SFWG by UN-DESA and IPSF in 2021[21]. It will apply primarily to asset level approaches, with a focus on taxonomies. Additional guidance will be needed on interoperability of other approaches including portfolio level approaches, labelling and rating. In the meantime, some FIs are implementing the Roadmap to align their portfolios with net-zero targets. GFANZ members have coordinated on a set of draft guidelines that will improve credibility and comparability of financial sector transition plans and are working on sectoral pathways and real-economy transition plans to support coordinated net-zero planning and engagement that will facilitate market development and alignment of investments with sustainability goals. GFANZ also has a dedicated workstream on portfolio management alignment to enhance portfolio alignment methodologies, shed light on commonalities between alignment methodologies, and promote adoption by addressing barriers to developing, implementing and using portfolio alignment metrics.

***Benchmarking and measuring.*** UNCTAD reported monitoring the evolution of the sustainable finance market to accurately measure its size, geographical exposure, and contribution to sustainable development outcomes. Other IOs continue to provide recommendations and guidelines to help countries in the assessment of the alignment of financial centres to the SDGs and the monitoring and review building block of their Integrated National Financing Framework (INFFs). The OECD has been surveying the investment strategies of institutional investors on an annual basis to understand alignment of private financing with SDGS and ESG. The OECD has also published a report on financial markets and climate transition, and on ESG rating and climate transition which highlighted emerging practices and growing market fragmentation, and offered recommendations to improve the comparability of metrics, and interoperability of approaches.[22]

[21] UN-DESA, IPSF (2021). Improving Compatibility of Approaches to Identify, Verify and Align Investments to Sustainability Goals. https://g20sfwg.org/wp-content/uploads/2021/09/G20-SFWG-DESA-and-IPSF-input-paper.pdf

[22] See OECD (2021), Financial Markets and Climate Transition: Opportunities, challenges and policy implications", OECD (2022), "ESG Ratings and Climate Transition: An assessment of the alignment of E pillar scores and metrics".

### 2. Focus Area 2: Consistent, comparable, and decision-useful information on sustainability risks, opportunities, and impacts

Nineteen IOs, networks, and initiatives have reported working towards the actions in Focus Area 2. Overall, IOs have been supporting efforts for consistent information standards to maximize positive impacts for the financial sector, improving corporate disclosure on sustainable development-related matters, addressing some information gaps on sustainability data.

***Consistency of information standards.*** The IFRS Foundation established the new International Sustainability Standards Board (ISSB) to develop a comprehensive global baseline of high-quality sustainability disclosure standards to meet investors' information needs. Various international organizations engaging with the ISSB in different capacities, worked jointly with the IFRS Foundation to inform different jurisdictions on the different technical aspects of the ISSB standard setting process and encouraged countries to participate actively in the consultations. UNEP FI is working actively across sectors to provide consistent standards for the financial sector to maximise positive impacts while others, such as GI-HUB and DESA, have been working, each separately, on developing a framework to leverage private sector participation and improve corporate disclosure on sustainable development-related matters. UNCTAD's Sustainable Stock Exchanges (SSE) programme is working actively with stock exchanges around the world to provide consistent guidance to listed companies on the reporting of sustainability information such as the Model Guidance on Climate Disclosure to guide issuers on TCFD implementation.

***Bridging information gaps on sustainable data*.** For instance, UNEP FI has developed an Impact Methodology, which provides a framework to assess the impacts of a bank's portfolios on sustainability factors. OECD carries out an annual large pension fund survey to understand institutional investment activity related to sustainable data. The UNCTAD SSE programme has begun benchmarking stock exchanges in G20 countries based on the sustainability performance of issuers on each exchange, examining factors such as climate

emissions and gender equality.[23] Other IOs such as the IMF, UNCTAD, NGFS and DESA, are drafting reports and/or creating metrics to reduce the data gaps and improve the data quality of the available resources including monitoring policies and regulatory frameworks related to sustainable finance. In April 2022, the IMF submitted to the Indonesian G20 Presidency a workplan for a possible new Data Gaps Initiative (DGI) focused on four topics: (1) Climate Change; (2) Household Distributional Information; (3) Fintech and Financial Inclusion; and (4) Access to Private and Administrative data and Data Sharing.

***Improving data quality, and usefulness.*** To participate in the improvement of data quality, the NGFS published a report on data gaps providing specific policy recommendations for improving the availability, quality, and comparability of climate-related data in July 2022 and is currently working on finalizing a directory of climate-related decision-useful metrics and data sources. Moreover, UNEP-FI and UNCTAD have been engaging with data providers to create comparable alignment metrics. While the UNEP-FI and OECD have been participating actively in the SME workstream of the EU platform on sustainable finance, IPSF and DESA have published and presented reports providing information about various jurisdictions' frameworks in this area and in particular for SMEs regarding their access to sustainable finance flows and their issues given the sustainable finance approaches, respectively, while encouraging ongoing or future work to better understand the challenges and benefits of sustainability reporting for SMEs and emerging market economies.

***Nature and biodiversity-related information.*** The UNEP-FI reported plans to present a tool to align portfolios with the post-2020 Global Biodiversity Framework during 2022. The SBFN reported working on knowledge exchanges efforts to gather their members' demands on nature and biodiversity-related support. UNCTAD reported is revising the core SDG

[23] UN SSE (2021) *Carbon Emissions in Public Markets: analysis of over 2,000 companies on 22 stock exchanges in G20 countries*, and UN SSE (2021) *Gender equality on corporate boards: analysis of 2,200 issuers on 22 stock exchanges in G20 countries*. https://sseinitiative.org/publications/

indicators (GCI[24]) to include new indicators on land use and biodiversity. Launched in June 2021, the Taskforce on Nature-related Financial Disclosures **(TNFD)** has set out to build upon the approach adopted by the TCFD and align with the emerging global baseline for sustainability standards currently under development by the International Sustainability Standards Board (ISSB). Nature and biodiversity-related information are also considered in draft European sustainability standards currently under consultation[25]. The Coalition of Finance Ministers for Climate Action (the Coalition)'s report on nature-related risk [26] also includes policy recommendation to better integrate nature and biodiversity-related information into ministry of finance's decision making.

### 3. Focus Area 3: Assessment and management of climate and other sustainability risks

The FSB has been coordinating the roadmap for addressing climate-related financial risks. In addition to an annual progress report presented to the G20 FMCBG in July 2022, it will submit three other reports to G20 FMCBG in 2022, on achieving consistent climate-related disclosures, on scenario analysis (co-developed with the NGFS) and on regulatory and supervisory approaches to addressing climate-related risks. In addition, eighteen different IOs, networks, and initiatives have reported working towards the actions proposed in the Focus Area 3.

IOs have been actively working aiming to perform assessment and management of climate and other sustainability risks using a set of diverse strategies. To support the improvement of banks' risk management and

[24] UNCTAD 2019. Guidance on core indicators for entity reporting on contribution towards implementation of the Sustainable Development Goals (GCI). Available at: https://unctad.org/en/PublicationsLibrary/diae2019d1_en.pdf

[25] https://www.efrag.org/Assets/Download?assetUrl=%2Fsites%2Fwebpublishing%2FSiteAssets%2FED_ESRS_E4.pdf

[26] https://www.financeministersforclimate.org/news/hp5-publishes-report-nature-related-risks-finance-ministries

supervisors' practices, the Basel Committee on Banking Supervision has developed principles for the effective management and supervision of climate-related financial risks. Some IOs have been working on performing studies of liability risk and others providing an assessment of the implications of climate change and the role of sustainable finance markets in supporting transition. Additionally, work on the transition finance framework has been performed, while providing information about macroeconomic, growth, employment, and stability implications of a climate Minsky shock to financial markets and the economy and showing the role that can be played by FIs and instruments to ameliorate the risk.

***Considering sustainability risks in financial risks assessment***. The IMF has started implementing a work plan to incorporate climate change considerations in Financial Sector Assessment Program risk analysis and plans to add climate scenarios for physical and transition risk that drive different paths for macro-financial variables as a next step[27]. The NGFS has published a third iteration of its climate scenarios. Moreover, while the UNEP-FI, the NGFS and OECD started assessing biodiversity/nature-related risks in the financial systems, the SIF provides assessment for the insurance protection gap and regulatory policy options. Other IOs such as the UNCTAD, SBFN, DESA and OECD[28] are working on reports or publications that provide further information regarding finance and technical advice, measurement frameworks, and climate-related risks assessments for governments, financial sector regulators, stock exchanges, and FIs. ILO upcoming guide for financial institutions will provide practical recommendations how to integrate Just Transition considerations in their operations, including the assessment of associated risks and opportunities. The Coalition has produced

[27] See the IMF Staff Climate Note: Approaches to Climate Risk Analysis in FSAPs (imf.org)

[28] The OECD is finalizing its report on Managing Climate Risks through RBC due diligence: a tool for institutional investors provides guidance on how investors can apply the due diligence framework recommended by the OECD Guidelines for Multinational Enterprises to identify and respond to climate risks to society and the environment, including in terms of climate risk governance, assessment, management, tracking, reporting and disclosure.

a note on climate-related risk29 to raise awareness and explore appropriate risk management approaches.

***Understanding the macroeconomic implications of climate risks and climate policies***. The G20 FWG has had an initial discussion on the macroeconomic implications of climate change and associated climate change mitigation policy options. Moreover, to provide a concrete follow-up on the Ministerial mandate of the 2021 October and 2022 February Communiqués, the FWG has been working to conduct a more systematic analysis of macroeconomic risks stemming from climate change and of the costs and benefits of different transitions, including by drawing on well-established methodologies. The Coalition recently published a recommendation report on nature-related risk[30], to better understand economic and financial risks of nature loss with the policy options to address them. Separately, the Coalition also released another report[31] that looked into implication of ministry of finance' climate policies, including on macroeconomic modelling, climate-informed fiscal risk assessment and green budgeting.

***Understanding sustainability risks implications.*** In this line, the ILO is contributing an input paper to the transition finance framework by highlighting the socio-economic impacts of the climate transition, while the IMF is assessing the broader macroeconomic impacts of various climate policies. The NGFS has promoted the implementation of climate stress tests and furthers its work with regard to the supervision of climate-related and environmental risks. UNEP FI and DESA are planning activities related to informing stakeholders about climate-risk considerations and how to incorporate them into their workplans.

