CLIMATE ACTION PATHWAY

# FINANCE

## Action Table

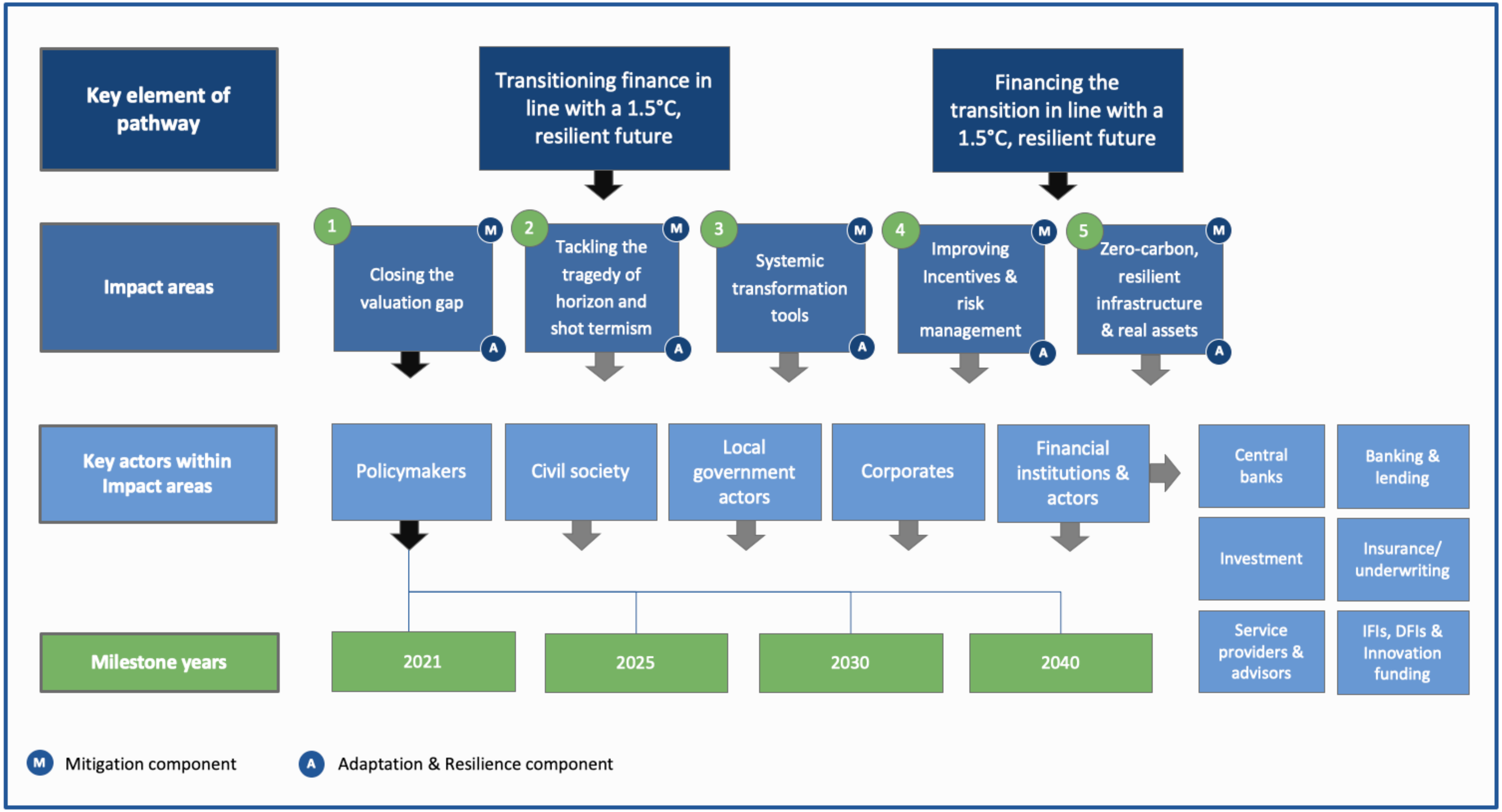
2021

## ACTION TABLE STRUCTURE AND APPROACH

This first iteration of the Action Table for Finance has been undertaken with the notion of it being a cross-cutting pathway. As such, it speaks more to the supply side of finance, with finance's relevance to each of the other thematic pathways more directly explored in their own commentary on 'Financial institutions'. In accommodating this, the Action Table for Finance has been structured to highlight both the changes required to the accepted concepts of the financial economy itself and the corollary: how these changes will inform and ensure that the financing of the real economy is conducted in a sustainable manner that is resilient and adaptable to the systemic changes required in both limiting planetary warming to 1.5 $^{o}$C and responding to the change in our environment that will result from this warming. This provision of finance should ensure that the transition is just, meaning in that any adverse effects from the transition or temperature rise are not disproportionately felt by poorer communities and emerging economies.

Thus, the two main themes herein, of 'Transitioning finance' and 'Financing the transition', permeate all impact areas. However, the order in which they are presented is deliberate and cascade from a focus on 'Transitioning' down to 'Financing'. We begin with the broader, legacy economic concepts that require re-aligning with climate goals ('Closing the valuation gap' and 'Tackling the tragedy of the horizon and short termism') and move to how this shift in thinking then facilitates a change in behaviour for financial actors on both the 'buy' and 'sell' sides ('Creating systemic transformation tools' and 'Improving incentives and risk management'). We then explore the practical implications of what this transformation will look like for these financial actors in financing business, households, infrastructure and real assets in the transition to net zero ('Zero carbon, resilient infrastructure and real assets'). This structure and approach has been informed by the original Climate Action Pathway thematic areas, as well as the 'Existing initiatives' and 'Further references' outlined at the end of each impact area below. Our goal is to aggregate best practices and widely accepted thought leadership in global climate action.

## OVERVIEW – SECTOR STRUCTURE



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## FINANCE SECTOR CHANGE LEVERS

Finance is an abstraction of human activity, yet it in turn influences that activity, primarily through the movement and velocity of money. The finance sector plays a key role in these capital flows, and as such, whilst there is no 'starting point', the behaviours of those who have control or discretion over greater amounts of capital are key change levers in forming feedback loops that can encourage economic activity in line with a net-zero, resilient world. Their decisions can also work to help us become more resilient to the shocks our economies and related infrastructure will face as we adapt to a warming planet, which has resulted from negative feedback loops from unaccounted-for environmental damage caused by human activity and the financing of it up until this point in time.

To date, the private sector has shown significant ambition in changing its behaviour, despite having the regulatory space to operate otherwise. In turn, finance has responded, with trillions flowing into environmental, social and governance (ESG) themed funds and indices, the financing of renewable energy (particularly wind and solar) becoming mainstream, and major banks and asset owners committing their own trillions to further sustainable and green financing by 2030. This commitment to 'financing green' is encouraging and, as the existing Climate Action Pathways have indicated, necessary and needed. With all that said, the funding of climate solutions and investment to support transition needs to dramatically increase to ensure planetary warming is limited to 1.5 $^{o}$C and be resilient to climate impacts.

Whilst this response is positive, there are structural and legacy frameworks throughout the financial and real economy that, left to operate as they are, will hamper and confuse this progress via the existing negative feedback loops. There are key elements to economic theory, the practice of financial services and the regulatory framework that encompasses finance, which need to be updated in *transitioning finance* so it, in turn, can properly *finance the transition*.

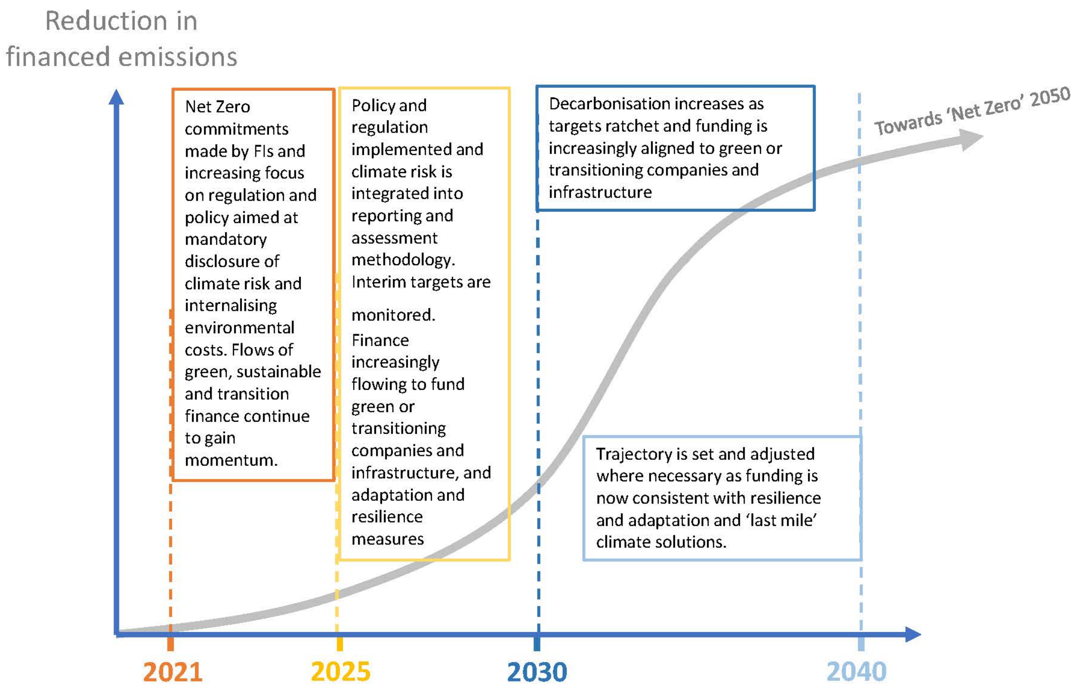
These key areas are:

- Mandatory disclosure of climate-related risks by cities, companies and at asset level. These data, aggregated, can be used by financial institutions to better disclose, understand, and manage their own climate-related risks and to finance climate solutions for resilience and adaptation. This suggests deep engagement is required between financiers and businesses and regulators/policymakers, supported by civil society.

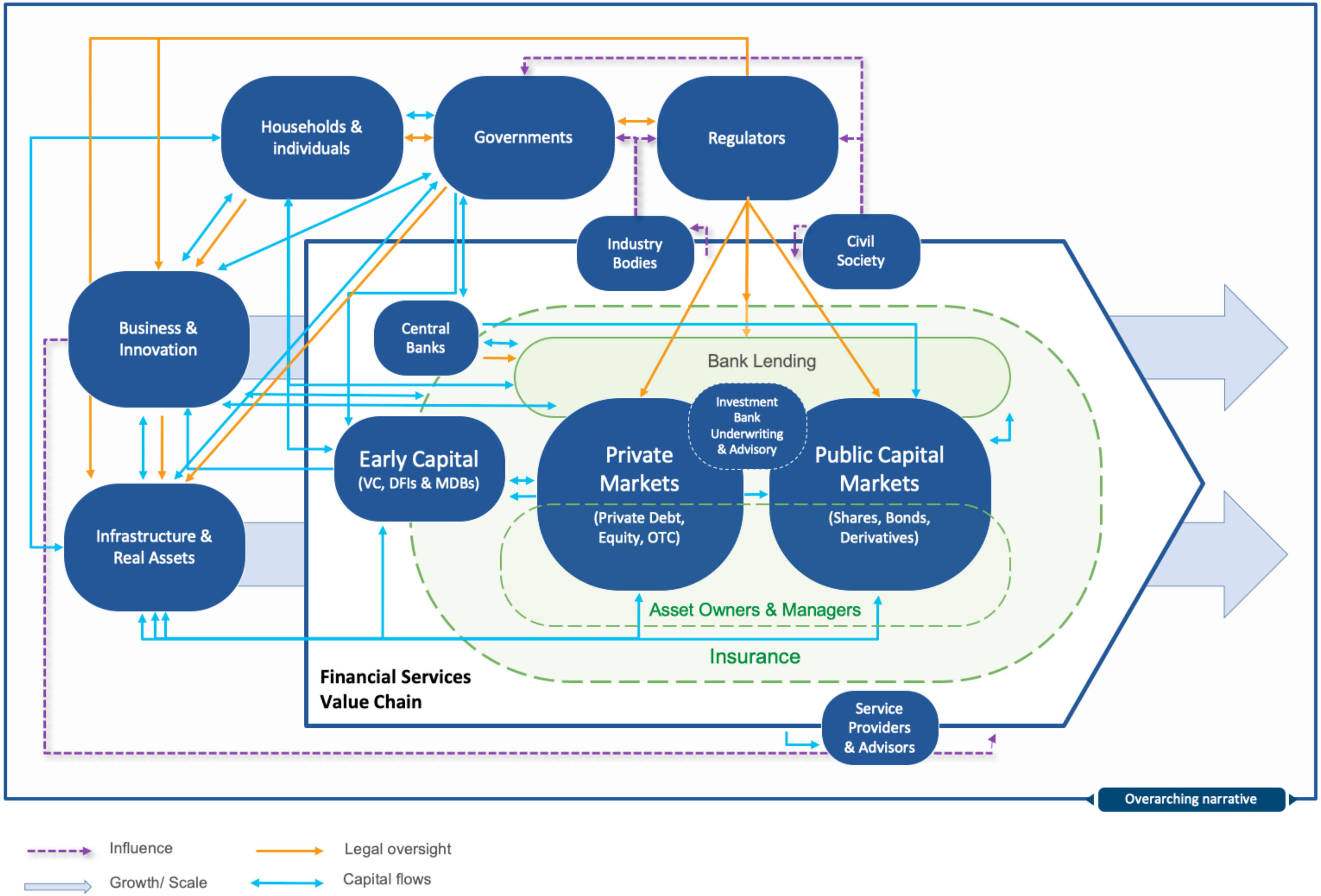
- The synthesis of these data into forming transition plans and science-based short- and long-term targets for decarbonizing financed emissions by financial institutions should in time be subject to regulatory oversight and macroprudential intervention. Transition plans and targets are also required in the real economy; this ambition will form positive feedback loops with the financial economy's own;
- This real economy change, translated financially, would update risk models and pricing signals for financiers, which would account for internalizing the cost previously posited as 'externalities' and address the market failures that have left us with the urgent need to mitigate and adapt to negative environmental destruction that threatens planetary life and the infrastructure and economies that we have built around it;
- In turn, human activity that leads to the emission of greenhouse gases and environmental destruction, such as the extraction and burning of fossil fuels as a primary energy source, will no longer be economically viable, as is increasingly being forecast by experts, analysts, academics and those in the industry itself;
- Activity is then encouraged to not only utilize the abundant existing zero-carbon alternatives (e.g. wind and solar energy, as mentioned above), but also in innovating and scaling up further solutions for both decarbonization as well as resilience and adaptation. This will ensure economic activity and growth can continue, whilst respecting planetary boundaries;
- A key consideration on this path is ensuring that capital allocated to these solutions is fair and just and considers the economically disadvantaged and those economies that are still developing and which have not had the benefit of increasing their living standards through the use of fossil fuels and greenhouse gas emissions, which the already wealthy nations had the advantage of over the last two centuries.

## FINANCE SECTOR 'TRANSITION' S-CURVE

The 'transition' S-curve represents the non-linear approach to reducing financed emissions, where the financing of green solutions is supercharged by the eventual transition of finance after regulation and, in turn, risk and pricing models are updated to ensure all finance is sustainable and working towards net-zero emissions and is reported and validated by adhering to science-based targets.



## FINANCE SYSTEM MAP



Impact 1

# Closing the “Valuation Gap”

MITIGATION &/OR ADAPTATION & RESILIENCE

**Nexus**

| | By 2021 | By 2025 | By 2030 | By 2040 |
|---|---|---|---|---|
| **Policymakers**<br>(1/4) | **Transitioning Finance**<br>• National and sub-national governments commit to phase out all direct & indirect fossil fuel subsidies by end-of-year<br>• Adopt policies placing a meaningful price on carbon emissions (via carbon tax, cap & trade or other system equitably applied) with the pricing set in accordance with best available economic analysis regarding levels sufficient to drive transition consistent with achieving net zero emissions by the 2040s.<br>• Adopt policies mandating climate risk assessment and disclosure for physical, transition and liability risks by companies and investors, inclusive of public pension funds, in line with | **Transitioning Finance**<br>• Commission economic analysis to assess extent to which material climate-related risks are integrated into markets; modify policies to address any lingering gaps<br>• Direct & indirect fossil fuel subsidies have been phased out and redirected to energy resources and infrastructure aligned with net zero emissions by the 2040s<br>• Policymakers and/or regulators ratchet carbon pricing in line with accelerating the pace of progress toward net zero by the 2040s<br>• Assess and enforce mandatory TCFD-aligned climate risk disclosures for | **Transitioning Finance**<br>• Continue to adjust carbon pricing to accelerate pace of decarbonization in line with achieving net zero emissions by the 2040s<br>• Monitor and enforce mandatory TCFD-aligned climate risk disclosures for physical, transition and liability risks<br>• Monitor and enforce credible corporate accounting for climate-related risks<br>• Assess compliance with requirement for D&O insurance to cover climate-related impacts<br>**Financing Transition** | **Transitioning Finance**<br>• Commission updated economic analysis to assess extent to which material climate-related risks are integrated into markets; modify policies to address any lingering gaps<br>• Adjust carbon pricing and use of proceeds to drive phase-out of remaining greenhouse gas emissions, including in hard-to-abate sectors<br>**Financing Transition**<br>• Adjust carbon pricing and use of revenues to drive phase-out of remaining greenhouse gas emissions, including in hard-to-abate sectors<br>• Modify trade policies as needed to ensure equitable and effective |

| | By 2021 | By 2025 | By 2030 | By 2040 |
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| **Policymakers** (2/4) | the recommendations of the Task Force on Climate-related Financial Disclosures<br>• Adopt policies requiring accountants to follow IASB guidance on accounting for climate-related risks, and support development of corporate accounting and reporting principles by the IFRS Sustainability Standards Board<br>• Adopt policies requiring Directors & Officers Liability Insurance to include coverage for climate-related impacts<br>**Financing Transition**<br>• National and sub-national governments commit to phase out all direct & indirect fossil fuel subsidies by end-of-year<br>• Policymakers and regulators incorporate Social Cost of Carbon in all decisionmaking on infrastructure, energy procurement and environmental permits/approvals<br>• In all permitting and government funding decisions regarding long-lived infrastructure (roads, pipelines, power generation facilities, transmission & distribution infrastructure, buildings, etc.) policymakers and regulators evaluate alignment with net zero emissions by the 2040s and corresponding risks of stranded assets, including physical risks posed by climate change, and identify how | physical, transition and liability risks by companies and investors<br>• Assess and enforce accountant uptake of IFRS SSB principles on climate-related risks<br>• Assess compliance with requirement for D&O insurance to cover climate-related impacts<br>**Financing Transition**<br>• Direct & indirect fossil fuel subsidies have been phased out and redirected to energy resources and infrastructure aligned with net zero emissions by the 2040s<br>• Policymakers and/or regulators ratchet carbon pricing in line with accelerating the pace of progress toward net zero by the 2040s<br>• Adjust Social Cost of Carbon in line with latest peer-reviewed science and economic analysis<br>• Ensure all relevant local government decision-makers are trained in application of Social Cost of Carbon<br>• Adjust trade policies as needed to ensure equitable and effective approaches to avoid off-shoring of GHG emissions<br>• Assess and enforce mandatory TCFD-aligned climate risk disclosures for physical, transition and liability risks | • Adjust Social Cost of Carbon in line with updated science and economic analysis<br>• Monitor and enforce mandatory TCFD-aligned climate risk disclosures for physical, transition and liability risks<br>• Monitor and enforce credible corporate accounting for climate-related risks<br>• Modify trade policies as needed to ensure equitable and effective approaches to avoid off-shoring of GHG emissions<br>• Assess compliance with requirement for D&O insurance to cover climate-related impacts<br>• Refine and implement policies to remunerate additional uptake of carbon via credible Nature Based Solutions | approaches to avoid off-shoring of GHG emissions<br>• Implement policies to remunerate additional uptake of carbon via credible Nature Based Solutions |

| | By 2021 | By 2025 | By 2030 | By 2040 |
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| **Policymakers**<br>(3/4) | losses tied to stranded assets will be allocated<br>• In permitting infrastructure for energy extraction, production or use, regulators assess estimated decommissioning and clean-up costs, and require financial assurance sufficient to address full site restoration upon decommissioning – whether or not decommissioning occurs at the end of the facility's anticipated useful lifetime or earlier<br>• National governments adopt trade policies to avoid "off-shoring" of greenhouse gas emissions (e.g., carbon border adjustment mechanisms, tariffs, etc.)<br>• National governments adopt policies requiring TCFD-aligned mandatory climate risk assessment and disclosure by companies and investors<br>• National governments and prudential authorities adopt policies requiring accountants to follow IFRS guidance on accounting for climate-related risks<br>• National and subnational governments adopt policies requiring Directors & Officers Liability Insurance to include coverage for climate-related impacts<br>• Modify procurement policies and plans to account for Social Cost of Carbon (e.g., allocating SCC value on | • Assess and enforce accountant uptake of IASB guidance on climate-related risks<br>• Assess compliance with requirement for D&O insurance to cover climate-related impacts<br>• Implement policies to remunerate additional uptake of carbon via credible Nature Based Solutions | | |

| | By 2021 | By 2025 | By 2030 | By 2040 |
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| **Policymakers** (4/4) | the "cost" side of cost/benefit calculations)<br>• National governments adopt policies based on peer-reviewed science and economic analysis to place a monetary value on additional uptake of carbon via credible Nature Based Solutions (e.g., forest conservation, reduced pace/intensity of harvesting, etc.) | | | |
| **Civil Society** (1/3) | **Transitioning Finance**<br>• Civil Society calls on policymakers – including all G20 leaders - to end all government support for fossil fuels and fossil fuel-based infrastructure – including direct and indirect subsidies<br>• Civil Society calls on policymakers to adopt robust and equitable carbon pricing (carbon tax, fee and dividend, cap & trade or other)<br>• Citizens, consumers, individual investors and pensioners call on corporations and institutional investors to fully assess and disclose material climate-related risks<br>• Social movements call out corporations and investors that derive profits via practices that harm people and planet<br>• Civil society drives deployment of independent benchmarking of corporate and investor performance toward the Paris Agreement's | **Transitioning Finance**<br>• Civil Society engages with governments that have not fully phased out direct and indirect fossil fuel subsidies, and works with them to take immediate corrective action<br>• Civil Society calls for ratcheting carbon pricing systems<br>• Citizens, consumers, individual investors and pensioners call on institutional investors to manage climate-related risks in line with achieving net zero emissions by the 2040s<br>• Social movements call for policies that fully internalize costs of climate-related impacts of corporate and investor actions, practices and products, and also ensure that executive compensation is calibrated accordingly (e.g., compensation is adjusted in inverse proportion to negative climate impacts) | **Transitioning Finance**<br>• Civil Society presses policymakers for updates to carbon pricing based on updated peer-reviewed science and economic analysis<br>• Civil Society continues to engage with policymakers to ensure adoption and implementation of policies to ensure markets discourage GHG emissions and reward progress toward net zero emissions by the 2040s<br>• Citizens, consumers, individual investors and pensioners take stock of progress by institutional investors toward achieving their "fair share" of 50% emissions reductions by 2030, and press for accelerated action by those that are not keeping pace<br>• Civil Society calls for updates to policies that are intended to internalize costs of climate-related impacts of corporate and investor actions, practices and products | **Transitioning Finance**<br>• As mid-century rapidly approaches, Civil Society calls for modifications to carbon pricing policies and market mechanisms to drive market growth and integrity to achieve net zero emissions by the end of this decade at latest<br>• Citizens, consumers, individual investors and pensioners continue to press for transparency, climate-competent governance (including executive compensation) and avoidance of greenwashing by institutional investors<br>• As the costs of climate impacts mount and attribution science becomes ever more precise, Civil Society organizations continue to pursue and win litigation for damages tied to climate-related impacts (including with accounting/auditing firms and Directors and Corporate Officers of high-emitting companies) |