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[29] https://www.financeministersforclimate.org/sites/cape/files/inline-files/Climate-Related%20Risks%20for%20Ministries%20of%20Finance%20-%20An%20Overview%20%28CFMCA%29_1.pdf

[30] https://www.financeministersforclimate.org/news/hp5-publishes-report-nature-related-risks-finance-ministries

[31] https://www.financeministersforclimate.org/sites/cape/files/inline-files/Driving%20Climate%20Action%20through%20Economic%20and%20Fiscal%20Policy%20and%20Practice.pdf

### 4. Focus Area 4: Role of IFIs, public finance & incentives

Seventeen IOs, networks, and initiatives have reported work or activities that focused on the actions of Focus Area 4. IOs have committed to several plans or Joint Actions on the sustainable finance front, and some of them have been working on developing a framework on how to best leverage private sector participation to scale up sustainable infrastructure investment while providing technical assistance in the region to develop financial products and services for climate mitigation and adaptation. Moreover, some of them have also been working with institutional investors to mobilize more capital for sustainable development[32] and some other efforts have been made to update organizational strategy to consider emerging issues including the COVID-19 pandemic, SDGs and transitions to low greenhouse gas emissions and climate-resilient future. **The forum on international policy levers for sustainable investment**, hosted by the G20 Indonesia Presidency, discussed a range of policy levers that can incentivize or create an enabling environment for sustainable finance and increase investment that support an orderly, just and affordable transition towards low-greenhouse gas emissions and a climate-resilient development [33]. Building on this technical initiative, the G20 FMCBGs had a fruitful exchange of national experiences on policies to address climate change and preserve financial stability and economic growth in the long-term[34]. The IMF is assessing the broader economic impacts of various climate policies, including both pricing and non-pricing policies in a joint IMF-OECD report on equivalence and comparability of pricing and non-pricing policies.

***Aligning institutions to sustainability goals.*** UNEP-FI and IsDB have implemented action plans to provide better guidelines regarding sustainable finance and climate change. In addition, the AIIB has committed to aligning

[32] The Asian Green Bond Fund (https://www.bis.org/press/p220225.htm) launched by BIS in 2022, is an initiative to channel central bank reserves to finance private sector and other investments in green projects in Asia.

[33] see the summary of the event in Annex

[34] See the press release of the High-Level Breakfast Discussion on Climate Mitigation, which was held in July 2022, in Bali, as a part of The Third Series of G20 FMCBG Meeting Activities.

its operations to the Paris objectives by July 2023 while the SBFN assists members from across emerging markets to advance national sustainable finance roadmaps and unlock investment opportunities. UNCTAD and GI-HUB are also working on research about the role of banks in supporting climate action in emerging countries and developing a voluntary and non-binding framework on private sector participation to scale up sustainable infrastructure investment respectively.

***Mobilizing private finance***. Specifically, the AIIB has created a Special Fund Window (SFW) to make its financing more affordable to its less developed members, while UNCTAD's Sustainable Institutional Investment (SII) programme has been working with institutional investors to mobilize more capital for sustainable development and ensure their investment strategies and portfolio holdings are aligned with the SDGs. The BIS launched the Asian Green Bond Fund that channel central bank reserves to green projects in the region in compliance with strict international green standards, providing alternatives of green financial instruments. The IMF published a note that discusses potential ways to mobilize domestic and foreign private sector capital in climate finance, as a complement to climate-related policies. The IMF is set to publish an analytical chapter of the Global Financial Stability Report that takes a more in-depth look at financial markets and instruments in scaling up of private climate finance in emerging market and developing economies. Meanwhile, the Coalition of Finance Ministers for Climate Actions has called for the need of private sustainable investment for green recovery[35] as well as mapped private financial sector's commitments and methods to align with the Paris Agreement goals and explores how finance ministries can support these commitments [36]

***Capacity building.*** In this context, the IMF is supporting countries integrating climate policies in their macro-frameworks through capacity development; the IsDB plans to promote sustainable, resilient, inclusive economic growth that is compatible with environmental and climate goals for inclusive human

[35] https://www.financeministersforclimate.org/news/coalition-publishes-2021-green-recovery-report-building-momentum-strong-recovery-and
[36] https://www.financeministersforclimate.org/sites/cape/files/inline-files/Financial%20Sector%20Paris%20Alignment%20%28CFMCA%29%20-%20Summary%20for%20Policymakers_0.pdf

development that is built upon a foundation of sustainable, resilient, and sustainable infrastructure. The NGFS has set up a Task force on "Capacity Building and Training" to identify good practices to facilitate the upskilling of central bankers and supervisors in the field of climate-related and environmental risks. The Coalition launched a report[37] that analyse various countries' sustainable finance roadmaps to better understand commonalities and differences and identify best practices, to facilitate country experience sharing.

### 5. Focus Area 5: Cross-cutting issues

Seventeen IOs, networks, and initiatives have actively been engaged with activities aiming to address the Actions in Focus Area 5. IOs have worked to identify barriers to achieving a coherent system of norms for impact management. Moreover, working groups have been established to explore how sustainable finance alignment approaches may integrate transition considerations and frameworks were developed on how to leverage private sector participation to scale up sustainable infrastructure.

***Stock-take of emerging digital solutions.*** In this regard, the Green Digital Finance Alliance's Green Fintech Classification Report[38] maps database of green fintech innovations and identifies ways to improve the enabling environment that foster accessibility of sustainability data. UNEP FI is working to address barriers to achieving a coherent system of norms and resources for impact management, while the AIIB has been actively investing in funds and projects that apply digital technology used to support sustainability goals. Furthermore, the GI-HUB is working on digitalization and automation, aiming to enable cost-efficient and better-quality infrastructure and to work with other relevant IOs, to develop high-level principles for a credible and consistent framework with better-quality infrastructure that is also resilient to future shocks. The BIS also launched, through its Innovation Hub Centre in Hong Kong, "Project Genesis", that explores tokenization of green bonds to enable investments in small denominations, combined with real-time

[37] https://www.financeministersforclimate.org/sites/cape/files/inline-files/Sustainable%20Finance%20Roadmaps%20Report%20-%20Nov%202021.pdf
[38] https://greendigitalfinancealliance.org/green-fintech-classification/

tracking of environmental outputs – as a way to encourage innovative approaches to green bond distribution and transparency.

***Financing a just climate transition.*** IPSF has established a working group to explore how sustainable finance alignment approaches may integrate transition considerations. The UNEP FI has worked on the practical applications of the EU Taxonomy for bank lending, assessing the possibilities EU Regulation provides for transition finance and synergies between impact analysis and target-setting. In addition to that, the UNCTAD has been promoting the uptake of sustainability by capital markets and the OECD has been drafting guidelines for eligibility and integrity during transition financing. In the meantime, some FIs are implementing the Roadmap to align their portfolio to net-zero targets by working on sectoral pathways and real-economy transition. The OECD has reviewed ESG and climate transition practices and is setting out high-level policy recommendations for market practices to strengthen ESG investing and the Climate Transition[39], as well as Guidance on Transition Finance, focusing on credible corporate climate transition plans. The ILO developed a report focusing on Finance for a Just Transition and the Role of Transition Finance and is producing a policy brief on financing a just transition.

***Aligning capacity building efforts***. ICMA and IsDB have developed training/development programs related to sustainable finance/development. Others, such as NGFS/BIS/SIF/IAIS and DESA have worked on platform content for training courses and better communication among central banks/prudential supervisors and private investors, respectively. SBFN and UNCTAD have been providing technical assistance and capacity building to work along with governments. OECD is developing a framework to assist comprehensive approach to capacity building for sustainable infrastructure, both from policy area and sector perspectives. The Coalition has also developed mappings40 of various capacity buildings that are required to further mainstream climate actions in ministry of finance.

[39] OECD (2022), Policy Guidance on Market Practices to Strengthen ESG Investing and Finance a Climate Transition, forthcoming.
[40] https://www.financeministersforclimate.org/news/hp2-publishes-report-mainstreaming-climate-action-ministries-finance

| Action | AIIB | BIS | Coalition | DESA | FSB | G24 | GFANZ | GI HUB | ICMA | ILO | IMF | IPSF | IsDB | ISSB/IFRS | NGFS | OECD | SBFN | SIF | TNFD | UNCTAD | UNDP | UNEP FI |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Focus Area 1: Market development and approaches to align investments to Sustainability Goals** | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | | | X | | | | | | | X | X | | | | X | X | X | | X | X | X |
| 2 | | | X | X | | | X | X | | | | X | | | X | X | X | | | X | X | X |
| 3 | | | X | X | | | | X | X | | | X | | | X | X | X | | | X | X | X |
| 4 | | | | X | | | | X | X | | | X | | | X | X | X | | | | X | X |
| 5 | | | X | X | | | | X | | | X | X | X | | | | X | | | X | X | X |
| **Focus Area 2: Consistent, comparable, and decision-useful information on sustainability risks, opportunities, and impacts** | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | X | X | X | | | X | | | X | X | | X | | X | | | | X | X | X |
| 7 | | X | | X | X | | | X | | | X | | | | X | X | | | | X | X | X |
| 8 | | | X | X | | | | X | | | X | | | | X | X | | | | X | X | X |
| 9 | | | X | X | | | | X | | | | X | | | | X | X | | | X | X | X |
| 10 | X | | X | | | | | | | | | | | | | X | X | X | X | X | X | X |
| **Focus Area 3: Assessment and management of climate and other sustainability risks** | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | | X | X | X | X | | | | | X | | X | | X | X | X | X | | X | X | X |
| 12 | | X | X | X | X | | | | | X | X | | | | X | X | X | X | | | X | X |
| 13 | | | | X | | X | | | | X | X | | | | X | | | | | X | X | X |
| **Focus Area 4: Role of IFIs, public finance & incentives** | | | | | | | | | | | | | | | | | | | | | | |
| 14 | X | X | X | X | | | | X | | | | | X | | | | X | | | X | X | X |
| 15 | X | | X | X | | | | X | | X | | | X | | | X | X | | | X | X | X |
| 16 | | | X | X | | | | X | | | X | | X | | X | X | | | | | X | X |
| **Focus Area 5: Cross-cutting issues** | | | | | | | | | | | | | | | | | | | | | | |
| 17 | X | | | | | | | X | | | | | | | | X | | | | | x | X |
| 18 | | X | | | | | | X | | | | X | | | | | | | | X | | X |
| 19 | | | X | X | | | | | X | | | | X | | X | | X | | | X | X | |

# Annex for Chapter I

In an effort to demonstrate the working elements of the transition finance framework in different contexts, and to enhance cross-jurisdictions understanding of different approaches to scaling up finance for the climate transition, G20 SFWG members heard case studies from jurisdictions and FIs working on climate transition.