<table>
<tr><th></th><th>By 2021</th><th>By 2025</th><th>By 2030</th><th>By 2040</th></tr>
<tr>
<td>Civil Society<br>(2/3)</td>
<td>objectives<br><br>Financing Transition<ul><li>Civil Society calls on policymakers – including all G20 leaders - to end all government support for fossil fuels and fossil fuel-based infrastructure – including direct and indirect subsidies</li><li>Civil Society calls on policymakers to adopt robust and equitable carbon pricing (carbon tax, fee and dividend, cap & trade or other)</li><li>Civil Society calls on policymakers and regulators to factor robust Social Cost of Carbon based on peer-reviewed economic analysis into decision-making</li><li>Civil Society calls on policymakers to adopt and implement trade policies that fully account for the costs of extra-territorial GHG emissions associated with goods and services consumed domestically</li><li>Social movements call for policies that fully internalize costs of climate-related impacts of corporate and investor actions, practices and products, and also ensure that executive compensation is calibrated accordingly (e.g., compensation is adjusted in inverse proportion to negative climate impacts)</li></ul></td>
<td><ul><li>Civil Society organizations bring more frequent litigation seeking damages for climate-related impacts, and calls on policymakers, credit rating agencies and institutional investors to incorporate climate-related liability risks into investment valuations</li></ul>Financing Transition<ul><li>Civil Society engages with governments that have not fully phased out direct and indirect fossil fuel subsidies, and works with them to take immediate corrective action</li><li>Civil Society calls for ratcheting carbon pricing systems and Social Cost of Carbon</li><li>Citizens and consumers call on corporations to fully integrate climate-related risks and climate solutions opportunities into their value chains</li><li>Citizens, consumers, individual investors and pensioners call on corporations and institutional investors to manage climate-related risks in line with achieving net zero emissions by the 2040s</li><li>Civil Society calls for updates to policies that are intended to internalize costs of climate-related impacts of corporate and investor actions, practices and products</li></ul></td>
<td>Financing Transition<ul><li>Civil Society presses policymakers for updates to carbon pricing and social cost of carbon based on updated peer-reviewed science and economic analysis</li><li>Civil Society continues to engage with policymakers to ensure adoption and implementation of policies to ensure markets discourage GHG emissions and reward progress toward net zero emissions by the 2040s</li><li>Citizens, consumers, individual investors and pensioners take stock of progress by corporations toward achieving their “fair share” of 50% emissions reductions by 2030, and press for accelerated action by those that are not keeping pace</li><li>Civil Society continues with calls for updates to policies that are intended to internalize costs of climate-related impacts of corporate and investor actions, practices and products</li><li>Civil Society organizations continue to bring, and increasingly win, litigation for damages tied to climate-related impacts (including with the Directors and Corporate Officers of high-emitting companies)</li></ul></td>
<td>Financing Transition<ul><li>For sectors with GHG emissions that continue to be hard-to-abate, Civil Society calls for carbon pricing and corresponding use of revenues that are sufficiently robust to be technology-forcing and drive markets for net zero emissions alternatives</li><li>As mid-century rapidly approaches, Civil Society calls for modifications to carbon pricing policies and market mechanisms to drive market growth and integrity in Nature Based Solutions as a complement to the GHG reductions needed to achieve net zero emissions by the end of this decade at latest</li><li>Citizens, consumers, individual investors and pensioners continue to press for transparency, climate-competent governance (including executive compensation) and avoidance of greenwashing by corporations</li><li>As the costs of climate impacts mount and attribution science becomes ever more precise, Civil Society organizations continue to pursue and win litigation for damages tied to climate-related impacts (including with the Directors and Corporate Officers of high-emitting companies)</li></ul></td>
</tr>
</table>

| | By 2021 | By 2025 | By 2030 | By 2040 |
|---|---|---|---|---|
| **Civil Society**<br>(3/3) | • Social movements call out corporations and investors that derive profits via practices that harm people and planet<br>• Civil Society calls for policies that value the climate solutions benefits of nature, including direct protection of 30% of land and sea as well as remuneration for additional carbon uptake benefits of Nature Based Solutions<br>• Civil society drives deployment of independent benchmarking of corporate and investor performance toward the Paris Agreement's objectives | • Civil Society presses for increased protection of land-based and ocean ecosystems, tapping resources including re-directed fossil fuel subsidies and revenues from carbon markets<br>• Civil Society organizations bring more frequent litigation seeking damages for climate-related impacts | | |
| **Local Government Actors**<br>(1/2) | **Transitioning Finance**<br>• Modify procurement policies and plans to account for Social Cost of Carbon (e.g., allocating SCC value on the "cost" side of cost/benefit calculations)<br>• To the extent feasible, local governments should only issue credible "green" or "climate" bonds and ensure use of proceeds is aligned with net zero emissions by the 2040s and/or promoting climate adaptation and resilience<br>• Require local public pension funds to fully implement TCFD recommendations, including with regard to assessing and disclosing | **Transitioning Finance**<br>• Adjust Social Cost of Carbon in line with latest peer-reviewed science and economic analysis<br>• Ensure all relevant local government investment and procurement decision-makers are trained in application of Social Cost of Carbon<br>• All procurements and investments account for Social Cost of Carbon<br>• All new investments in local infrastructure account for costs of adapting to escalating physical risks of climate change as well as climate-related transition risks, including | **Transitioning Finance**<br>• Further adjust Social Cost of Carbon in line with latest peer-reviewed science and economic analysis<br>• Continue to train relevant local government procurement and investment decisionmakers, and refresh awareness of applying Social Cost of Carbon in procurement and investment decisions<br>• All procurements and investments account for updated Social Cost of Carbon<br>• All new investments in local infrastructure account for escalating costs of adapting to physical risks of climate change as well as climate- | **Transitioning Finance**<br>• All local government procurement and investment are aligned with net zero emissions and climate resilience<br>• Local government public pension funds' and third party asset managers' portfolios are aligned with achieving net zero emissions this decade, and publicly disclose material climate-related risks<br>**Financing Transition**<br>• All local government approvals of, and investment in, infrastructure are aligned with achieving net zero |

| | By 2021 | By 2025 | By 2030 | By 2040 |
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| **Local Government Actors**<br><br>(2/2) | exposures to climate-related physical, transition and liability risks<br><br>• For all local government investments in new infrastructure, ensure that decommissioning and/or climate resilience retrofit costs are assessed and full financial assurance required up front regardless of whether or not decommissioning or any climate resilience retrofit occurs at the end of the project's anticipated useful lifetime. Financial assurance for undersecured legacy projects also should be required.<br><br>**Financing Transition**<br><br>• Local governments fully incorporate Social Cost of Carbon in decision making on design and permits for long-lived infrastructure (e.g. buildings, transportation systems) as well as procurement of goods and services<br>• To the extent feasible, local governments should only issue credible "green" or "climate" bonds with use of proceeds aligned with net zero emissions by the 2040s and/or promoting climate adaptation and resilience<br>• In all local permits for, and investments in, new infrastructure, ensure that decommissioning and/or climate resilience retrofit costs are | decommissioning of any stranded assets<br><br>• Local public pension funds and their third-party asset managers are fully implementing the TCFD recommendations, including with regard to assessing and disclosing exposures to climate-related physical, transition and liability risks<br><br>**Financing Transition**<br><br>• Ensure all relevant local government permitting and investment decision-makers are trained in the application of the Social Cost of Carbon<br>• All new permits for, and investments in, local infrastructure account for costs of adapting to escalating physical risks of climate change as well as climate-related transition risks, and decommissioning of any assets that become stranded or have reached the end of their useful lifetime<br>• All local government-issued bonds that relate to uses with any material climate impact are certified as "green" or "climate" bonds with use of proceeds aligned with net zero emissions by the 2040s and/or promoting climate adaptation and resilience | related transition risks, including decommissioning of any stranded assets<br><br>• Local public pension funds and their third-party asset managers assess and manage climate-related risks in line with the TCFD recommendations<br><br>**Financing Transition**<br><br>• Continue to train relevant local government permitting, procurement and investment decisionmakers regarding application of the Social Cost of Carbon in permitting, procurement and investment decisions<br>• All new permits for, and investments in, local infrastructure account for costs of escalating costs of adapting to physical risks of climate change as well as climate-related transition risks, including decommissioning of any stranded assets<br>• Local governments only invest in infrastructure and services aligned with achieving net zero emissions by the 2040s and promoting climate resilience/adaptation. | emissions this decade and ensuring resilience to climate-related impacts<br><br>• Training is ongoing for local government permitting, procurement and investment decisionmakers regarding how to ensure alignment with net zero emissions this decade as well as resilience to climate impacts<br>• The costs of decommissioning any stranded assets are borne by the owners of the assets |

| | By 2021 | By 2025 | By 2030 | By 2040 |
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| | assessed, with financial assurance required, and allocated pursuant to explicit permit conditions regardless of whether or not decommissioning or climate resilience retrofit occurs at the end of the project's anticipated useful lifetime | | | |
| **Corporates**<br>(1/3) | **Transitioning Finance**<br>• Corporations adopt internal carbon pricing based on the Social Cost of Carbon and factor it into CapEx plans as well as procurement policies and practices (e.g., energy supply, raw materials, etc.)<br>• Corporations fully implement TCFD recommendations, including by assessing the costs of climate-related physical, transition and liability risks and undertaking scenario analysis to illuminate transition pathways to net zero/1.5C alignment and avoidance of stranded assets<br>• Corporate-issued bonds are certified "green" or "climate" bonds and proceeds are used for purposes aligned with achieving net zero emissions by the 2040s and/or promoting resilience to climate impacts; at minimum, corporate-issues bonds do no harm with regard to achieving alignment with net zero emissions by the 2040s and promoting resilience to climate-related risks | **Transitioning Finance**<br>• Corporations ratchet internal carbon pricing based on Social Cost of Carbon, and continue to factor it into CapEx and procurement plans and policies<br>• TCFD-aligned disclosures embrace transparency with regard to assumptions and practices as to internal carbon pricing and how it bears on CapEx, business and procurement plans and policies<br>• All corporate finance is aligned with achieving net zero emissions by the 2040s and promoting resilience to climate impacts, including corporate bonds, supply chain finance, finance products offered to customers, etc.<br>• All other new corporate finance and investment is aligned with net zero emissions by the 2040s, including supply chain finance, customer finance, etc.<br>• Corporate Boards receive updated training to ensure that the value of material climate-related risks is taken into account across the enterprise, | **Transitioning Finance**<br>• CapEx and procurement plans and policies fully incorporate internal carbon pricing based on updated Social Cost of Carbon<br>• TCFD-aligned disclosures continue to be transparent with regard to updated assumptions and practices as to internal carbon pricing on how it bears on CapEx, business and procurement plans and policies – including avoidance of stranded assets and reduced exposure to other climate-related risks<br>• All corporate finance is aligned with achieving net zero emissions by the 2040s and promoting resilience to climate impacts, including corporate bonds, supply chain finance, finance products offered to customers, etc.<br>• Corporate Boards receive updated training and meet their fiduciary obligations to ensure the value of material climate-related risks is taken into account across the enterprise, including via internal carbon pricing tied to the Social Cost of Carbon | **Transitioning Finance**<br>• CapEx, business plans and procurement are aligned with zeroing out emissions in this decade, based on planning that fully incorporates carbon pricing<br>• Financial disclosures continue to be transparent with regard to updated assumptions and practices for internal carbon pricing and how it bears on CapEx, business and procurement plans and policies – including write-downs of carbon-intensive assets and reduced exposure to other climate-related risks<br>• All corporate finance is aligned with achieving net zero emissions by the 2040s and with supporting resilience to climate-related impacts<br>• Corporate Boards rigorously ensure the value of climate-related risks and opportunities are taken into account across value chains, and that executive compensation is calibrated accordingly. |

| | By 2021 | By 2025 | By 2030 | By 2040 |
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| **Corporates**<br>(2/3) | • Corporate boards are trained for climate-competent governance, including exercise of fiduciary duties to ensure that the value of material climate-related risks is taken into account across the enterprise<br>• Corporations procure D&O liability insurance with comprehensive coverage for all climate-related risks<br>• Executive compensation is tied to performance metrics on aligning CapEx, business plans and procurement with achieving net zero emissions by the 2040s<br>• Corporations implement IASB guidance on accounting for, and disclosing, climate-related risks, and engage with the IFRS Sustainability Standards Board to support standards that are both practical and ambitious.<br>• Corporations publicly support phase-out of direct and indirect fossil fuel subsidies as well as adoption of carbon pricing mechanisms that reflect the Social Cost of Carbon<br>**Financing Transition**<br>• Corporate-issued bonds are certified "green" or "climate" bonds and proceeds are used only for purposes aligned with achieving net zero emissions by the 2040s and/or | including via internal carbon pricing tied to the Social Cost of Carbon<br>• Corporations continue to procure comprehensive D&O liability coverage inclusive of climate-related risks<br>• Executive compensation increasingly is tied to performance metrics on aligning CapEx, business plans and procurement with achieving net zero emissions by the 2040s<br>• Corporations embrace sustainability in corporate accounting and reporting, including through the principles developed by the IFRS Sustainability Standards Board.<br>• Corporations support ratchets to carbon pricing policies and mechanisms as needed to promote alignment with net zero emissions by the 2040s and to support investment in climate resilience<br>**Financing Transition**<br>• Corporations continue to issue certified climate bonds where proceeds are used only to support alignment with achieving net zero emissions by the 2040s and/or resilience to climate impacts<br>• CapEx and procurements across corporate value chains are adjusted to account for costs of climate-related physical, transition and liability risks | • Corporations continue to procure comprehensive D&O liability coverage inclusive of climate-related risks<br>• Executive compensation is materially tied to performance metrics on aligning CapEx, business and procurement with achieving net zero emissions and fully embedding costs from climate impacts by the 2040s<br>• Corporations continue to implement IFRS Sustainability Standards on accounting for, and disclosing, climate-related risks<br>• Corporations support ratchets to carbon pricing policies and mechanisms as needed to promote alignment with net zero emissions by the 2040s and to scale investment in climate resilience<br>**Financing Transition**<br>• All corporate finance is aligned with achieving net zero emissions by the 2040s, including corporate bonds, supply chain finance, and financial products offered to customers<br>• CapEx and procurement plans account for costs of climate-related physical, transition and liability risks<br>• Corporations support ratchets to carbon pricing policies and mechanisms as needed to promote alignment with net zero emissions by | **Financing Transition**<br>• All corporate finance and investment supports achievement of net zero emissions in this decade and/or climate resilience and adaptation, including via corporate bonds, supply chain finance, and financial products offered to customers<br>• Corporations support ratchets to carbon pricing policies and mechanisms as needed to ensure achievement of net zero emissions in this decade and to scale investment in climate resilience<br>• Corporate RD&D investments prioritize innovations and commercialization with regard to lingering hard-to-abate elements of global value chains and climate resilience solutions |