### Box 1.1 Transition Finance in Japan

In March 2020, a study group on environmental innovation finance within the Ministry of Economy, Trade, and Industry (METI) published a concept paper that illustrates principles on Transition Finance. To complement these principles, the METI, the Ministry of Environment, and the Financial Services Agency published "Basic Guidelines on Climate Transition Finance" in May 2021. The guidelines were developed in accordance with ICMA's Handbook. The guidelines are aimed at serving as a reference for market participants on the issuance and use of transition finance. As per the Guidelines, issuers and fundraisers should articulate a transition pathway and assign targets aligned with the Paris Agreement. As a reference for companies, the METI and other relevant agencies are developing sector-specific decarbonization roadmaps where effectiveness and availability of transition and innovative technologies contributing to net-zero are described in timeline by 2050. To date, the roadmaps for iron & steel, chemistry, electricity, oil, gas, paper & pulp, cement, shipping and aviation sectors have been developed. A roadmap for the automobile sector is planned to be developed in FY2022. To incentivize companies' business shift supported by transition finance, Japan has already introduced a subsidy scheme for third party verification.

(Source: Japan)

## Box 1.2 Transitional activities in the EU Taxonomy

The EU Taxonomy for Sustainable activities (EU Regulation (EU) 2020/852) is a classification system with a list of environmentally sustainable economic activities. The EU taxonomy provides companies, investors and policymakers with appropriate definitions for which economic activities can be considered environmentally sustainable. In this way, it aims to create security for investors, protect from greenwashing, help companies to become more climate-friendly, mitigate market fragmentation and help shift investments where they are most needed. Beyond its role as a transparency tool, larger and/or listed companies are legally required to report on their environmentally sustainable activities. The use of the classification system beyond reporting is voluntary.

The Regulation establishes 6 environmental objectives for the EU Taxonomy and sets out 4 overarching conditions that an economic activity must meet in order to qualify as environmentally sustainable. Under the Regulation, delegated acts provide the list of environmentally sustainable activities by defining technical screening criteria for each environmental objective.

Specifically, for the environmental objective of "climate change mitigation", the EU Taxonomy includes both low-carbon activities and transitional activities. In the EU Taxonomy, a "transitional activity" is an economic activity for which there is no technologically and economically feasible low-carbon alternative but supports the transition to a climate-neutral economy consistent with a pathway to limit the temperature increase to 1.5 ℃ above pre-industrial levels, including by phasing out GHG emissions, in particular emissions from solid fossil fuels, and where that activity:

(a) has emission levels that correspond to the best performance in the sector or industry;
(b) does not hamper the development and deployment of low-carbon alternatives; and
(c) does not lead to a lock-in of carbon-intensive assets, considering the economic lifetime of those assets.

Pursuant to the current delegated acts, there are 28 transitional activities in 5 sectors in the EU Taxonomy, including manufacturing, energy, transport, construction and real estate activities, information and communication. For

these activities, technical screening criteria are set for carbon intensity, energy efficiency and/or transition pathways.

For example, "renovation of existing buildings" is a transitional activity if meeting the following Technical Screening Criteria:

- **Substantial contribution to climate change mitigation**: the building renovation complies with the applicable requirements for major renovations; alternatively, it leads to a reduction of primary energy demand (PED) of at least 30%;
- **Do No Significant Harm (DNSH)**: the activity should not do any significant harm to any of the other 5 objectives of the EU taxonomy;

Apart from the Technical Screening Criteria, a transitional activity should also comply with minimum social safeguards, and information disclosure requirements for both financial and non-financial undertakings. For example, a financial product should disclose: 1) the environmental objective(s) to which the investment underlying the financial product contributes; 2) a description of how and to what extent the investments underlying the financial product are in economic activities that qualify as transitional activities in the EU Taxonomy.

In March 2022, the EU Platform on Sustainable Finance released a Report on environmental transition taxonomy. The Platform report provides input on this topic, without prejudging any decision by the Commission on the matter.

(Source: European Commission)

### Box 1.3 China's Huzhou City Transition Finance Catalog

As one of China's green finance pilot zones, Huzhou has introduced policies and practices in green and transition finance. In January 2022, the Huzhou City Transition Finance Catalog (first edition) ("the Catalog") was issued as the first municipal-level transition finance taxonomy in China.

The Catalog defines transition finance as "financial services that use a variety of financial instruments to support the decarbonization of GHG-intensive

companies and adoption low-carbon technologies." With joint efforts of various local governmental agencies, the catalogue included 30 transitional activities (including technical pathways) in nine sectors and sets the low-carbon transition performance targets for these activities. These nine sectors are power, ferrous metal, non-ferrous metal, nonmetal mineral products, chemical, fiber, textile, paper, and agriculture.

For each sector in the Catalog, several technical transition pathways are specified. For example, several technical pathways provided for the agriculture sector include: GHG emissions reduction via installing solar photovoltaic panels on top of agricultural greenhouses; carbon sinks through integrated fisheries; carbon sequestration through crop straw returned to farmland; and GHG emission reduction through livestock and poultry manure management. For each transition activity included, the Catalog sets a performance benchmark (average industrial performance) and a performance target, which can be measured in improvement in energy efficiency of the activity (used in first edition of the Catalog) and/or reduction in GHG intensity (in planned revision of the Catalog).

In addition to publishing the Catalog, Huzhou has also initiated the first batch of transition projects based on the Catalog and offered incentives such as interest subsidies and guarantees to these projects.

(Source: Huzhou Municipal Government)

### Box 1.4 Cooperation for Sustainable Finance in Brazil

At the policy level, the Ministry of Economy (ME) introduced ESG criteria into its public debt management and into the criteria for granting sovereign guarantees for international loans. The ME also issued a simplified and accelerated approval process for the issuance of green bonds for infrastructure investments (Decree no. 10.387/2020), after a consultation process that also involved Brazil's Financial Innovation Lab (Lab).

The Lab is a multi-stakeholder platform that brings together over 1,000 sustainable finance experts from the public sector, the financial and

economic sectors, academia and civil society to promote sustainable finance through knowledge gathering and sharing, exchange, piloting of innovative instruments, and policy dialogue. It functions through highly active working groups and is steered by Brazil's Securities and Exchange Commission (CVM), the Brazilian Association of Development Banks (ABDE), the Inter-American Development Bank (IDB) and Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) through the FiBraS project. Until May 2022, the Lab has published 44 reports, conducted over 40 webinars, and engaged in twelve regulatory initiatives, among them the review of CVM Resolution no. 59/2021 which enhances social-environmental disclosure of publicly traded companies. The Lab is also a member of the International Network of Financial Centres for Sustainability (FC4S).

Since 2018, Brazil has been collaborating with partner countries to advance sustainable finance in Brazil through the engagement of both the public and private sector. The project Finanças Brasileiras Sustentáveis (FiBraS), an example of this collaborative approach, is funded by the German Federal Ministry for Economic Cooperation and Development (BMZ) and implemented by the (GIZ - the German development agency) in partnership with the Ministry of Economy (ME) and the Central Bank of Brazil (BCB). The project has the objective to mobilize investments for green and sustainable economic development towards the SDGs and the Paris Agreement, and to increase resilience against climate-related, environmental and social risks.[41] The project supports several sustainable finance initiatives at the policy, regulatory and market level through means like technical assistance, capacity building, policy dialogue and stakeholder engagement.

(Source: Ministry of Economy of Brazil, GIZ)

[41] Website: https://www.gov.br/produtividade-e-comercio-exterior/pt-br/assuntos/assuntos-economicos-internacionais/cooperacao-internacional/projeto-fibras-2013-financas-brasileiras-sustentaveis

### Box 1.5 Disclosure of Snam's Transition Activities

**The Bank of China** (BOC) issued its first **transition bond** in the offshore market in January 2021, raising a total amount of around RMB 6 billion. As of 31 December 2021, the proceeds have been allocated to the BOC Transition Portfolio, which was split into two sectors, i.e., 92% for the public utility industry and 8% for the cement industry. The expected annual emission reductions by projects in these sectors are 418,915 tons and 3,531 tons respectively. The proceeds were used to support eligible projects in both China and the EU for acquisition, research and development, manufacturing, construction, equipment operation and/or maintenance, procurement, and installation of equipment and related facilities.

Based on the principles of "Avoidance of Carbon Lock-in" and "Do No Significant Harm" and the list of "Explicitly Excluded Projects", the BOC set the following thresholds for project eligibility:

- Projects in the public utility industry
  - Below 72.8 tons $CO_2$/TJ of natural gas in China and below 100 grams of $CO_2$e/kWh of carbon emissions in EU
- Projects in the cement industry
  - Clinker-to-cement ratio to be below the national average of 0.64 in China
  - Energy consumption of 105 kg standard coal/ton (equivalent to 3.07 GJ/ton) or lower in China
  - Carbon emissions to be below 0.766 tons of $CO_2$e/ton in the EU

In April 2021, the North America-based BMO Financial Group financed a deal with Gibson Energy, a Canadian energy company, by amending an existing credit facility of $750 million Canadian dollars to a 5-Year **Sustainability-Linked Revolving Credit Facility**. This facility had a margin adjustment incentive mechanism tied to Gibson's commitment to reduce carbon emissions and increase the representation of women, as well as racial and ethnic minority representation in its workforce and on its board. In this transaction, a part of Gibson's borrowing costs will depend on whether it achieves pre-determined sustainability targets.

This facility included an environmental commitment to reduce its Scope 1 and Scope 2 GHG emissions intensity by 15% by 2025, a social requirement to increase the representation of women in its workforce to 40% – 42% and racial and ethnic minority representation in its workforce to 21% – 23% by 2025, and a Governance component, to increase the representation of women on the Board to at least 40%, with at least one member of the Board identified as a racial or ethnic minority and/or Indigenous minority by 2025.
.

(Source: Snam)

### Box 1.6 Sustainability-Linked Bonds[42]

Sustainability-linked bonds (SLBs) are debt instruments aimed at facilitating the transition to a net zero economy. They do so by lowering the cost of capital if issuers meet, at an entity-wide level, pre-defined sustainability performance targets (SPTs) within a given date. In turn, SPTs are based on metrics known as key performance indicators (KPIs). Funds raised with SLBs can be used for general financing purposes, rather than being tied to specific projects. If the performance targets are not met, the issuer is subject to a financial penalty. This incentive mechanism distinguishes SLBs from conventional green bonds, which instead finance contractually agreed activities (see Table 1 for more details). The penalty typically consists of additional payments to bondholders in the form of either a step-up coupon, a redemption premium, or an offset mechanism. Systematic external verification of KPIs versus the targets is integrated in the bond documentation.

[42] This box draws upon Network for Greening the Financial System (NGFS) (2022): "Enhancing market transparency in green and transition finance", section 2.4, pp. 37-41, as well as "Sovereigns and sustainable bonds: challenges and new options" BIS Quarterly Review, Sept. 2022.

| | Sustainability-linked bond | Green bond |
|---|---|---|
| **Use of proceeds** | General financing purpose | Green projects |
| **Issuer type** | Potentially any entity with a commitment to an ambitious sustainability trajectory | Entities able to generate large-scale green projects |
| **Performance indicator** | Metrics-based KPIs at the issuer level and associated SPTs | Impact evaluation relying on metrics-based KPIs at the activity level |
| **Penalty for missing green targets**[43] | Reputational costs and financial penalty | Reputational costs |
| **Pre-issuance review** | Second-party opinions, notably on alignment with ICMA's sustainability-linked bonds principles | - Second-party opinions, notably on alignment with ICMA's green bonds principles<br>- Certifications (Climate Bonds Standard) |
| **Post-issuance review** | Systematic external verification of KPIs vs. SPTs integrated in the bond documentation | More variability regarding the availability and quality of impact reporting |

Source: NFGS

Growth of the SLB market picked up markedly in 2021, including issuance in both advanced economies and emerging market economies. It has been averaging between $25 and $35 billion per quarter since Q2 2021, compared to mostly values well below $10 billion quarters before that (BIS 2022). Europe has seen the largest issuance (NGFS).

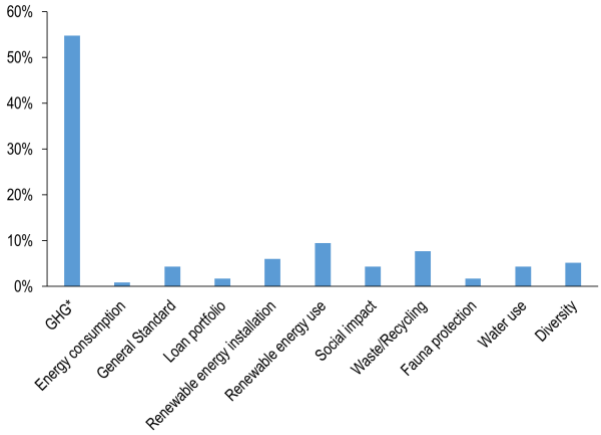
Even though the market for SLBs is still in its infancy, SLBs issued to date have adhered to a fairly standardized set of key performance indicator categories. While KPIs related to the reduction of greenhouse gas (GHG) emissions are

[43] This means missing the preset sustainability performance target in the case of a SLB, or misallocation of green proceeds in the case of a green bond.

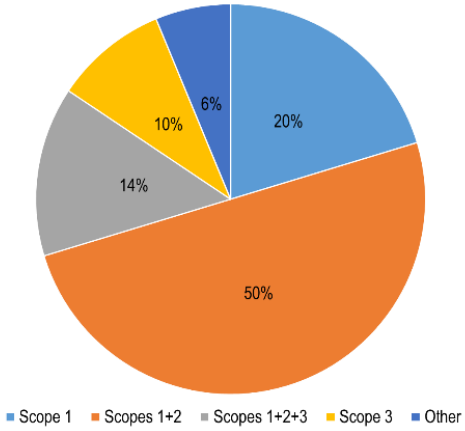
dominant, KPIs can also refer to energy consumption, renewable energy installation, waste/recycling, fauna protection, water use, diversity, among others (Figure 1).

**Figure1: SLBs feature various underlying KPIs, though GHG emissions dominate**

Categories of KPIs used in sustainability-linked bonds




Scope of emissions covered by GHG KPIs




As noted, KPIs and SPTs often reference sustainability efforts at the level of the issuing entity. This design presents several advantages. In particular, it opens the door to a larger range of issuers that, while willing to commit to mitigation efforts, have limited capacity to generate large-scale green projects due, for instance, to their sectoral specialisation. At the same time, it is crucial to clearly define which level of the issuing entity the sustainability measures and targets apply to.

While flexibility with respect to the underlying KPIs enhances market completeness, standardisation of SPTs and KPIs could help to scale up sustainable finance. The production of comparability-enhancing information can be a public good, by facilitating liquidity in an asset and reducing the burden on investors to understand the specifics. Within the dominant KPI category of GHG emissions, KPIs have been based on different emissions scopes with heterogeneous units of measurement. GHG KPIs can therefore

be measuring quantitatively and qualitatively different levels of emissions, resulting in potentially diverging GHG emissions dynamics for the issuer. Scope 3 emissions provide a more comprehensive picture of the total carbon footprint of an issuer. Transparency on the range of activities included in Scope 3 is also key, as there is a high degree of variability depending on the sector. The use of a common unit of measurement for GHG emissions is also crucial.

Another key aspect for the selection of KPIs from an investor viewpoint is comparability with industry peers. Ideally, KPIs should be consistently designed and disclosed by firms, including those that do not issue SLBs. This would allow investors to better assess how well the issuing firm is performing relative to its peers and how ambitious the SPT is. Using industry-specific activity metrics recommended by reporting standard setters such as ISSB and the European Financial Reporting Advisory Group (EFRAG) as the KPIs for SLBs could enhance comparability and market transparency.

Sovereign issuance of SLBs poses unique opportunities and challenges. Sovereign SLBs can provide strong signals towards achieving high-level climate-policy objectives such as the Paris Agreement. Conventional green bonds may not result in a material reduction of carbon emissions (See Ehlers et al (2020)[44]). In contrast, SLBs can be linked directly to reduced greenhouse gas emissions through the choice of appropriate KPIs. What is more, the target for greenhouse gas emission reduction can be aligned with the Paris Agreement by setting SPTs accordingly (e.g., a 50% reduction by 2030).

(Source: NGFS, Bank for International Settlements)

### Box 1.7 EU Just Transition Fund

While the EU has legally committed itself to achieving climate neutrality by 2050 through its European Climate Law, it faces significant socio-economic

[44] Ehlers, T, B Mojon and F Packer (2020): "Green bonds and carbon emissions: exploring the case for a rating system at the firm level", BIS Quarterly Review, September,
pp 31–57.

disruptions along this journey, especially in regions that rely on fossil fuel extraction and generation. To mitigate negative social and economic impacts from the climate transition, the EU launched Just Transition Mechanism (JTM), a framework that provides dedicated financial resources and technical assistance to EU member states, with three pillars of funding: Just Transition Fund (JTF) that provides primarily grants, InvestEU Just Transition Scheme that crowds in private investments, and a new Public Sector Loan Facility that leverages public financing[45].

The JTF supports economic diversification and reconversion of high-emitting regions and will contribute 100% of its funds to EU climate goals and the JTM, with a total budget of 19.32 billion euros between 2021-2027. Although all EU countries are eligible for the Fund, regions facing biggest the challenges on fossil fuel phase-out and transformation will be prioritized. The JTF will allocate funds in areas such as investments in SMEs, research and innovations, clean energy, up-and reskilling of workers, job-search assistance, transformation of existing carbon-intensive installation and others.

As the third pillar of the JTM, the Public Sector Loan Facility will combine €1.5 billion of grants, financed from the EU budget, with €10 billion in loans from the European Investment Bank (EIB), to mobilize between €25 and €30 billion of public investment that will meet the development needs of just transition territories. The facility could be extended in the future to finance partners other than the EIB.

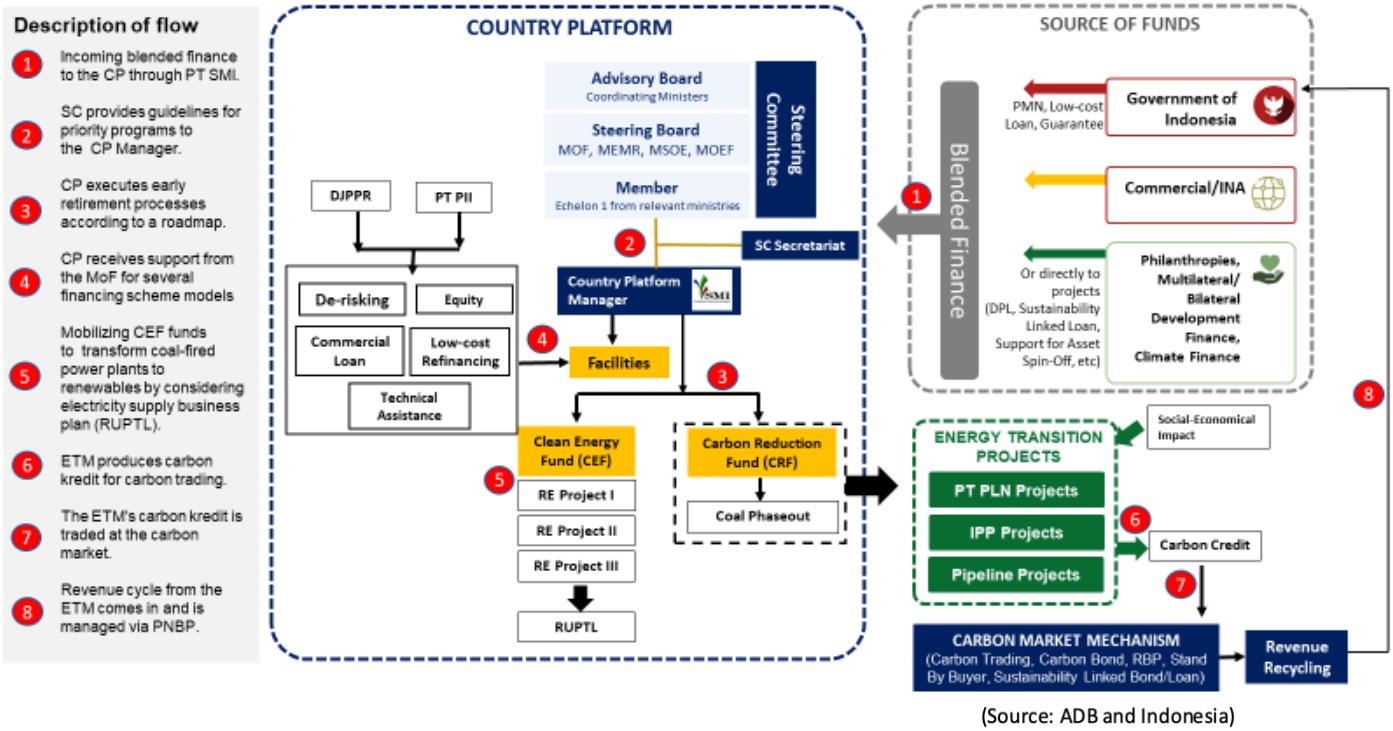
(Source: European Commission)

### Box 1.8 ADB's De-risking for climate transition: Energy Transition Mechanism

Both the Government of Indonesia and its national electricity company (PLN) has committed to achieve carbon neutral by 2060. While there is a significant potential for renewable energy utilization in the power sector in the country, coal is a dominating primary energy sources due to its affordability and

[45] European Commission

access, and the potential oversupply of energy remains a challenge. To address the issue, Indonesia is teaming up with Asian Development Bank (ADB), to introduce the Energy Transition Mechanism (ETM), which aims to accelerate climate actions, reduce energy costs by speeding up the retirement of legacy coal-fired electricity, mobilize investment in renewable generation and clean technology and to accelerate the climate transition.