| | By 2021 | By 2025 | By 2030 | By 2040 |
|---|---|---|---|---|
| **Corporates** (3/3) | promoting resilience to climate impacts<br>• Corporate CapEx and procurement plans and policies across corporate value chains are recalibrated to account for the costs of climate-related physical, transition and liability risks, such that net zero- and climate resilience-aligned investments and procurements are prioritized<br>• Corporations publicly support phase-out of direct and indirect fossil fuel subsidies as well as adoption of carbon pricing mechanisms that reflect the Social Cost of Carbon<br>• Corporate RD&D investments are focused on innovations aligned with net zero emissions by the 2040s, accelerating pathways to commercialization and market competitiveness | • Corporations support ratchets to carbon pricing mechanisms and allocation of carbon pricing revenues toward net zero- and climate resilience-aligned solutions<br>• Corporate RD&D investments continue to focus on innovations and commercialization of products and services aligned with net zero emissions by the 2040s. | the 2040s and to scale investment in climate resilience<br>• Corporate RD&D investments prioritize innovations and commercialization with regard to hard-to-abate elements of global value chains | |
| **Financial Institutions and Actors** | | | | |
| *Central Banks* (1/2) | **Transitioning Finance**<br>• Exercise supervisory/prudential authority to require financial institutions to assess and disclose material climate-related financial risk exposures consistent with TCFD recommendations<br>• Commit and take immediate action to integrate climate-related risks into monetary frameworks and models to | **Transitioning Finance**<br>• Require annual climate risk stress tests of financial institutions under supervisory/prudential authority<br>• Undertake climate risk stress tests for jurisdictional banking and insurance sectors under a range of carbon pricing scenarios<br>• Review financial institutions' climate risk disclosures and enforce against | **Transitioning Finance**<br>• Continue to require and review annual climate risk stress tests of jurisdictional financial institutions under supervisory/prudential authority<br>• Update research on systemic climate-related risks to financial markets and corresponding recommendations to support a smooth and just transition | **Transitioning Finance**<br>• Exercise supervisory and prudential authority to ensure financial institutions are pursuing all necessary measures to align with net zero emissions by the end of this decade<br>• Update monetary frameworks and models to account for climate impacts on macroeconomic outcomes |

| | By 2021 | By 2025 | By 2030 | By 2040 |
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| *Central Banks*<br>(2/2) | account for climate impacts on macroeconomic outcomes<br>• Undertake and regularly publish research regarding the systemic risks to financial markets associated with climate change, with recommendations regarding how to account for and manage these risks including via a planned and just transition that minimizes short-term volatility and inflation; integrate such recommendations in mechanisms such as Basel III Capital Requirements Regulation and Solvency II.<br>**Financing Transition**<br>• Account for value of climate-related risks in all lending, refinancing and asset purchase activity – e.g., by conditioning investments on alignment with net zero by the 2040s and fully integrating the costs of climate-related risks, and by prioritizing net zero-aligned investments | any failures to file or adequately assess and disclose<br>• Update monetary frameworks and models to account for climate impacts – including physical, transition and liability risks -- on macroeconomic outcomes<br>• Update research on systemic climate-related risks to financial markets and corresponding recommendations to support a smooth and just transition<br>**Financing Transition**<br>• Align all lending, refinancing and asset purchase activity with achieving net zero emissions by the 2040s | • Update monetary frameworks and models to account for climate impacts on macroeconomic outcomes<br>**Financing Transition**<br>• Continue to ensure all lending, refinancing and asset purchase activity is aligned with achieving net zero emissions by the 2040s and/or promoting adaptation/resilience to climate impacts | **Financing Transition**<br>• Ensure all lending, refinancing and asset purchase activity is aligned with achieving net zero emissions by the 2040s and promoting adaptation/resilience to climate impacts |
| *Banking and Lending*<br>(1/4) | **Transitioning Finance**<br>• Commercial banks commit to fully implement TCFD recommendations, including by assessing the costs of climate-related physical, transition and liability risks across lending and investment portfolios as well as underwriting, implementing climate- | **Transitioning Finance**<br>• Commercial banks are fully implementing TCFD recommendations, including by assessing the costs of climate-related physical, transition and liability risks, have implemented climate-competent governance, and continue to | **Transitioning Finance**<br>• Commercial banks continue to align all commercial activities with net zero emissions and fully embedding costs from climate impacts by the 2040s, with executive compensation tied to achieving interim targets | **Transitioning Finance**<br>• Governance, including executive compensation, is structured to ensure all commercial activities are aligned with achieving net zero emissions in this decade and building climate resilience |

| | By 2021 | By 2025 | By 2030 | By 2040 |
|---|---|---|---|---|
| *Banking and Lending*<br><br>(2/4) | competent governance, and undertaking scenario analysis to illuminate transition pathways to net zero/1.5C alignment and avoidance of stranded assets<br><br>• Commercial banks encourage investee companies to fully implement TCFD recommendations, including by assessing the costs of climate-related physical, transition and liability risks, implementing climate-competent governance, and undertaking scenario analysis to illuminate transition pathways to net zero/1.5C alignment and avoidance of stranded assets<br><br>• Due to outsized risks of lending/investment in coal production or infrastructure, commercial banks commit to cease all coal-related lending/investment/underwriting in line with phasing out coal in the OECD by 2030 and globally by 2040, and cease all lending/investment in new oil or gas fields by the end of 2021; in connection with any new investment or lending in oil or gas infrastructure, commercial banks disclose the anticipated lifetime of the asset(s) and their expected greenhouse gas emissions<br><br>• Commercial banks identify timelines for phasing out fossil fuel investment, lending and underwriting, both directly and via intermediaries, and for | undertake scenario analysis to illuminate transition pathways to net zero/1.5C alignment and avoidance of stranded assets<br><br>• Commercial banks offer favorable lending/investment/underwriting terms to investee companies and other clients to account for value of ESG integration including assessment and management of climate-related risks<br><br>• Commercial bank lending/investment/underwriting activity is fully aligned with phase-out of coal in OECD by 2030 and throughout the rest of the world by 2040<br><br>• Exclusion policies for fossil fuels are updated and implemented<br><br>• Deforestation impacts have been eliminated from all commercial activities, with ongoing monitoring/tracing to avoid backsliding<br><br>• Commercial banks publicly support updates to carbon pricing mechanisms and Social Cost of Carbon to align markets and government decision-making with achieving net zero emissions by the 2040s<br><br>• Commercial banks engage with public finance institutions to ensure public finance is maximally deployed to enable investment in climate solutions | • Exclusion policies are in line with achieving net zero emissions by the 2040s, including phase-out of coal globally by 2040<br><br>• Policies are updated to incorporate value of climate resilience across commercial activities<br><br>• Commercial banks continue to support updates to carbon pricing policies and social cost of carbon to internalize actual societal costs of GHG emissions<br><br>• Monitoring continues to ensure elimination of deforestation-related impacts of all commercial activities<br><br>**Financing Transition**<br><br>• With investment and lending portfolios having shifted away from high-carbon and into low and zero-carbon opportunities, commercial banks align investment and lending with phase-out of fossil fuels (e.g., via interest rates calibrated in direct proportion to GHG emissions profiles of investments) and increase investment in nature-based solutions<br><br>• Commercial banks continue to scale investment in climate solutions in emerging markets and developing countries, including via blended finance vehicles and other risk-adjusting mechanisms | • Exclusion policies prohibit investment or lending for new fossil fuel infrastructure<br><br>• Direct and indirect policy engagement continues to support internalization of the costs of climate-related externalities, including through updated carbon pricing and social cost of carbon<br><br>• Monitoring is ongoing to ensure no deforestation impacts associated with any commercial activities<br><br>**Financing Transition**<br><br>• All investment, lending and underwriting is aligned with achieving net zero emissions in this decade and promoting climate resilience, including in emerging markets and developing countries |

| | By 2021 | By 2025 | By 2030 | By 2040 |
|---|---|---|---|---|
| *Banking and Lending*<br><br>(3/4) | eliminating deforestation impacts from all commercial activities<br><br>• Commercial banks publicly support phase-out of direct and indirect fossil fuel subsidies, adoption of carbon pricing mechanisms aligned with achieving net zero emissions by the 2040s, and incorporation of the Social Cost of Carbon in all material government permits and approvals<br><br>• Commercial banks call on policymakers and public finance institutions to bring all public finance into alignment with the Paris Agreement and to deploy public finance to sufficiently de-risk the investment environment to enable private investment in climate solutions in developing countries and emerging markets<br><br>• Commercial banks contribute to the development of financial markets, vehicles and instruments designed to scale investment and finance flows to emerging markets and developing countries<br><br>• Commercial banks assess full range of business opportunities associated with transition to zero carbon economy<br><br>**Financing Transition**<br><br>• Taking into account the value of avoided climate-related risks, commercial banks increase underwriting of corporate-issued | in developing countries and emerging markets<br><br>**Financing Transition**<br><br>• Commercial banks continue to take into account the value of avoided climate impacts in rebalancing lending and investment portfolios and scaling investment in climate solutions aligned with achieving net zero emissions by the 2040s and promoting climate resilience<br><br>• Lending and investment vehicles fully incorporate value of climate-related risks, with demonstrably advantageous terms available for lending and investments aligned with achieving net zero emissions by the 2040s and / or promoting climate resilience<br><br>• Deployment of de-risking mechanisms, including via public finance, enables commercial banks to materially increase investment in climate solutions in emerging markets and developing countries<br><br>• Commercial banks partner with non-financial corporates to offer favorable financing terms for decarbonization across their value chains<br><br>• Commercial banks scale investment and lending for transition to net zero emissions economy | • Commercial banks continue to partner with non-financial corporates to finance decarbonization across value chains, including in hard-to-abate sectors<br><br>• Commercial banks expand lending and investment for transition to net zero emissions economy | |

| | By 2021 | By 2025 | By 2030 | By 2040 |
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| *Banking and Lending*<br><br>(4/4) | certified “green” or “climate” bonds where proceeds are to be used for purposes aligned with achieving net zero emissions by the 2040s and/or promoting resilience to climate impacts<br><br>• Taking into account the value of avoided climate-related risks, commercial banks offer favorable terms for investment and lending aligned with achieving net zero emissions by the 2040s and/or promoting climate adaptation and resilience (e.g., lower interest rates on green mortgages and preferable financing terms for electric vehicles)<br><br>• Commercial banks materially scale investment in climate solutions (e.g., renewable energy, green hydrogen, climate-resilient infrastructure) in developing countries and emerging markets, including via blended finance opportunities that meet risk tolerances, and disclose the proportion of their commercial activities in developing countries and emerging markets that are aligned with achieving net zero emissions by the 2040s and/or promoting climate resilience<br><br>• Commercial banks begin to scale deployment of finance vehicles to accelerate transition to zero carbon economy – e.g., coal plant securitization that enables accelerated | | | |

| | By 2021 | By 2025 | By 2030 | By 2040 |
|---|---|---|---|---|
| | decommissioning and reinvestment in renewable energy and energy storage | | | |
| *Investors*<br><br>(1/5) | **Transitioning Finance**<br><br>Asset Owners<br><br>• Asset Owners call on investee companies to fully implement TCFD recommendations, including by assessing the costs of climate-related physical, transition and liability risks, implementing climate-competent governance, and undertaking scenario analysis to illuminate transition pathways to net zero/1.5C alignment and avoidance of stranded assets<br><br>• Asset Owners call on investee companies to adopt internal carbon pricing and factor it into CapEx plans as well as procurement policies and practices (e.g., energy supply, raw materials, etc.)<br><br>• Asset Owners call on investee companies to implement IASB guidance on climate risk accounting<br><br>• Asset Owners commit to implement TCFD recommendations, including by assessing climate-related physical, transition and liability risks across their portfolio and undertaking scenario analysis to illuminate pathways to net zero/1.5C alignment<br><br>• Asset Owners publicly support phase-out of direct and indirect fossil fuel subsidies as well as adoption of | **Transitioning Finance**<br><br>Asset Owners<br><br>• Asset Owners continue to engage investee companies to ensure robustness and transparency of TCFD disclosures for physical, transition and liability risks<br><br>• For investee companies that do not fully implement TCFD recommendations, adopt internal carbon pricing to support decarbonization plans in line with achieving net zero emissions by the 2040s, and implement IASB guidance on climate risk accounting, Asset Owners escalate engagement tactics to close these gaps<br><br>• Asset Owners fully implement TCFD recommendations, including by assessing climate-related physical, transition and liability risks across their portfolio, implementing climate-competent governance, and undertaking scenario analysis to illuminate pathways to net zero/1.5C alignment<br><br>• Fossil fuel subsidies have been phased out. Asset Owners support ratchets to carbon pricing mechanisms and Social Cost of Carbon in line with accelerating the pace of progress | **Transitioning Finance**<br><br>Asset Owners<br><br>• Asset Owners regularly undertake climate risk analysis and disclosure, including by assessing climate-related physical, transition and liability risks across their portfolio and updating scenario analysis to illuminate pathways for portfolio alignment with net zero emissions by the 2040s<br><br>• Asset Owners support ratchets to carbon pricing mechanisms and Social Cost of Carbon as needed to promote alignment with net zero emissions by the 2040s and scaling investment in climate resilience<br><br>• Asset Owners continue to engage investee companies to fully assess and disclose climate-related risks and opportunities, and to implement climate risk accounting<br><br>• 50% reduction in portfolio emissions achieved<br><br>Asset Managers<br><br>• Asset Managers regularly undertake climate risk analysis and disclosure, including by assessing climate-related physical, transition and liability risks across their portfolio and updating | **Transitioning Finance**<br><br>Asset Owners<br><br>• Asset Owners' portfolios are aligned with achieving net zero emissions by the 2040s and with supporting resilience to climate-related impacts<br><br>• Asset Owners support further ratchets to carbon pricing mechanisms and Social Cost of Carbon as needed to ensure achievement of net zero emissions in this decade and to scale investment in climate resilience<br><br>• Asset Owners continue to engage investee companies to ensure robust climate risk assessment, disclosure and accounting<br><br>• Portfolio emissions profile on track for achieving net zero emissions in this decade<br><br>Asset Managers<br><br>• Asset Managers' portfolios are aligned with achieving net zero emissions by the 2040s and with supporting resilience to climate-related impacts<br><br>• Asset Managers support further ratchets to carbon pricing mechanisms and Social Cost of Carbon as needed to ensure achievement of net zero |

| | By 2021 | By 2025 | By 2030 | By 2040 |
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| *Investors*<br><br>(2/5) | carbon pricing policies and mechanisms to incorporate the Social Cost of Carbon in government decision-making<br><br>• Asset owners challenge their investment consultants to improve the breadth and depth of their advice to clients on the risks of climate change as well as opportunities presented by climate solutions for mitigation and resilience<br><br>Asset Managers<br><br>• Asset Managers call on investee companies to fully implement TCFD recommendations, including by assessing the costs of climate-related physical, transition and liability risks, implementing climate-competent governance, and undertaking scenario analysis to illuminate transition pathways to net zero/1.5C alignment and avoidance of stranded assets<br><br>• Asset Managers call on investee companies to adopt internal carbon pricing and factor it into CapEx plans as well as procurement policies and practices (e.g., energy supply, raw materials, etc.)<br><br>• Asset Managers call on investee companies to implement IASB guidance on climate risk accounting | toward achieving net zero emissions by the 2040s<br><br>Asset Managers<br><br>• Asset Managers continue to engage investee companies to ensure robustness and transparency of TCFD disclosures for physical, transition and liability risks<br><br>• For investee companies that do not fully implement TCFD recommendations, adopt internal carbon pricing to support decarbonization plans in line with achieving net zero emissions by the 2040s, and implement IASB guidance on climate risk accounting, Asset Managers escalate engagement tactics to close these gaps<br><br>• Asset Managers fully implement TCFD recommendations, including by assessing climate-related physical, transition and liability risks across their portfolio, implementing climate-competent governance, and undertaking scenario analysis to illuminate transition pathways to net zero/1.5C alignment<br><br>• Fossil fuel subsidies have been phased out. Asset Managers support ratchets to carbon pricing mechanisms and Social Cost of Carbon in line with accelerating the pace of progress | scenario analysis to illuminate pathways for portfolio alignment with net zero emissions by the 2040s<br><br>• Asset Managers support ratchets to carbon pricing policies and mechanisms as needed to promote alignment with net zero emissions by the 2040s and to scale investment in climate resilience<br><br>• Asset Managers continue to engage investee companies to fully assess and disclose climate-related risks and opportunities, and to implement climate risk accounting<br><br>• 50% reduction in portfolio emissions achieved<br><br>**Financing Transition**<br><br>Asset Owners<br><br>• Asset Owners continue to increase investments aligned with achieving net zero emissions by the 2040s and promoting climate resilience, including via corporate bonds<br><br>• Asset Owners materially increase investments in emerging markets and developing countries in line with achieving net zero emissions by the 2040s and supporting climate resilience<br><br>• Asset Owners call on Asset Managers to provide a broader range of | emissions in this decade and to scale investment in climate resilience<br><br>• Asset Managers continue to engage investee companies to ensure robust climate risk assessment, disclosure and accounting<br><br>• Portfolio emissions profile on track for achieving net zero emissions in this decade<br><br>**Financing Transition**<br><br>Asset Owners<br><br>• Asset Owners further increase investments aligned with achieving net zero emissions in this decade and supporting climate resilience, including in emerging markets and developing countries<br><br>• Asset Owners call on Asset Managers to ensure that all investment vehicles are aligned with achieving net zero emissions in this decade and supporting climate resilience<br><br>Asset Managers<br><br>• Asset Managers further increase investments aligned with achieving net zero emissions in this decade and supporting climate resilience, including in emerging markets and developing countries |

Global Climate Action
United Nations Climate Change
Marrakech Partnership

| | By 2021 | By 2025 | By 2030 | By 2040 |
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| *Investors*<br>(3/5) | • Asset Managers commit to implement TCFD recommendations, including by assessing climate-related physical, transition and liability risks across their portfolio and undertaking scenario analysis to illuminate pathways to net zero/1.5C alignment<br>• Asset Managers publicly support phase-out of direct and indirect fossil fuel subsidies as well as adoption of carbon pricing and mechanisms to incorporate the Social Cost of Carbon in government decision-making<br>• Asset Managers engage asset owner clients to commit to net zero emissions by the 2040s<br>• Asset Managers challenge their investment consultants to improve the breadth and depth of their advice to clients on the risks of climate change as well as opportunities presented by climate solutions for mitigation and resilience<br>**Financing Transition**<br>Asset Owners<br>• Asset Owners increase investments in corporate-issued certified "green" or "climate" bonds where proceeds are to be used for purposes aligned with achieving net zero emissions by the 2040s and/or promoting resilience to climate impacts | toward achieving net zero emissions by the 2040s<br>• Overwhelming majority of asset owner clients are committed to net zero emissions by the 2040s<br>**Financing Transition**<br>Asset Owners<br>• Asset Owners increase investments aligned with achieving net zero emissions by the 2040s and promoting climate resilience, including via corporate bonds<br>• With the benefit of de-risking mechanisms including blended finance opportunities, asset owners materially increase investments in emerging markets and developing countries in line with achieving net zero emissions by the 2040s and supporting climate resilience<br>• Asset Owners call on Asset Managers to provide a broader range of investment vehicles aligned with achieving net zero emissions by the 2040s and supporting climate resilience<br>Asset Managers<br>• Asset Managers increase investments aligned with achieving net zero emissions by the 2040s and promoting | investment vehicles aligned with achieving net zero emissions by the 2040s and supporting climate resilience<br>Asset Managers<br>• Asset Managers continue to increase investments aligned with achieving net zero emissions by the 2040s and promoting climate resilience, including via corporate bonds<br>• Asset Managers materially increase investments in emerging markets and developing countries in line with achieving net zero emissions by the 2040s and supporting climate resilience<br>• Asset Managers further expand offerings of investment vehicles aligned with achieving net zero emissions by the 2040s and supporting climate resilience | • All offerings of investment vehicles are aligned with achieving net zero emissions in this decade and supporting climate resilience |

| | By 2021 | By 2025 | By 2030 | By 2040 |
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| *Investors*<br><br>(4/5) | • Asset Owners materially scale investment in climate solutions (e.g., renewable energy, green hydrogen, climate-resilient infrastructure) including in developing countries and emerging markets – e.g., via blended finance opportunities that meet risk tolerances<br><br>• Asset Owners call on Asset Managers to provide investment vehicles aligned with achieving net zero emissions by the 2040s and meeting asset owners' fiduciary risk/return requirements<br><br>• Sign The Investor Agenda 2021 Global Investor Statement calling on governments to end fossil fuel subsidies and investors to take action in line with The Investor Agenda Climate Action Plan.<br><br>Asset Managers<br><br>• Asset Managers increase investments in corporate-issued certified "green" or "climate" bonds where proceeds are to be used for purposes aligned with achieving net zero emissions by the 2040s and/or promoting resilience to climate impacts<br><br>• Asset Managers materially scale investment in climate solutions (e.g., renewable energy, green hydrogen, climate-resilient infrastructure) including in developing countries and emerging markets – e.g., via blended | climate resilience, including via corporate bonds<br><br>• With the benefit of de-risking mechanisms including blended finance opportunities, Asset Managers materially increase investments in emerging markets and developing countries in line with achieving net zero emissions by the 2040s and supporting climate resilience<br><br>• Asset Managers expand offerings of investment vehicles aligned with achieving net zero emissions by the 2040s and supporting climate resilience | | |

| | By 2021 | By 2025 | By 2030 | By 2040 |
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| *Investors*<br>(5/5) | finance opportunities that meet risk tolerances<br>• Asset Managers launch new investment vehicles aligned with achieving net zero emissions by the 2040s and meeting institutional investors' fiduciary risk/return requirements<br>• Sign The Investor Agenda 2021 Global Investor Statement calling on governments to end fossil fuel subsidies and investors to take action in line with The Investor Agenda Climate Action Plan. | | | |

| | By 2021 | By 2025 | By 2030 | By 2040 |
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| *Insurance and Underwriting* (1/2) | **Transitioning Finance**<br>• Insurers call on investee and insured companies to fully implement TCFD recommendations, including by assessing the costs of climate-related physical, transition and liability risks, implementing climate-competent governance, and undertaking scenario analysis to illuminate transition pathways to net zero/1.5C alignment and avoidance of stranded assets<br>• Insurers call on investee and insured corporations to adopt internal carbon pricing and factor it into CapEx plans as well as procurement policies and practices (e.g., energy supply, raw materials, etc.)<br>• Insurers commit to implement TCFD recommendations, including by assessing climate-related physical, transition and liability risks across their investment and underwriting portfolios and undertaking scenario analysis to illuminate pathways to net zero/1.5C alignment<br>• Taking into account material climate-related risk exposures, Insurers commit to align underwriting with achieving net zero emissions by the 2040s, including by adopting and ratcheting exclusion policies for high carbon infrastructure and products<br>• Insurers publicly support phase-out of direct and indirect fossil fuel subsidies | **Transitioning Finance**<br>• Insurers continue to engage investee/insured companies to ensure robustness and transparency of TCFD disclosures<br>• For investee companies that do not fully implement TCFD recommendations and/or adopt internal carbon pricing to support decarbonization plans in line with achieving net zero emissions by the 2040s, Insurers escalate engagement tactics to close these gaps<br>• Insurers fully implement TCFD recommendations, including by assessing climate-related physical, transition and liability risks across their portfolio, have established climate-competent governance, and regularly undertake scenario analysis to illuminate transition pathways to net zero/1.5C alignment<br>• Insurers update and publicly disclose plans for continuing to align underwriting with achievement of net zero emissions by the 2040s and promoting climate resilience, including by ratcheting exclusion policies for high-carbon sectors and publicly indicating intentions and timelines for retreating from markets overly exposed to climate-related risks<br>• Fossil fuel subsidies have been phased out. Insurers support ratchets to | **Transitioning Finance**<br>• Insurers continue to engage investee/insured companies to ensure annual assessment and reporting of all material climate-related risks<br>• Where necessary, insurers escalate engagement with investee companies that do not adequately assess and disclosure climate-related risks and/or that have not adopted climate-competent governance<br>• Insurers regularly undertake climate risk analysis and disclosure, including by assessing climate-related physical, transition and liability risks across their portfolio and updating scenario analysis to illuminate pathways for aligning investment and underwriting portfolios with net zero emissions by the 2040s<br>• Insurers continue to implement plans for aligning underwriting with achieving net zero emissions by the 2040s and promoting climate resilience, and publicly update plans for exiting climate-exposed markets<br>• 50% reduction in portfolio emissions achieved<br>• Insurers support ratchets to carbon pricing policies and Social Cost of Carbon mechanisms as needed to promote alignment with net zero | **Transitioning Finance**<br>• Insurers' underwriting and investment portfolios are aligned with achieving net zero emissions in this decade and with supporting resilience to climate-related impacts<br>• Insurers continue to engage investee companies to ensure robust climate risk assessment, disclosure and accounting<br>• Insurers support further ratchets to carbon pricing policies and Social Cost of Carbon mechanisms as needed to ensure achievement of net zero emissions in this decade and to scale investment in climate resilience<br><br>**Financing Transition**<br>• Insurers further increase investments aligned with achieving net zero emissions in this decade and supporting climate resilience, including in emerging markets and developing countries<br>• All underwriting products are aligned with achieving net zero emissions in this decade and supporting climate resilience |