(Source: ADB and Indonesia)

The ETM embodied the five (5) pillars of the SFWG's transition finance framework. The ETM will incentivize early retirement of coal-fired power plants (CFPPs), while investing into green energy facilities / renewable energy plants. A country platform was established based on the Finance Minister Decree assigning PT SMI, a state-owned enterprise, to mobilize financing and oversee the transition plans, its emissions reduction targets, as well as disclosure of corporate governance and use of proceeds. The platform will be

financed via a blended finance mechanism, using various financing modalities to improve its commercial viability, including debts instruments such as sustainability-linked loan, de-risking or guarantee products, as well as investments including in collaboration with the Indonesia Investment Authority (INA – the country's sovereign wealth fund). Furthermore, the government is preparing various regulations and policies, including through a Presidential Regulation and a Finance Minister Regulation[46], to create an enabling environment for ETM's implementation. Lastly, in alignment with the pillar 5, the ETM will assess the potential economic and social unintended consequences of the coal phasing out on the respective communities and provide mitigation plans.

### The ETM Models

To accelerate the climate transition in Asia and the Pacific, the Asia Development Bank (ADB) unites regional and international partners to pilot an Energy Transition Mechanism (ETM) that can be scaled up to developing regions and beyond. At the COP26 in 2021, the ADB, in partnership with the governments of Indonesia and the Philippines, launched the pilot ETM in Southeast Asia. The first seeding financing for the ETM was USD 25 million granted by Japan.

[46] Presidential Regulation on Renewable Electricity Pricing and Minister of Finance Regulation Supporting the Acceleration of Energy Transition in Electricity Sector to Achieve Sustainable Development Goals Through Companies (PT SMI) are expected to be completed in November 2022.

**ETM will explore various funding/transaction models to achieve earlier retirement**

| 01 Acquisition Model (SPV Level) | 02 Synthetic Model (SPV Level) | 03 Portfolio Model (Corporate Level) |
|---|---|---|
| ETM acquires share capital in CFPP | ETM invests senior/junior debt and/or other mezzanine capital to the CFPP | ETM provides funding to the corporate sponsor with CFPPs and greenfield clean energy projects |
| ETM to take role as owner and operator of the coal plant | Equity ownership and operational responsibility kept with the current asset owner | Sponsor guarantees greenfield clean energy projects will be built and coal plants retired ahead of schedule |
| ETM agrees an early termination date with the utility and operates the plant until that date and then closes it or repurposes | Investment conditional on early termination being contractually agreed with owner and utility and appropriate security being provided | Incentives (such a penalty interest) can be used to ensure that the transition occurs |
| Most suitable for **IPP plants with international bankable PPA** | Most suitable for **IPP plants with international bankable PPA** | Most suitable for **Utilities with a portfolio of plants** |

*While multiple transaction options exist, ETM will seek commitments from current project investors to not develop any new coal and host country commitment to energy transition as a pre-condition for any deal*

ADB

The primary focuses of ETM in Southeast Asia are ensuringlegacy coal retirement and just transition for the affected regions. Receiving grants and highly concessional funds from governments and philanthropies, this pilot ETM will provide both concessional finance and technical assistance. The ETM funding will be allocated through two channels. One is investing in private sector IPPs and state-owned utilities through direct ADB support or co-financing. The other is supporting legacy coal retirement and clean energy transactions through the country facility in collaboration with IFIs, and local and international investors. Within the current design of pilot ETM, the investment will cluster under two parts: the Carbon Reduction Fund (CRF) and the Clean Energy Fund (CEF), featuring early legacy coal retirement and investment in renewable assets respectively. Different transaction models will be explored to achieve earlier retirement.

As for technical assistance, the ETM aims for a broad range of topics, including just transition, skills and livelihood development, policy and regulatory support, carbon finance development and others. Commitment to Safeguards and a Just Transition are critical parts of ETM work. Proposed activities include (but not limited to) the conduct of regional feasibility studies, environmental and socio-economic scoping studies and just transition assessments.

(Source: the Government of Indonesia and ADB)

## Box 1.9 Sustainable finance and climate risks in Italy: the initiatives of the Ministry of Finance and of the Bank of Italy

In 2021, the Italian Ministry of Economy and Finance (MEF), with the support of a research team under the Structural Reform Support Programme of the European Commission, carried out the project "Sustainable finance and investments for the transition to a green economy".

The specific objectives of the project were to:

- support the development of the Sovereign Green Bond (SGB) Framework of the Italian government;
- provide an updated assessment of the additional investment required by 2050 to achieve climate neutrality;
- identify the best policies and measures that can be put in place to channel private finance towards sustainable investments and provide Italy with an improved policy framework to channel private (and public) capital to the achievement of climate neutrality by 2050;
- assess the economic and social impacts of the low-carbon transition in Italy and identify measures to compensate for or mitigate the negative effects identified

As a result, in 2021 Italy entered the market of sovereign bonds that finance sustainable development through the issuance of the new "2045 BTP Green", of which two tranches were issued for a total nominal value of EUR 13,500 million and for a net proceed of EUR 13,265.13 million. The first issue achieved a record number of bids for inaugural sovereign Green Bond issues in Europe with the participation of approximately 530 investors, more than half of whom were ESG investors; total demand amounted to more than EUR 80 billion.

The first Italian Sovereign Green Bond will finance Italy's Green Transition strategy already started in the past years. Through the issue of SGBs, Italy will finance public expenditures intended to contribute to the achievement of one or more of the following environmental objectives of the EU Sustainable Finance Taxonomy: Climate change mitigation, Climate change adaptation, Sustainable use and protection of water and marine resources Transition to a circular economy, Pollution prevention and control; Protection and restoration of biodiversity and ecosystems. Moreover, the use of proceeds

will help Italy support the 2030 Sustainable Development Goals of the United Nations.

In addition, a draft Sustainable Finance Action Plan (SFAP) was designed by the project team to address the barriers identified as preventing the flow of private finance towards sustainable activities. The recommended SFAP (forthcoming on the MEF website) is built around 15 high-level recommendations, split into two groups:

- Greening finance which aims to mainstream climate and environmental factors as a financial and strategic imperative across all players in the financial system, with a particular attention for current and future financial risks and opportunities; and,
- Financing the green which aims to accelerate the mobilisation of private finance for clean and resilient growth in line with Italian policy objectives. The measures addressed under this heading address, as a priority, the categories of investors within the Italian ecosystem that show the greatest willingness to invest in sustainable projects. They also aim to address projects and companies at different stage of their development, i.e., from innovation to market deployment, through the use of different financial instruments and investment products.

The Bank of Italy has published the first Report on sustainable investments and climate-related risks. This Report, which is prepared annually, is the Bank of Italy's response to the commitment - undertaken with the Responsible Investment Charter - to communicate the results achieved by the sustainable investment strategies adopted for portfolios not related to monetary policy, and to contribute to fostering the ESG culture in the financial system and among citizens.
The Report is inspired by the recommendations prepared by the TCFD and the Guide on climate-related disclosure for central banks, published by the NGFS. The Report has a section for each of the four areas identified by the TCFD: (a) governance; (b) strategy; (c) risk management; and (d) metrics and targets.

**Governance**. – The introduction of sustainability criteria into the investment decision-making process did not require any significant changes to be made to the Bank's governance for making its investment choices: the various Committees and Directorates were tasked with adding sustainability

considerations to the pre-existing financial criteria, based on traditional financial considerations. To ensure a consistent approach to sustainability across all the Bank's functions, a Climate Change and Sustainability Committee was set up, chaired by a member of the Governing Board and a Hub was created to support the Committee in coordinating and directing the Bank's activities relating to all ESG issues (portfolio investments, banking and financial supervision, economic research, and business operations).

**Strategy**. – Since 2019, the sustainable investment strategy has been extended in terms of both asset classes and targets, steadily paying greater attention to ESG factors and in particular to climate-related ones. Moreover, this choice aims to contribute to the achievement of the sustainability objectives identified both at European level, with the approval of Regulation (EU) 2021/1119, outlining the framework for achieving climate neutrality, and at national level, with the amendment of Articles 9 and 41 of the Constitution, which introduced a reference to the protection of the environment, biodiversity and ecosystems, also in the interest of future generations. At the end of 2021, the value of the portfolios where a sustainable investment policy could potentially be applied, was around €210 billion. For euro-area government bonds, which account for a large share of the total, the sustainability metrics are currently monitored but do not contribute to investment decisions, for various reasons; an exception is made for the green bonds of euro-area sovereign issuers and of supranational institutions, currently valued at €1.7 billion, whose share of the Bank's investments is foreseen to grow over time.

**Risk management**. – The Bank's policy for investing in private sector instruments (in particular equity) used to follow the market neutrality principle (the composition of the portfolio replicated that of the market, although some sectors were excluded). Since 2019, the Bank has gradually introduced climate-related and sustainability factors into the existing risk management models. At first, they were included after the asset portfolio allocation step, in the security selection phase, first for the equity portfolios, and then for the bond portfolios. Subsequently, sustainability considerations were also applied at the asset allocation step, but only for private sector issuers. In this way, the ESG factors are now taken into account during the whole investment process, from allocation to the selection of individual securities.

**Metrics and targets**. – The analysis of metrics and targets shows the progress made by the Bank in recent years. For the internally managed equity portfolio (worth €16 billion and accounting for over 90 per cent of the Bank's private sector investments), the carbon footprint declined by 60 per cent compared with 2018 – the year prior to the launch of the sustainable investment strategy – and is 37 per cent lower than the market benchmark. Weighted average carbon intensity (-24 per cent), use of electricity (-21 per cent), use of water (-14 per cent) and production of waste (-28 per cent) are also better than the benchmark. With regard to social metrics, the share of women employed is 7 percentage points higher than the benchmark and the injury rate is 9 per cent lower.

(Source: Italian Ministry of Economy and Finance, Bank of Italy)

## Box 1.10 Coordinated Efforts to Developing the Sustainable Finance Landscape in the UAE

The UAE was the first country in the Middle East and North Africa region to commit to net-zero through its *Net-Zero 2050 strategic initiative*. The initiative aims to reduce national carbon emissions to zero in alignment with the objectives of the Paris Climate Agreement. Maintaining a sustainable environment also formed an important pillar of the *UAE's Vision 2021*, which contained eleven KPIs targeting environmental sustainability. The UAE also has significant international presence in the field of sustainability, most notably for being the upcoming host of the COP28.