| | By 2021 | By 2025 | By 2030 | By 2040 |
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| *Insurance and Underwriting*<br>(2/2) | as well as adoption of carbon pricing and mechanisms to incorporate the Social Cost of Carbon in government decision-making<br><br>**Financing Transition**<br>• Insurers increase investments in corporate-issued certified “green” or “climate” bonds where proceeds are to be used for purposes aligned with achieving net zero emissions by the 2040s and/or promoting resilience to climate impacts<br>• Insurers materially scale investment in climate solutions (e.g., renewable energy, green hydrogen, climate-resilient infrastructure) including in developing countries and emerging markets – e.g., via blended finance opportunities that meet risk tolerances<br>• Insurers increase range of underwriting products for climate solutions including both mitigation (e.g., renewable energy, storage, green hydrogen) and climate resilience (e.g., coral reefs, forests, hardened infrastructure) | carbon pricing mechanisms and Social Cost of Carbon in line with accelerating the pace of progress toward achieving net zero emissions by the 2040s<br><br>**Financing Transition**<br>• Insurers scale investments aligned with achieving net zero emissions by the 2040s and decrease portfolio exposure to climate-related risks<br>• Insurers continue to increase underwriting product offerings for climate solutions<br>• Insurers curtail underwriting for companies and projects with outsized climate-related risk exposures and that are not aligned with achieving net zero emissions by the 2040s | emissions by the 2040s and to scale investment in climate resilience<br><br>**Financing Transition**<br>• Insurers continue to increase investments aligned with achieving net zero emissions by the 2040s and promoting climate resilience, including via fixed income/corporate bond and infrastructure asset classes<br>• Insurers materially increase investments in emerging markets and developing countries in line with achieving net zero emissions by the 2040s and supporting climate resilience<br>• Insurers further expand underwriting product offerings for climate solutions<br>• Insurers continue to curtail underwriting where climate-related risk exposures are disproportionately high and not in line with achieving net zero emissions by the 2040s and promoting climate resilience | |

| | By 2021 | By 2025 | By 2030 | By 2040 |
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| *IFIs, DFIs & Innovation Funding*<br>(1/3) | **Transitioning Finance**<br>• IFIs including IMF continue to assess and publish updated analysis regarding direct and indirect fossil fuel subsidies<br>• IFIs and DFIs call on governments to phase out all fossil fuel subsidies and adopt carbon pricing policies, decisionmaking mechanisms that incorporate the Social Cost of Carbon, mandatory climate risk accounting and mandatory climate risk disclosure<br>• IFIs, DFIs and national government innovation funding programs commit to ensure all investments either affirmatively support achieving net zero emissions by the 2040s and promote climate resilience, particularly for most vulnerable groups and communities, or at minimum do no harm toward achieving these objectives<br>• IFIs, DFIs and national government innovation funding programs commit to annually asses and disclose climate-related risks across their investment portfolios<br>• IFIs and DFIs assess scale of investment opportunity, range of finance vehicles, and value of reduced climate-related risks in connection with nature-based solutions, with particular focus on addressing most | **Transitioning Finance**<br>• IFIs such as IMF have tracked and publicly reported on phase out of fossil fuel subsidies<br>• Carbon pricing policies and policies requiring mandatory climate risk accounting and disclosure are in place across the G20 and beyond<br>• Investments by IFIs, DFIs and national government innovation funding programs are aligned with achieving net zero emissions by the 2040s and promoting climate resilience<br>• IFIs, DFIs and national government innovation funding programs annually assess and disclose climate-related risks across their investment portfolios<br><br>**Financing Transition**<br>• IFIs, DFIs and national government innovation funding programs continue to scale investments aligned with achieving net zero emissions by the 2040s and promoting climate resilience<br>• IFIs and DFIs principally deploy capital via blended finance instruments that maximally leverage private finance for investments aligned with achieving net zero emissions by the 2040s and supporting climate resilience, | **Transitioning Finance**<br>• IFIs track and publish analysis of the alignment of capital flows with achieving net zero emissions by the 2040s and supporting climate resilience<br>• IFIs and DFIs call on governments to ratchet carbon pricing mechanisms in line with what is needed to catalyze shifts in capital flows to achieve net zero emissions by the 2040s and support climate resilience<br>• IFIs, DFIs and national government innovation funding programs are aligned with achieving net zero emissions by the 2040s and supporting climate resilience<br>• IFIs, DFIs and national government innovation funding programs continue to annually assess and disclose climate-related risks across their investment portfolios<br><br>**Financing Transition**<br>• All IFI, DFI and national government innovation funding programs prioritize investments aligned with achieving net zero emissions by the 2040s and promoting climate resilience, and other investments do no harm toward achieving these objectives | **Transitioning Finance**<br>• IFIs continue to track and publish alignment of capital flows with achieving net zero emissions in this decade and supporting climate resilience<br>• IFIs and DFIs call on governments to continue to ratchet carbon pricing mechanisms in line with what is needed to achieve net zero emissions in this decade and support climate resilience<br>• All IFI, DFI and national government innovation funding programs are aligned with achieving net zero emissions in this decade and supporting climate resilience<br>• IFIs, DFIs and national government innovation funding programs continue to annually assess and disclose climate-related risks across investment portfolios<br><br>**Financing Transition**<br>• IFI, DFI and national government innovation funding program investments are aligned with achieving net zero emissions in this decade and promoting climate resilience |

| | By 2021 | By 2025 | By 2030 | By 2040 |
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| *IFIs, DFIs & Innovation Funding*<br>(2/3) | vulnerable groups' and communities' needs<br><br>**Financing Transition**<br>• Taking into account the value of climate-related risks, IFIs, DFIs and national government innovation funding programs scale investments aligned with achieving net zero emissions by the 2040s and promoting climate resilience, particularly for the most vulnerable groups and communities<br>• IFIs and DFIs commit to develop and deploy new blended finance vehicles designed to drive in private finance (i.e., meeting institutional investors' regulatory risk/return requirements) for investments aligned with achieving net zero emissions by the 2040s and/or promoting climate resilience, with a particular focus on the most vulnerable groups and communities<br>• IFIs and DFIs aim for maximum leverage of private capital in financing climate solutions<br>• Innovation funding programs prioritize net zero-aligned opportunities, with an emphasis on net zero emissions solutions for hard-to-abate sectors<br>• All public finance institutions commit to end finance for coal or any new fossil fuel infrastructure | including via investment in nature-based solutions<br>• Government innovation funding programs scale investment in net zero emissions-aligned opportunities, with prioritization of solutions for emissions reductions in hard-to-abate sectors<br>• Public finance for coal and/or any new fossil fuel infrastructure has ended | • IFIs and DFIs achieve an average of 5x leverage of private capital for investments in climate solutions that support net zero and climate resilience pathways<br>• Government innovation funding programs have demonstrably boosted commercialization and scale-up of cross-sectoral climate solutions such as green hydrogen, and are gearing up to support innovation and commercialization vis-à-vis hard-to-abate residual emissions | • IFIs and DFIs continue to maximally leverage private capital for investments in climate solutions<br>• Government innovation funding programs have demonstrably boosted – and continue to prioritize – development and commercialization of solutions for addressing residual emissions as well as negative emission technologies |

| | By 2021 | By 2025 | By 2030 | By 2040 |
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| *IFIs, DFIs & Innovation Funding*<br>(3/3) | • IFIs and DFIs take into account COVID-related economic impacts to expand debt relief (e.g., via extended SDRs, DSSI, etc.) so as to create fiscal space for developing countries and emerging markets to invest in climate solutions that support net zero and climate resilience pathways | | | |

| | By 2021 | By 2025 | By 2030 | By 2040 |
|---|---|---|---|---|
| | **Transitioning Finance**<br>• All financial service providers and advisers commit to align with net zero emissions by the 2040s<br>• Investment consultants factor climate-related risks into their products, strategies, business models and advice<br>• Credit rating agencies increasingly integrate value of climate-related risks into credit rating methodologies<br>• Stock exchanges commit to require TCFD-aligned climate risk assessment and disclosure as a condition of listing<br>• Index providers hone and enhance low- and zero-carbon indexes to fully take into account the risks and costs of GHG emissions and of avoided emissions<br>• Recognizing the value of climate-related risks, index providers develop new indexes including ones related to nature-based solutions<br>• Accounting firms commit to build capacity across all accountant employees with regard to assessing climate-related risks in keeping with IASB guidance<br>• Data providers serving the financial sector commit to bridge data gaps related to financed emissions<br>• Auditing firms commit to build capacity across all auditor employees | **Transitioning Finance**<br>• Investment consultants' products, strategies. business models and advice are aligned with achieving net zero emissions by the 2040s, including a 50% reduction in GHG emissions by 2030<br>• Credit ratings take into account the value of climate-related risks, resulting in improved ratings for governments and companies aligned with achieving net zero emissions by the 2040s and taking material steps to increase climate resilience<br>• All major stock exchanges require TCFD-aligned climate risk assessment and disclosure as a condition of listing<br>• Index providers expand indexes aligned with achieving net zero emissions by the 2040s and/or supporting climate resilience<br>• Accountants are trained to assess climate-related risks consistent with IFRS Sustainability Standards<br>• Data providers serving the financial sector have closed data gaps related to financed emissions, including Scope 3 emissions of investees<br>• Auditing firms regularly assess accuracy and completeness of financial statements as to material climate-related financial risks | **Transitioning Finance**<br>• Investment consultants' products, strategies business models and advice are aligned with achieving net zero emissions by the 2040s and building climate resilience<br>• Credit ratings increasingly incorporate favorable consideration for governments and companies aligned with achieving net zero emissions and increasing climate resilience<br>• Stock exchanges monitor listed companies' climate risk disclosures and move to de-list any company that fails to file them<br>• Index providers continue to expand and hone indexes aligned with achieving net zero emissions by the 2040s and/or supporting climate resilience<br>• Accountants regularly assess climate-related risks<br>• Data providers continue to improve the quality of data on financed emissions, including Scope 3<br>• Auditing firms continue to regularly assess accuracy and completeness of financial statements as to material climate-related financial risks<br><br>**Financing Transition** | **Transitioning Finance**<br>• All financial service providers and advisers have fully aligned their products, services. business models and advice with achieving net zero emissions in this decade<br>• Stock exchanges have de-listed any companies that are not committed to achieving net zero emissions in this decade<br>• The overwhelming majority of indexes are aligned with achieving net zero emissions in this decade and/or supporting climate resilience<br>• Data providers and auditors continue to play an important role as investors and regulators work to track performance toward achieving net zero emissions in this decade<br><br>**Financing Transition**<br>• Investment consultants' products and strategies are all in line with achieving net zero emissions in this decade and supporting climate resilience<br>• Cost of capital continues to be lower for entities and investments aligned with achieving net zero emissions in this decade |

| | By 2021 | By 2025 | By 2030 | By 2040 |
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| | with regard to assessing accuracy and completeness of financial statements as to material climate-related financial risks<br><br>**Financing Transition**<br><br>• Investment consultants begin to materially recalibrate investment strategies and products to reduce climate-related risk exposures<br>• Credit rating agencies attach carbon-avoidance premium to investments in climate solutions and penalties for high-carbon investments | **Financing Transition**<br><br>• Investment consultants' strategies and products are aligned with achieving net zero emissions by the 2040s and increasing climate resilience (e.g., for infrastructure asset class, priority is on investment in climate solutions such as renewable energy and net zero emissions buildings)<br>• Cost of capital is lower for governments and companies actively moving into alignment with achieving net zero emissions by the 2040s and improving climate resilience | • Investment consultants continue to align strategies and products with achieving net zero emissions by the 2040s and increasing climate resilience<br>• Cost of capital is lower for governments and companies on track to achieve net zero emissions by the 2040s with improved climate resilience, and the cost of capital is prohibitively high for any new investment in carbon-intensive infrastructure | |

Impact 2

# Tackling the Tragedy of the Horizon and Short-Termism

TRANSITIONING FINANCE

MITIGATION / ADAPTATION

**Nexus**

Energy | Human settlements | Land use

7 AFFORDABLE AND CLEAN ENERGY | 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE | 10 REDUCED INEQUALITIES | 11 SUSTAINABLE CITIES AND COMMUNITIES | 12 RESPONSIBLE CONSUMPTION AND PRODUCTION

| | By 2021 | By 2025 | By 2030 | By 2040 |
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| **Policymakers**<br>(1/3) | • Review financial system regulation to embed principle of alignment with Article 2.1.c of the Paris Agreement with the aim of making private financial flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development. Agree non-partisan consensus to ensure changes endure changes of administration.<br>• Finance ministries join the Coalition of Finance Ministers for Climate Action and Central Banks and supervisors join the Network for Greening the Financial System. Those who already participate use influence to encourage others to join. Finance ministers use budgetary responsibility to require a whole of government response to | • Policies have been implemented to incentivize private finance alignment with Article 2.1.c.<br>• Mass participation in CFMCA and NGFS and embedding of recommendations and best practice.<br>• Mass mandating of climate-related disclosure in line with the TCFD recommendations<br>• Implement regulatory and policy measures to ensure financial and non-financial companies set net-zero targets and transition plans.<br>• Guidance provided for climate transition plans with actionable and consistent short, medium, and long term measures. | • Finance flows aligned with low greenhouse gas emissions and climate-resilient development.<br>• Universal participation in CFMCA and NGFS.<br>• Mass adoption of regulatory and policy measures to ensure financial and non-financial companies set net-zero targets and transition plans. Regulators now taking enforcement action against laggards.<br>• Mass disclosure across all markets and private entities. | |

| | By 2021 | By 2025 | By 2030 | By 2040 |
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| **Policymakers**<br>(2/3) | climate change with climate, resilience and sustainable development factored into all policy initiatives.<br>• Lengthen investment and strategic planning horizons of market participants and non-financial corporates by indicating expectation of net zero targets with measurable interim steps. Mandating disclosure in line with the Task-Force on Climate-related Financial Disclosure recommendations, examine policies to ensure financial and non-financial companies set net-zero targets and transition plans.<br>• Provide regulatory clarity on the long-term nature of fiduciary duties, including the impact of decisions on people and planet as part of "best interests", consideration of impact of investments as well as impact of sustainability factors on returns and valuations, that the needs of beneficiaries with short and long-term horizons must be balanced, and ensuring that there is no confusion or conflict between net zero and fiduciary duty<br>• Require senior management responsibility for net zero and interim targets with link to incentives<br>• Collaborate to set ambitious global targets for market participants on disclosure and consequent actions | • Develop "safe harbor" guidance to provide clarity on a series of governance and disclosure principles for fiduciaries that align to long term sustainable development.<br>• Put in place regulatory measures to require full disclosure of climate and sustainability risks and metrics across scopes 1, 2 and 3 emissions. | | |

| | By 2021 | By 2025 | By 2030 | By 2040 |
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| **Policymakers**<br>(3/3) | based on risk management and measurable outcomes<br>• Use the obligation to promote market integrity as basis for collaboration with market participants and correction of market failures, engaging with central government where necessary to correct failures through policy measures not available to regulators (e.g. fiscal and real economy measures and incentives, internalizing externalities and overcoming information asymmetries)<br>• Collaboration with users/consumers, corporates and investors on engagement, education, research and implementation of long demand side initiatives on consumer behavioral change.<br>• Stress test financial institutions and non-financial corporates consistent with NGFS 1.5 degree scenarios. | | | |
| **Civil Society**<br>(1/2) | • Provide mass consumer education on the links between the financial system and citizens' daily lives including the impact of financial decisions on sustainability and climate outcomes.<br>• Encourage consumer engagement with financial market participants to promote sustainability preferences in management of savings, investments and insurance.<br>• Provide research, data and facts to policymakers, market participants and | • Continue advocacy for sustainable consumption and finance choices.<br>• Push high-emitting sectors to develop transition plans with a long-term lens, utilizing and coordinating shareholder pressure<br>• Set up multi-stakeholder awareness programs to promote wider public engagement as stakeholders in the investment process to push for net-zero commitments and action and to hold market participants to account | • Call out and push laggards to align their net-zero targets and action with the Paris Agreement<br>• The public is engaged with financial institutions, pushing for ever increasing action, supporting net-zero commitments, and providing oversight of delivery on promises. | |

| | By 2021 | By 2025 | By 2030 | By 2040 |
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| **Civil Society** (2/2) | citizens to encourage informed decision making.<br>• Feed into and challenge net-zero initiatives, pushing for ambitious and comprehensive long-term action, and hold these initiatives to account.<br>• Continue to influence governments to mandate policy and regulatory action in support of net-zero and interim targets, bridging divides across political cycles and calling for cross-party consistent and decisive action to provide consistent market signals to drive changes in capital flows and practice.<br>• Supporting cross-sectoral collaboration to mobilize net-zero targets and action planning, ensuring that all market participants are engaged<br>• Oppose investments that lock-in high-emitting activities<br>• Collaboration with users/consumers, corporates and investors on engagement, education, research and implementation of long demand side initiatives on consumer behavioral change. | for delivery on commitments and raising of ambition. | | |
| **Local Government Actors** (1/2) | • Collaborating with national governments to feed into revised Nationally Determined Contributions, incorporating local governments to | • Draw up and start to implement net zero transition plans.<br>• Revise planning laws to prioritize low carbon, resilient development and alignment with net zero transition. | | • Implementing plans to deal with residual emissions, after all technically and economically feasible mitigation opportunities have been realized |

| | By 2021 | By 2025 | By 2030 | By 2040 |
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| **Local Government Actors**<br>(2/2) | take into account urban developments at subnational level.<br>• Leverage post-COVID stimulus and recovery packages in line with principles to build back in alignment with net-zero plans and project pipelines and prioritize low carbon, long-term resilience over short term, carbon intensive projects.<br>• Planning and implementing zero-carbon, resilient infrastructure now that balances short-term needs without locking into large long-term emissions.<br>• Utilizing procurement power to avoid carbon intensive purchases, and to signal long-term demand that supports investment in climate-friendly technology (e.g. purchase-power agreements for renewable energy)<br>• Designing and aligning local climate action plans with national climate priorities to draw political support.<br>• Developing strong long-term capital plans with project pipelines that overcome interruptions due to changes in administration<br>• Advocate for national authorities to support net-zero transitions at sub-national level, by expanding funding/borrowing options and operational structures. | • Cities to disclose and report on their emissions reduction targets and actions including prioritizing real-term reductions over offsets.<br>• Setting Paris-aligned science-based targets and climate action plans with bipartisan buy-in and commitments to action irrespective of electoral cycles<br>• Collaborate with private financial sector to utilize public funds only where no private appetite for investment or to crowd in private investments or de-risk to allow private funding. Ensure that planned climate mitigation and adaptation measures have sufficient financial backing<br>• Conduct international outreach, joining climate initiatives for sub-national authorities that facilitate knowledge exchange, access to technical tools and support the formation of coalitions to coordinate net-zero investments at scale. | | |

| | By 2021 | By 2025 | By 2030 | By 2040 |
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| | • Align municipal and sub-national investments and pension plans with net zero.<br>• Align to national policies and regulations. | | | |
| **Corporates**<br>(1/2) | • Set net zero targets, with interim Science Based targets. Targets should cover the entire scope of material emissions. Disclosure of plans for how they will reach targets. Ensure ambition ratchet tied to senior management remuneration. Report annually on progress.<br>• Embrace sustainability in corporate reporting, including through the principles to be developed by the IFRS Sustainability Standards Board. Engage with the IFRS to produce standards that are practical and ambitious.<br>• Use net zero targets to lengthen strategic planning horizon.<br>• Incorporate scenario analysis consistent with NGFS 1.5 degree scenarios into strategic planning framework, recognizing that the net zero transition is unlikely to be accurately informed by historic risk and asset allocation models.<br>• TCFD disclosure and transition planning put to shareholder vote.<br>• Use procurement power and influence to drive net zero alignment and | • TCFD-aligned ESG disclosures from listed companies<br>• Larger corporates take the lead and demonstrate best practice in disclosure, supporting development of a framework for climate disclosure from SMEs<br>• Alignment of Capex, OpEx, and remuneration of chief executives to emissions reductions and achievement of interim climate targets<br>• Mainstream climate risk considerations across planning, investment, operations and management decisions<br>• Paris-aligned science-based targets are now expected of companies by investors and consumers alike<br>• Corporates now demonstrating climate risk and disclosure leadership in private as well as public markets, with long-term, climate and resilience-aware investment of retained profit as well as equity and debt. | • TCFD-aligned disclosure from all listed companies<br>• Standardized climate disclosure from SMEs<br>• Climate-aligned scenario planning and disclosure from all companies creating a whole-of-economy picture of where transition is well under way and what the gaps and hard to transition sectors are for policymakers and investors to utilize in investment, strategic planning and policy work.<br>• Standardized frameworks and external verification of science-based targets and plans to reach them<br>• Design and develop infrastructure in transition sectors in ways that ensure resilient livelihoods and community/ workers' rights and voices are designed in from the start.<br>• Actively demonstrate integration of just transition and regenerative outcomes such as circular material flows, community resilience building, and ecosystem restoration. | • - Climate risk considerations are an integral part of business, investment, operations and management decisions.<br>• Just transition and regenerative outcomes such as circular material flows, community resilience building, ecosystem restoration now embedded. |

| | By 2021 | By 2025 | By 2030 | By 2040 |
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| **Corporates**<br>(2/2) | sustainability throughout the supply chain including environmental and social (human rights) due diligence.<br>• Collaboration with investors on transition planning and long-term investment horizons and with policymakers where market failures require correction to ensure market integrity and fair competition.<br>• Collaboration with shareholders to prioritize long term transition over short term targets, setting out clear and specific plans creating confidence in a long term approach that provides space for investment in the transition over short term shareholder profits.<br>• Ensure sufficient expertise in senior management positions on climate and sustainability issues, with regular training for board members to enable the holding to account of third parties as well as establishing a climate-aware corporate culture and strategy.<br>• Join relevant Race to Zero initiative and align whole of business activities with net zero commitments, including policy activity and lobbying.<br>• Collaboration with users/consumers, corporates and investors on engagement, education, research and implementation of long demand side initiatives on consumer behavioral change. | • Work with local governments, finding opportunities to meet their long-term net-zero business and service needs.<br>• Develop organizational capacity to manage current and projected climate risks across entire operational chain<br>• Implement and transparently report on strong standards for addressing human rights, labor rights, community rights and bio-diversity issues across the value chain<br>• Integrate strategies for just transition and regenerative outcomes such as circular material flows, community resilience building, ecosystem restoration into infrastructure development. Identify opportunities for the re-training of workers to redeploy them in net zero focused work rather than workforce reductions.<br>• Consumer behavior and increased public awareness and scrutiny of corporate climate and sustainability action now driving corporates to greater ambition to retain business and attract and retain employee talent. | | |

| | By 2021 | By 2025 | By 2030 | By 2040 |
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| **Financial Institutions and Actors**<br>(1/2) | All actors not covered specifically below:<br>• Join the relevant net zero alliance under the Glasgow Finance Alliance for Net Zero, as part of the Race to Zero. If no alliance for relevant grouping within the financial system, engage to create one.<br>• Set clear expectations for investee companies and communicate them clearly, including TCFD, transition plans, management incentives, absolute emission cuts.<br>• Use TCFD risk disclosure, scenario analysis consistent with NGFS 1.5 degree scenarios and a transition plan for transition risk mitigation as a basis for science-based net zero commitments covering scopes 1-3. Embed interim measures with outcome-focused reporting and link to management incentives for delivery.<br>• Engage with policymakers to demand real economy policy changes and market signals aligned to net zero ambition with near-term focus on reduction of absolute emissions.<br>• Provide detailed decision-useful reporting of all material risks.<br>• Align whole of business activities with net zero commitments, including policy activity and lobbying. | • Whole financial system covered by net zero alliances with ongoing ambition ratchets.<br>• TCFD and transition plans mandatory across financial institutions and entity-level. Product level TCFD reporting to clients under way to allow better-informed decision making.<br>• UN-sponsored market initiatives (UNPRI, PSI, PRB) embed net zero and SDG focus as a requirement for continued participation. | | |

| | By 2021 | By 2025 | By 2030 | By 2040 |
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| **Financial Institutions and Actors** (2/2) | • Build climate and sustainability into stewardship activities with companies and policymakers. Where market failures are identified, engage with policymakers and regulators for reform to promote market integrity.<br>• Investors and financial institutions request transition plans from corporates, including evidence of both short and medium/long term target setting, integration into corporate strategy, and alignment with management incentives. | | | |
| *Central Banks* (1/2) | • Join and fully participate in NGFS, including using NGFS reference scenarios.<br>• Stress test supervised entities using NGFS scenarios and publish the results and associated regulatory guidance.<br>• Include net zero considerations into central bank portfolios, make and publish a plan for operational alignment with net zero.<br>• Publish own TCFD disclosures, including portfolio alignment metrics and a transition plan to align with 1.5 degrees and net zero.<br>• If necessary, request clarification of mandate to specifically include both financial risks of climate change to stability and the climate change risks and impacts of the financial system | • All central banks now participants in NGFS and NGFS reference scenarios universally adopted.<br>• Develop a net-zero roadmap including long-term expectations and near-term actions. Including the promotion of liaison and coordination between central banks, supervisors and policymakers on net-zero.<br>• Make net-zero a core element of supervisory practice at micro and macro levels, aligning supervisory expectations and prudential instruments with net-zero.<br>• Requiring all regulated financial institutions to submit net-zero transition plans, as well as addressing climate risks in regulatory ratios.<br>• Set out 1.5 degree-aligned scenarios consistent with NGFS 1.5 degree | | |