To achieve its commitments, the UAE established a national Sustainable Finance Working Group (SFWG) which was launched in 2019. The group is proactively advancing the sustainability agenda of the UAE by developing a national sustainable finance taxonomy. The group is also focused on setting sustainability governance and disclosure for the private sector. In 2021, the members of the UAE SFWG issued a public statement detailing their commitment to achieving the UAE's sustainability objectives and the UAE's net-zero commitment.

The UAE's direction set forth by the SFWG is guided by applicable national plans, particularly the *Sustainable Finance Framework 2021-2031*. The objective of the Framework is to mobilize capital towards sustainable investment opportunities and to facilitate the creation of innovative sustainable finance products such as green deposits, green mortgages, green bonds/sukuk, green loans and green insurance/takaful[47]. The Framework consists of three main pillars. The first pillar is designed to ensure that environmental sustainability is included as a key driver for the development of future national financial policies, regulations and guidelines. The second pillar targets the provision of sustainable financial products and developing incentives to promote attracting sustainable investments. The final pillar focuses on creating an environment to develop the required skills and competencies, foster research and development, and promote entrepreneurship in the field of sustainable finance.

(Source: UAE Ministry of Finance)

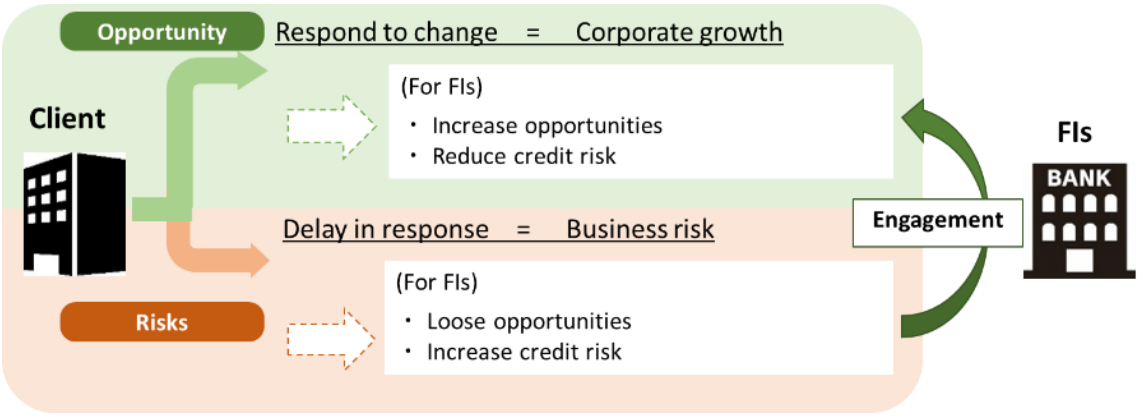
[47] UAE Sustainable Finance Framework 2021 - 2031

# Annex for Chapter II

## Box 2.1. Supervisory Guidance on Climate related Risk Management and Client Engagement in Japan

Supporting clients' transitions is important for FIs to make their own business foundation resilient and sustainable. In July 2022, the Financial Services Agency of Japan published **Supervisory Guidance on Climate-related Risk Management and Client Engagement**.

As a key message, the guidance emphasizes that, as companies face various challenges related to climate change, it is important for FIs to build a resilient business foundation and sustainable business models through engaging in their clients and supporting clients' responses to climate related opportunities and risks.




This guidance documents **viewpoints of supervisory dialogues** regarding FIs' climate related risk management and FIs' engagement with their clients to support the clients' responses to climate related opportunities and risks, including **possible approaches and case examples of client engagement**.

**Viewpoints of supervisory dialogues**

- Developing Strategies and Establishing Governance
  - Recognizing climate change response as a management issue, formulating a strategy for company-wide, and establishing an appropriate framework in line with this strategy.
- Identifying and Assessing Opportunities and Risks
  - Identifying and assessing opportunities and risks that climate change brings to clients and FIs' own business management in a forward-looking manner.
  - Utilizing scenario analysis to further develop FIs' own strategies.
- Supporting Clients' responses to Climate Change and Managing Climate-related Risks
  - Reducing FIs' climate-related risks over the medium to long term through proactively supporting the climate change response including transitions of clients.
  - Assessing and responding to how climate-related risks will affect each risk category over the medium to long term, while taking into account their own business characteristics.
- Sharing Information with Stakeholder
  - Providing stakeholders with useful and accurate information on FIs' strategies, policies to support clients' climate change responses, and climate-related risk management.

**Approaches and case examples of client engagement**

FIs are encouraged to accumulate their knowledge of climate change and understand the effect on clients of the evolution in technologies, industries, and natural environments caused by climate change. FIs are also encouraged to provide support to clients, such as providing consulting and solution-delivery services, supplying funding for growth, and providing area-wide support and improving cooperation among stakeholders, while taking into account the status and needs of each client.

(Source: Financial Services Agency of Japan)

# Annex for Chapter III

**Table 3.1 Selected country experiences on policy incentives**

| Incentives | Cases |
|---|---|
| Carbon pricing and emission trading mechanisms | • EU Emissions Trading System (ETS), starting from 2005<br>• US GHG emission cap-and-trade regimes at state level including the nine states along the east coast and California, starting from 2009<br>• Korea Emission Trading Scheme (K-ETS), starting from January 2015<br>• UK Emissions Trading Scheme (UK ETS), starting from January 2021<br>• China Emissions Trading Scheme at national level (starting from July 16, 2021) and local levels in seven cities (starting from June 18, 2013 in Shenzhen) |
| Central Bank Actions | • China central bank, PBOC, introduced the carbon reduction supporting facility in November 2021 to support three key green sectors, including renewable energy, co-benefits of carbon reduction and environmental protection, and CCUS<br>• European Central Bank accepted bonds with coupons linked to sustainability performance targets as eligible as central bank collateral. ECB announced its aim to gradually decarbonise its corporate bond holdings, on a path aligned with the goals of the Paris Agreement. To that end, the Eurosystem will tilt corporate bond holdings towards issuers with better climate performance, measured with reference to lower greenhouse gas emissions, more ambitious carbon reduction targets and better climate-related disclosures and published a guide on Supervisory expectations related to climate and environmental risks management and disclosure.<br>• Hungarian Central Bank, Magyar Nemzeti Bank, introduced the Green Mortgage Bond Purchase |

| | |
|---|---|
| | Program[48] in 2021 as one of the first asset purchase programs in the world with a focus on sustainability[49].<br>• As part of its Strategy on Climate Change[50], Bank of Japan introduced the Funds Supplying Operations to Support Financing for Climate Change Responses in 2021[51]. As of July 2022, a total amount of JPY 3,643.6 billion was disbursed under the operations. The operations will be offered biannually in principle, until March 31, 2031.<br>• Bank Indonesia implemented more relaxed Loan to Value (LTV) ratio for loans to purchase property and vehicle that meets certain green standards<br>• Bank Indonesia introduced Green RPIM that allows Bank to fulfil the Macroprudential Inclusive Financing Ratio (RPIM) requirement by purchasing sustainable/green bonds<br>• Bank Indonesia allocate forex reserve on BISIP G3 (green bonds pooling fund<br>• Banco Central do Brasil developed a regulatory framework on rural credit considering compliance with environmental standards and created a new section on Social, Environmental and Climate Impediments, in the basic conditions in the Rural Credit Manual. |

[48] https://www.mnb.hu/en/monetary-policy/monetary-policy-instruments/asset-purchase-programs/green-mortgage-bond-purchase-programme

[49] sustainability-and-central-bank-policy-green-aspects-of-the-magyar-nemzeti-bank-s-monetary-policy-toolkit.pdf (mnb.hu)

[50] https://www.boj.or.jp/en/announcements/press/koen_2021/data/ko210727a.pdf

[51] https://www.boj.or.jp/en/mopo/measures/mkt_ope/ope_x/index.htm/

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|---|---|
| Other policy instruments for climate transition | • China Ministry of Finance and Ministry of Environmental Protection jointly launched a government green procurement system in 2006, [52,53] with clearly guidance on the scope, working procedures and specific management methods for green procurement.<br>• The Government of Indonesia started to exercise green budgeting through climate budget tagging system, since 2016 until now. The list of green projects is then utilised as the potential underlying assets of green Sukuk, which has been issued continuously since 2017. The government is currently developing an SDG framework that could include transition projects<br>• The Government of Indonesia launched the SDG Indonesia One (SIO) platform in 2018, as a financing channel for infrastructure projects with the SDGs impacts. The SIO platform utilises blended finance mechanism and has partnered with philanthropic entities, international organisation (IOs), development banks and commercial banks.<br>• The Government of Japan developed a Green Innovation Fund at the level of 2 trillion yen in 2021 toward the goal of achieving carbon neutrality by 2050.[54]<br>• Singapore's Green and Sustainability-Linked Loan Grant Scheme (GSLS) covers expenses incurred by corporates to engage independent sustainability assessment and advisory service providers to develop green and sustainability frameworks and targets, obtain external reviews (including a second party opinion, verification, certification or rating), and report |

[52] https://www.mee.gov.cn/gkml/sthjbgw/qt/200910/t20091023_180041.htm
[53] http://www.tanpaifang.com/tanguwen/2020/0709/72319_21.html
[54] https://www.meti.go.jp/english/press/2021/0312_002.html

| | |
|---|---|
| | on the sustainability impact of the loan, up to SGD 100,000 of these expenses per loan.[55]<br>• The Australian Government introduced the AUD 300 million Advancing Hydrogen Fund in 2020 to support hydrogen-powered projects[56].<br>• The Government of Canada launched the Green Homes Grant in May 2021 to help Canadians upgrade their homes to save energy, combat climate change and create good jobs.[57]<br>• South Africa introduced the National Green Fund in 2011 to provide catalytic finance for investment in green initiatives that will support its transition towards a green economy[58]. |
| Regulatory measures | • India introduced additional floorspace allowance for green buildings.<br>• UK introduced the Ten Point Plan with an aim to lay the foundation for a Green Industrial Revolution and reduce UK emissions by 180 million tonnes between 2023 and 2032[59].<br>• Within the German Sustainable Finance Strategy, to improve financing of the transition by governmental agencies. The idea behind the strategy is not to create new agencies, structures or programs but to further incorporate sustainability aspects into existing schemes such as the internationally well-known KfW Bankengruppe and Export Guarantees ("Euler Hermes"). See Box 3.1. |

[55] https://www.mas.gov.sg/news/media-releases/2020/mas-launches-worlds-first-grant-scheme-to-support-green-and-sustainability-linked-loans
[56] https://www.energy.gov.au/news-media/news/government-announces-300m-advancing-hydrogen-fund
[57] https://www.canada.ca/en/natural-resources-canada/news/2022/01/canada-greener-homes-grant-winter-2022-update.html
[58] https://www.gov.za/about-government/government-programmes/green-fund?msclkid=30de17a8cea611eca98a141db4777a43
[59] https://www.gov.uk/government/publications/the-ten-point-plan-for-a-green-industrial-revolution/title

### Box 3.1 Financing Transformation (German Sustainable Finance Strategy)

The German Sustainable Finance Strategy (of May 2021) comprises a comprehensive package of a total of 26 measures within financial market policies. The steps are designed to mobilise sustainable investments and hence to protect our natural resources, mitigate climate risks and strengthen financial market stability.

https://www.bundesfinanzministerium.de/Content/EN/Standardartikel/Press_Room/Publications/Brochures/sustainable-finance-strategy.pdf?__blob=publicationFile&v=8

**The goal of the measures 14 to 17 is to improve financing of the transition** by governmental agencies. The idea behind the strategy is not to create new agencies, structures or programs but to further incorporate sustainability aspects into existing schemes such as the internationally well-known KfW Bankengruppe and Export Guarantees ("Euler Hermes").

**Measure 14: Continuing the development of KfW into a transformation bank**

The German government is supporting KfW in the implementation of its sustainable finance strategy. As part of this effort, KfW is developing into a transformative development bank for a sustainable and carbon-neutral future.

**4 Pillars of the KfW sustainable finance strategy (tranSForm):**


**Measure 15: Taking account of sustainability in the German Future Fund**

The German Future Funds has been set up as an initiative of the German government with the objective to strengthen and promote the European Venture Capital ecosystem. It targets the lack of growth financing opportunities in Germany provided by European investor and the Federal Government has committed more than 10bn Euros, provided by several state-owned investors under the coordination of KfW Capital. The funds will flow into different modules, each of them contributing towards closing this gap and also targeting future technologies.

One aspect of the initiative is the consideration of ESG criteria as a condition for deploying the funds. As there exist 7 (or more) modules with different characteristics (fund of funds, direct investment, debt financings), sustainability criteria are handled for each module separately.

**Measure 16: Taking sustainability explicitly into account in foreign trade financing (known as "Euler Hermes"**

The "Special Renewable Energies Initiative" was adopted in order to provide additional incentives for renewable energy projects. In addition, cover restrictions were implemented for certain projects: nuclear and

coal-fired power plants as well as oil production using routine venting and flaring. In addition, Germany is founding member of the international coalition "Export Finance for Future" ("E3F") in order to develop sustainable and climate friendly export finance policies.

For example, renewable energy and climate protection projects are particularly being promoted through long credit periods of up to 18 years, among other things. In 2021, cover for renewable energies fell to 708 million euros (2020: 1.1 billion euros). The large number of new requests for cover in 2022 reflects a temporary decline caused by the pandemic. In most cases, cover was provided for wind power projects (664 million euros), with export credit guarantees issued for the delivery of wind farms to Finland, Ireland, Türkiye, Vietnam and Lithuania. (see annual report; www.agaportal.de)

**Measure 17: Taking sustainability explicitly into account in the case of Federal Guarantees**

Before the federal government assumes a guarantee, the financial risks and economic eligibility must be examined. The corresponding review catalog was expanded in October 2021 to include sustainability as part of the review of economic eligibility for the large-scale guarantee program. However, the new sustainability criterion does not allow for any reductions in the assessment of the economic viability / risk of a project (sustainability does not replace viability).

(Source: Federal Ministry of Finance, KfW)

## Box 3.2 Towards a Global Shield against Climate Risks

The **InsuResilience Global Partnership (IGP)** for Climate and Disaster Risk Finance and Insurance Solutions is a global multi-stakeholder initiative, which aims to strengthen the resilience of developing countries and protect the lives and livelihoods of poor and vulnerable people against climate risks and disasters through Climate and Disaster Risk Finance and Insurance (CDRFI) solutions.

IGP grew out of the 2015 G7 InsuResilience Initiative and was founded in a joint effort by the G20 and the Vulnerable Twenty (V20) Group in 2017 at the UNFCCC COP23. The Partnership works within the international resilience and climate community to raise ambition and drive collaboration for scaling up CDRFI in developing countries. Currently, IGP has over 110 members from industrialised and developing countries, civil society, the private sector, development banks, multilateral organisations and academia. As per end of 2021, over 300 CDRFI projects were being implemented in more than 100 countries by 24 programmes under the Partnership's umbrella, leading to financial protection for over 150 million people. IGP drives both sovereign-level CDRFI instruments, which disburse liquidity to governments quickly and reliably when disasters occur to support disaster response, as well as meso- and micro-level instruments, which provide direct financial relief to households and businesses to recover from climate and disaster-related losses.

Under the German Presidency in 2022, the G7 have decided to work together on further developing existing approaches to CDRFI so as to create a Global Shield against Climate Risks. The aim of the Global Shield is to make financial protection more systematic, coherent and sustained at a global level, by gathering existing activities together under one roof, making them easier to access, and supporting better coordination and the mobilisation of additional funding. The Global Shield will build on existing programmes and platforms under the IGP. It will apply evidence-based, systematic analysis of countries' protection gaps to design, fund, and facilitate CDRFI instruments to address these gaps. The interventions will be built around national ownership and coherent coordination among stakeholders at the country level.

(Source: Federal Government and GIZ)

### Box 3.3 EBRD building capacity in Kazakhstan on green transition

In recent years, the European Bank of Reconstruction and Development (EBRD) has supported its countries of operations on green and sustainable finance development, including on the issuance of green bonds and building an enabling environment for greening capital markets.

**1) Green Bond Activities**

The EBRD is not only a leading green bond issuer and investor, it also has a dedicated technical assistance (TA) program to accelerate green bond issuance in member countries. Since 2017, EBRD has participated in 34 green bond issuances, covering Kazakhstan, Azerbaijan, Kyrgyzstan, Tajikistan, and Turkmenistan. Based on intensive engagement with FIs in the area, the TA Program provides tools to the issuers, including Gap Analysis Checklist, Energy Performance Criteria and External Review Toolkit.

**2) Facilitating an enabling environment for green capital markets**

In addition to the direct support on green financial products, the EBRD has helped countries in developing policy frameworks for sustainable finance. One example is long-term engagement with Kazakhstan, supporting the development of a roadmap for a local green financial system (2016-2017) and policy recommendations for green capital market incentives (2021-2022).

At the national level, a five-year Partnership Arrangement was signed between the EBRD and Kazakhstan in March 2021[60], to jointly design a framework to decarbonize the country's energy sector to achieve carbon neutrality by 2060. The EBRD also supported the development of innovative financial instruments to strengthen local sustainable financial market. In addition, the EBRD and Kazakhstan financial regulatory body also signed an

[60] Source: EBRD will help Kazakhstan achieve carbon neutrality by 2060. 31 March 2021. https://www.ebrd.com/news/2021/ebrd-will-help-kazakhstan-achieve-carbon-neutrality-by-2060.html

MOU to promote ESG and corporate climate governance,[61] where the EBRD would facilitate the development and implementation of financial guidelines and regulations to address ESG and climate-related risks.

(Source: EBRD, 2022)

### Box 3.4 Sustainable Banking and Finance Network (SBFN)

The International Finance Corporation (IFC) has helped regulators and FIs in developing countries to enhance their skills and knowledge through knowledge platforms, tools and specific programs. One of these platforms is the Sustainable Banking and Finance Network (SBFN). The SBFN, originally named as Sustainable Banking Network (SBN), aims to share knowledge and build the capacity for financial regulators, ministries, and industry associations from emerging markets. The SBFN offers its members demand-driven peer-to-peer knowledge sharing and technical support from IFC and World Bank programs. As a voluntary platform of financial sector regulatory bodies and industry associations, SBFN now has 72 member institutions from 62 developing and emerging countries, accounting for 86% of total banking assets in emerging markets.

The SBFN has issued Global Progress Report biennially, which provides comprehensive benchmarks of national sustainable finance initiatives across emerging markets. Moreover, 41 individual Country Progress Reports are also made available from March 2022 on the online Knowledge Base of SBFN.[62]

SBFN supports its members to achieve dual goals: improved risk management and governance of ESG by FIs and increased capital flows to activities with positive social and environmental impact. The above goals are achieved

[61] Source: EBRD and Kazakhstan's financial regulator promote ESG standards. 22nd March 2022. https://www.ebrd.com/news/2022/ebrd-and-kazakhstans-financial-regulator-promote-esg-standards-.html
[62] Source: Global and Country Progress Reports 2021&2022. https://www.sbfnetwork.org/publications/global-progress-report-2021/

through four member-led thematic working groups that focus on Measurement, Sustainable Finance Instruments, Taskforce for Low-income Member Countries, and Data & Disclosure. The Working Groups have actively built capacities among SBFN members through webinars and the conduct of thematic research. For example, the Low-Income Member Working Group undertook a diagnostic report on the unique challenges and opportunities low-income countries face in sustainable finance, along with detailed case studies, country analyses, and specific tools to inform decision-makings and implementing national sustainable finance roadmaps[63].

As of April 2022, SBFN's 47 member countries have collectively issued over 200 national sustainable finance frameworks including roadmaps, regulations, voluntary principles, taxonomies, and technical tools to guide and enable sustainable finance in emerging markets; nine SBFN countries will have established their national green finance taxonomies, including Bangladesh, China, Colombia, Indonesia, Kazakhstan, Mongolia, South Africa, and Sri Lanka; 24 SBFN countries have launched guidelines for green, social and/or sustainability-focused financial instruments, such as loans or bonds. SBFN/IFC are assisting member countries to develop such guidelines when they do not have any, and to expand them to social and other sustainability aspects when they have green-only guidelines.

(*Source: SBFN, 2022*)

[63] Source: SBFN TASK FORCE FOR LOW-INCOME MEMBER COUNTRIES
https://www.sbfnetwork.org/working-groups/task-force-for-low-income-member-countries/

### Box 3.5 Blended Financing of Upper Trishuli 1 (UT1) Hydropower in Nepal

Nepal is abundantly endowed with hydropower resources that go beyond domestic demand, but has not been sufficiently utilized due to lack of investments for large transformational projects. It currently imports both electricity and fossil fuels to provide reliable power for industry and commerce.

Through blended concessional finance support from Canada, IDA18 Private Sector Window, Finland, and Climate Investment Funds, UT-1 was able to secure the largest foreign direct investment in Nepal in 2019. Commercial financing was provided by IFC, ADB, MIGA (Multilateral Investment Guarantee Agency), AIIB (Asian Infrastructure Investment Bank), Proparco, FMO (Netherlands Development Finance Company and CDC (British International Investment, formerly CDC Group plc, Commonwealth Development Corporation, and Colonial Development Corporation).

This $650M project supports the development of a key greenfield 216 megawatt run-of-the-river hydropower project north of Kathmandu. When completed, UT-1 will provide improved and sustainable electricity access to millions and create jobs. It will also set new environmental and social benchmarks for Nepalese hydropower projects that follow.

(Source: Nepal Water and Energy Development Company)

### Box 3.6 Climate Resilience Solutions Fund (CRAFT)

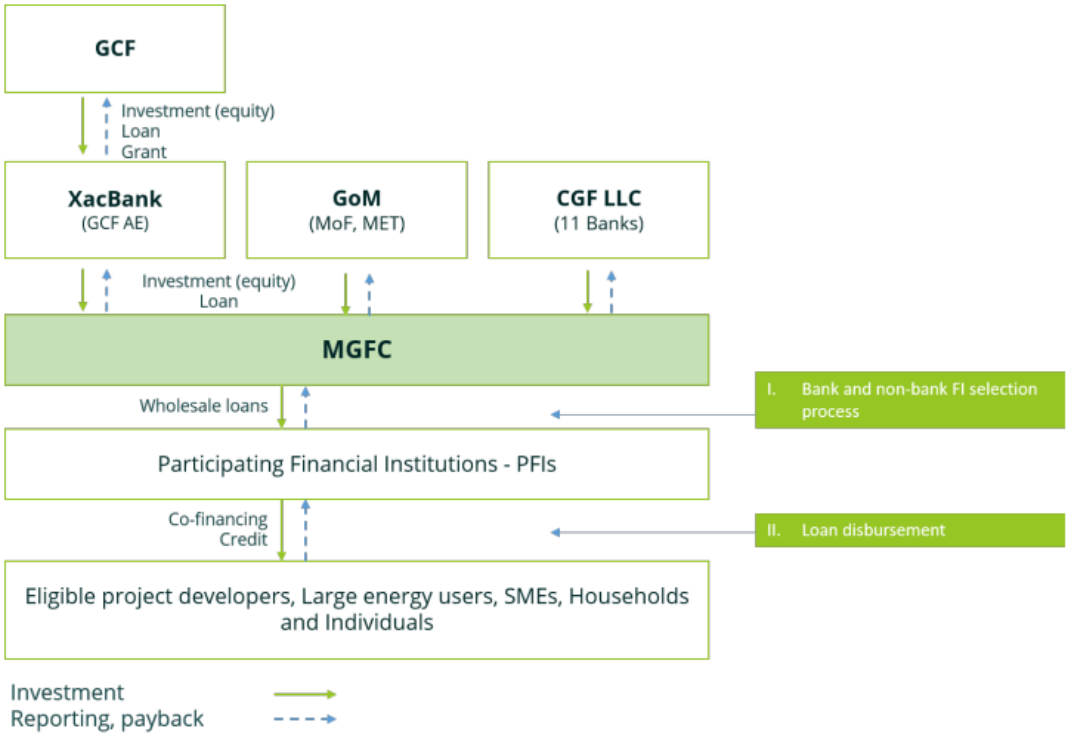
CRAFT, sponsored by European Investment Bank, is the first private sector investment vehicle focused entirely on climate adaptation and resilience in Latin America, Asia and Africa. It invests growth capital in companies providing tech-enabled services, engineering, data and solutions to enhance adaptation and resilience to climate change mainly for developing countries.

It is structured as a layered fund with first loss protection (in junior shares). The junior tranche is around 10% of total commitments, provided initially by the Government of Luxembourg as well as Nordic Development Fund. The total project cost is approximately USD250mn.

(*Source: EIB*)

## Box 3.7 Mongolia Green Finance Corporation

The Mongolia Green Finance Corporation (MGFC) is a joint public-private sector effort to create a national financing vehicle (NFV) to overcome the existing challenges and constraints of climate change mitigation in Mongolia. The MGFC specifically targets the mainstreaming of green, affordable and gender-inclusive financing for households and businesses to switch to low-carbon technologies; and to create an improved policy environment and build the capacity and awareness of stakeholders in support of this mission.



According to its funding proposal[64], the total financing volume of the MGFC project is estimated at USD 49.7 million, with USD 26.7 million requested from the Green Climate Fund in the forms of senior loans, subordinated loans, and equity combined. The government of Mongolia has also committed equity investment of at least USD 5 million, alongside a list of FIs that have expressed interested in such equity investment.

A component of the project is "wholesale lending to Participating Financial Institutions (PFIs)" - Commercially viable EE, low-carbon and affordable housing projects are identified, financed and implemented. Specifically, it includes the channeling of financing through PFIs on a wholesale basis and the direct channeling of financing to low-carbon and green projects at a later stage. Funding sources include senior and subordinated loans from the MGCF, plus senior loans from entities owned by the government of Mongolia.

(Source: Mongolia Sustainable Finance Association)

### Box 3.8 Cases for Sustainable Supply Chain Financing

The Islamic Development Bank (IsDB) and TRINE (a crowdfunding platform that facilitates sustainable investments to accelerate energy access in developing countries) partnered to support developing countries on solar home system (SHS) through crowdfunding financing mechanism. The IsDB

[64] FP153 - Mongolian Green Finance Corporation, Funding Proposal: https://www.greenclimate.fund/sites/default/files/document/funding-proposal-fp153.pdf
Such information could be subject to actual progress of implementation. However, no further implementation document after this one was shared on the GCF website in English yet.

invested in the various crowdfunding campaigns. It offered Murahaba[65] financing, also referred to as cost-plus financing.

Through this financing, the IsDB catalysed investment and under the financial structure, repayment terms are more patient than those normally agreed to for this type of loan. To reduce the stress of cash flow management on the borrower, the IsDB will receive repayment in one bullet payment, rather than amortization payments. The IsDB's loan tenor will also be longer compared to the typical loans that TRINE investors are offered. This serves as an additional incentive for investors to be paid first in case of default.

The funding from the IsDB as an institutional investor did have a catalytic effect. The campaign period was significantly shorter than the average time to fund.

Crowd investing in solar is relatively new and its risk profile is not well defined. To build investors' confidence in businesses whose volatility varies, companies such as Trine can leverage institutional investors and take the first loss. Thus, institutional investors such as IsDB absorb the potential impact of such volatility, which can catalyse investments by smaller investors.

Overall, the financing of energy companies by investors, both individual and institutional, has numerous benefits for both investors and end users of the off-grid solar solutions. First, the investments make a significant contribution to mitigating climate change by helping communities transition from fossil fuels to clean and renewable energy. The energy provided, which the investments facilitate, offers multiple development benefits to communities well beyond achieving SDG 7. Finally, the robust model of debt financing ensures that the investors will earn a return on their investments.

For more, see IsDB, TRINE, and UNDP Report (2021) on SDG Impact Assessment Crowd Investments for Solar Home System (Nigeria).

[65] Murabaha is an Islamic financing structure in which the seller (here, IsDB) and the buyer (the solar partner) agree to the cost and markup of the SHS.

# Annex: Discussing policy levers that incentivize financing and investment that support the transition

The Roadmap recognized the importance of public policy levers and their implications to send market signals that influence sustainable investment decisions and incentivize the participation of private capital in sustainable investments. Well-crafted public policies to mitigate greenhouse gas emissions are among the critical drivers in influencing customer, firm, and investor decisions.

The G20 Indonesia Presidency convened a forum on international policy levers for sustainable investment on 13 June 2022[66]. This G20 member-driven forum provided a space for members to share experiences and discuss a range of policy levers that can incentivize sustainable financing and investment that support just and affordable transitions towards a low-greenhouse gas emissions and climate-resilient economy, with due considerations for national circumstances and in line with the Paris Agreement and in accordance with nationally defined development priorities.

Some of the takeaways from the forum include:

- Many G20 members concurred on the importance of carbon pricing mechanisms as a cost-effective method to reduce emissions. However, members thought that assessing the cost-effectiveness of one pricing mechanism versus others pricing mechanism or non-pricing mechanism depends on several assumptions; hence, country- and/or sector-specific assessments are necessary before developing an appropriate policy mix.

[66] https://g20sfwg.org/wp-content/uploads/2022/07/Presidency-Summary-%E2%80%93-Forum-on-International-Policy-Levers-for-Sustainable-Investment-%E2%80%93-13-June-2022.pdf

- Several members expressed the need to better understand the international impacts of Carbon Border Adjustment Mechanisms (CBAM), especially on emerging markets, and how these proposals could influence climate policy choices].

- Some members mentioned the need to establish and expand carbon pricing mechanisms gradually, and to monitor their effectiveness relative to non-pricing mechanisms.

- The use of revenues from carbon taxes can be an essential aspect of policy design, and participants discussed the considerations behind their approaches to address socioeconomic consequences, green spending, or general revenue management. Some members mentioned of challenges of data availability and verification of emissions produced by companies.

- Members acknowledged that non-pricing tools could play a critical role to reduce emissions in countries where typical pricing instruments are difficult to implement due to domestic political or other considerations. Several members expressed the need to better understand the effectiveness of non-pricing tools compared to pricing tools. Members also raised issues related to addressing cross-ministerial coordination, which is one of the crucial challenges in implementing climate policies, to prevent negative economic and distributional impacts at international level stemming from uncoordinated climate change mitigation policies.

- The forum also highlighted the importance of technological innovation in supporting the climate transition. Some members further opined that such innovation is as essential to developing countries and smaller companies as to developed and more prominent ones. It was also noted that adequate carbon pricing is instrumental in fostering this technological innovation.

- Members reiterated the importance of addressing the socio-economic implications of policy levers in supporting transitions and shared the view that unless such implications are adequately addressed, implementation of policy levers is unlikely to gain momentum.

- Although the focus was on national policy levers, there is demand for improving understanding of international impacts, coordination and cooperation.

The forum identified a few challenges in allocating policy incentives to influence investment decisions:

- Information asymmetry. If not appropriately managed, this asymmetry will lead to green- and SDG-washing. The government incentives to promote sustainable investment can entice some project owners to pretend they are green.

- Cost-effectiveness of policy incentives. The cost-effectiveness of such incentives can be different in different countries. More analytical work is needed to develop the price equivalency of non-pricing policy instruments.

- Enhancing coordination between finance regulators and other government ministries or bodies. Although central banks must understand and evaluate the effects of climate policy choices, they do not have fiscal tools, sectoral regulatory functions, or power over environmental information disclosure requirements. To address this challenge, several G20 members as well as the SFWG co-chairs noted that a consortium of relevant ministries or agencies is required for effective implementation and selection of policy levers, including to embed incentives into green finance policies and regulations.