|  | By 2021 | By 2025 | By 2030 | By 2040 |
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| *Central Banks*<br>(2/2) | (i.e. both exogenous and endogenous systemic risks).<br>• Integrate climate factors into collateral management, e.g. requiring TCFD disclosures or effective net zero transition plans in eligibility or reflecting in haircuts.<br>• Incorporate climate factors into portfolio management, e.g. reducing exposures to high-carbon sectors | scenarios and an expectation that firms use them and implement plans to transition towards 1.5 degree alignment.<br>• Integrate climate change into monetary frameworks and models to adequately account for the impacts of climate change on macroeconomic outcomes.<br>• Align central bank instruments and policy portfolios with net zero.<br>• Sustainable and responsible investment practices for central banks' portfolios should include a net-zero target and central banks should each publish a transition plan to achieve this.<br>• Central banks should explore the implications of net-zero for jobs and livelihoods to mitigate potential downside sectoral and regional consequences.<br>• Net-zero needs to be incorporated into key international financial and regulatory frameworks and processes. There is also potential for partnerships with multilateral development banks in developing and emerging economies. |  |  |
| *Banking and Lending*<br>(1/2) | • Join Net Zero Banking Alliance and Principles for Responsible Banking. | • Adapt investment strategies in renewable energy and other clean infrastructure to ensure that adverse impacts are minimized throughout value chains, inc. land rights, human | • Develop and operate clear strategies for investing in transition sectors in ways that ensure resilient livelihoods | • Finance is now only provided to transition infrastructure projects and companies that actively demonstrate just transition and regenerative outcomes such as circular material |

| | By 2021 | By 2025 | By 2030 | By 2040 |
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| *Banking and Lending* (2/2) | • Build internal capacity on understanding and engaging with sustainability issues in BAU.<br>• Make net zero aligned commitments on underwriting activities as well as lending.<br>• Increase understanding of the wider ESG risks of renewable energy value chains and other positive sectors driving the carbon transition.<br>• Proactively engage with seekers of finance to understand how they are managing such ESG risks.<br>• Develop tilted lending and underwriting policies to offer preferential rates to companies making TCFD-aligned disclosures with a credible transition plan and science-based targets on the basis of better material risk disclosure. Similar principles applied to those demonstrating measurable positive sustainability impact.<br>• Utilize sustainability-linked lending and refinancing criteria across business.<br>• Embed IEA 1.5 degree pathway into lending and underwriting polices to minimize stranded asset risks. | and labor rights in rare mineral extraction, worker rights in manufacture and deployment, and end-of-life material management.<br>• Provide favorable terms to projects and companies that actively demonstrate just transition and regenerative outcomes such as circular material flows, community resilience building, ecosystem restoration including, for example, subnational projects.<br>• Tilted lending and underwiring now widely embedded, leading to better risk-adjusted activity and better corporate disclosure.<br>• Sustainability-linked loans now mainstream.<br>• Ensure finance is only provided to transition infrastructure projects and companies that actively demonstrate integration of just transition and regenerative outcomes such as circular material flows, community resilience building, ecosystem restoration. | and community/workers' rights are designed in from the start.<br>• Finance is now only provided to transition infrastructure projects and companies that actively demonstrate integration of just transition and regenerative outcomes such as circular material flows, community resilience building, ecosystem restoration. | flows, community resilience building, ecosystem restoration. |
| *Investment* (1/3) | Asset owners<br>• Leaders disclose risks using TCFD framework and embedding scenario | Asset owners<br>• TCFD reporting and net zero scenario analysis mainstream. Transition plans | Asset owners<br>• TCFD, transition planning, net zero, and long termism now represent | Asset owners<br>• Asset owners' strategies now looking out beyond 2050 due to need to |

| | By 2021 | By 2025 | By 2030 | By 2040 |
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| *Investment*<br>(2/3) | analysis consistent with NGFS 1.5 degree scenarios (including net zero scenarios)<br>• Leaders also disclose transition plan to address the identified risks including setting net zero target<br>• Through joining the Net Zero Asset Owner Alliance, commit to net zero 2050 goal, with interim 2050 goal, with interim decarbonization targets for 2025.<br>• Leading large asset owners commit to science-based net zero target by at least 2050, including interim targets and ambition ratchet over time, link to senior management incentives.<br>• Embed net zero target into mandates given to asset managers, including incentives linked to decarbonization, engagement, as well as financial performance and report against outcomes in each area<br>• Disclose proportion of portfolios with net zero targets, develop credible disclosures on portfolio warming potential.<br>• Offer more products and solutions to clients<br>• Seek to understand member and beneficiary views into net zero commitments and communicate progress to them.<br>• Recognize duty to future members and beneficiaries as well as existing in | widely disclosed with annual reporting against targets and interim steps.<br>• Majority of asset owners, including small and medium sized schemes and providers commit to net zero target by at least 2050, including interim targets and ambition ratchet over time, link to senior management incentives in line with Net Zero Asset Owner or Paris Aligned Asset Owner methodology.<br>• Portfolio warming potential and net zero alignment methodologies agreed and in widespread use.<br>• Member and beneficiary views on net zero well understood and embedded into investment approaches. Members and beneficiaries are driving raised ambition in response to climate crisis.<br>• Fiduciary duties widely understood as requiring balance of future and existing beneficiaries, embedding long term approach to avoid unsustainable investment approaches.<br>• Net zero aligned benchmarks increasingly adopted.<br>• Climate solution investments and products increasingly mainstream as winners from the transition emerge and capital is being deployed at scale as breakthroughs occur.<br>• Asset owners set out their investment appetite for long-term, resilient investment in real assets and | business as usual. Laggard product providers and financial institutions now increasingly losing business to leaders as preferences are acted upon in provider selection.<br>• Asset owners' investment appetites for long term real asset investment is now routinely matched with national and sub-national needs so that capital is deployed where it is most needed. | balance future beneficiary needs with existing ones. Long termism now universally seen as business as usual.<br>• Climate change, just transition, and sustainable development now factored into all asset allocation decisions and mandates. |

| | By 2021 | By 2025 | By 2030 | By 2040 |
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| *Investment*<br><br>(3/3) | fiduciary duties and lengthen investment horizon to consider liabilities to all members and beneficiaries, including those who may be retiring after the date set for your net zero transition<br><br>• Select benchmarks aligned to net zero trajectories<br><br>• Embed net zero target into SAA, for example through use of the Paris Aligned Investment Initiative's Net Zero Investment Framework recommendations relating to Strategic Asset Allocation<br><br>• Set targets for % of "climate solution" investments, in line with the Paris Aligned Investment Initiative's recommendations relating to setting targets for increasing investment in climate solutions<br><br>• Set SLAs and/or specific climate and sustainability performance targets and KPIs for service providers, consultants and advisers.<br><br>• Collaboration with users/consumers, corporates and policy makers on engagement, education, research and implementation of long demand side initiatives on consumer behavioral change.<br><br>• Exclude from mandates investment linked to new exploration of oil and gas, or coal, consistent with the IEA's | infrastructure and this is increasingly matched with country requirements and MDB commitments to allow long-term finance to flow to where it is needed.<br><br>• No new investment into companies without science-based targets to transition to net zero and clear business plan for role in the net zero economy.<br><br>• Set targets for % of "climate solution" investments | | |

| | By 2021 | By 2025 | By 2030 | By 2040 |
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| | 1.5 degree scenario to minimize risk of new stranded assets.<br><br>• Develop forward planning for carbon pricing consistent with NFFS 1.5 degree scenarios, embed into portfolio monitoring and stress testing, and require asset managers to demonstrate aligned assumptions. | | | |
| | Asset managers<br><br>• Set approved, science based, net zero targets with short to medium term interim targets.<br><br>• Through the Net Zero Asset Managers Initiative, asset managers should commit to supporting the goal of net zero greenhouse gas emissions by 2050 or sooner, in line with global efforts to limit warming to 1.5 degrees Celsius; and to supporting investing aligned with net zero emissions by 2050 or sooner.<br><br>• Withhold additional capital to companies which are planning or constructing new thermal coal projects and associated infrastructure (power, mining) or taking forward new exploitation of tar sands or new oil and gas exploration inconsistent with the IEA 1.5 degree pathway.<br><br>• Publish TCFD disclosures, including a transition plan, annually<br><br>• Engage asset owners on embedding net zero targets into mandates and | • Set or continue to review approved, science based, net zero targets with short to medium term interim targets<br><br>• Publish TCFD disclosures, including a climate action plan, annually<br><br>• Review interim targets, with a view to ratcheting up the proportion of assets to be managed in line with the attainment of net zero emissions by 2050 or sooner.<br><br>• Mandates and products aligned to net zero commitments, with associated reporting and disclosures now commonplace, providing clients and end beneficiaries with informed choices, which results in increased flows to net zero aligned products and climate solutions.<br><br>• Scenario analysis consistent with NGFS 1.5 degree scenarios and climate-aware DCF now commonplace in investment process.<br><br>• Engagement and voting increasingly focused on climate issues, with shareholder resolutions regularly | • TCFD disclosure, transition planning, net zero, and long termism now represent business as usual. Laggards increasingly losing business to leaders.<br><br>• Stewardship of investments continues to press for net zero transition alignment with increasing proportions of investments now benefitting from transition. Investor pressure continues with laggards and cooperation and support for investment in transition for hard to abate sectors. Capital is now quick to be deployed into new technologies and solutions and fundamentals are aligning with transition opportunities.<br><br>• Investors continue to monitor the just transition and hold companies to account. | • Climate change, just transition, and sustainable development now factored into all investment decisions and mandates. |

| | By 2021 | By 2025 | By 2030 | By 2040 |
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| | IMAs, with associated interim targets and reporting<br>• Leaders begin to report on decarbonization, engagement and voting, and policy outcomes<br>• Align individual remuneration with net zero targets<br>• Begin to disclose proportion of assets with net zero targets, engage with companies to set and maintain targets and deliver on interim measures<br>• Seek to understand clients' preferences on net zero transition<br>• Develop specific net zero and climate transition solutions for clients<br>• Embed scenario analysis consistent with NGFS 1.5 degree scenarios into investment process<br>• Develop climate-adjusted discounted cash flow analysis (DCF) for corporate valuation.<br>• Use corporate engagement and voting (including through collaborative initiatives like CA100+) to push for net zero alignment in investee companies with time-bound engagement with escalation pathways for high risk activities without transition plans or for management not committing to transition or keeping promises.<br>• Develop forward planning for carbon pricing consistent with NFFS 1.5 | tabled at laggards' AGMs and receiving high levels of support, resulting in action.<br>• Where market failures persist and are identified in investment analysis and engagement, asset managers and their clients are engaging with policymakers to seek corrective policy measures. | | |

| | By 2021 | By 2025 | By 2030 | By 2040 |
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| | degree scenarios and embed into investment analysis and forward pricing assumptions and stress tests. | | | |
| *Insurance and Underwriting* | • Insurers and underwriters join the Net Zero Underwriting Alliance to work together to align underwriting practice with net zero. Publish TCFD disclosures, including a transition plan, annually<br>• Leaders start to explore how to adequately incorporate climate risks, which are assessed over long term, into short term underwriting horizons, as when risk events occur, losses are increasingly severe.<br>• Begin to require climate risk disclosures (TCFD and transition plans) as part of underwriting due diligence.<br>• Join and embed Principles for Sustainable Insurance into business models.<br>• Embed IEA 1.5 degree pathway into underwriting appetite. | • Climate aware underwriting models and risk frameworks now established and leaders adopting them.<br>• Risk appetites and underwriting frameworks increasingly aligned to net zero goals.<br>• Underwriting and investment exclusions are increasingly aligned.<br>• Insurers increasingly requiring TCFD disclosure and transition plans as a condition precedent, and underwriting costs for those with comprehensive disclosures and credible transition plans are implemented on the basis of better risk-aware underwriting decisions. Those corporates not making disclosures or without credible, science-based transition plans start to see underwiring costs increasing rapidly.<br>• Underwriting risk horizon increasing over time as more information about the transition and physical risks becomes understood.<br>• Climate litigation risks from underwriting decisions, including D&O insurance, considered as part of decisions to offer cover. | • Underwriting decisions now regularly aligned with net zero and companies not aligned with the transition find underwriting costs increasingly prohibitive.<br>• High risk sectors require clear disclosure and governance as conditions of cover. | |

| | By 2021 | By 2025 | By 2030 | By 2040 |
|---|---|---|---|---|
| *IFIs, DFIs & Innovation Funding* (1/2)<br>*IFIs, DFIs & Innovation Funding* (2/2) | • Increase understanding of the wider ESG risks across the value chain of renewable energy and other positive sectors driving the carbon transition | • Adapt investment strategies in renewable energy and other clean infrastructure to ensure that land rights, rare mineral extraction, worker rights, across the entire value chain, and end-of-life material management, operate by the same high standards expected of other sectors.<br>• Prioritize finance and sector improvement strategies on infrastructure initiatives that actively demonstrate just transition and regenerative outcomes such as circular material flows, community resilience building, ecosystem restoration. | • Develop and operate clear strategies for investing in transition sectors in ways that ensure resilient livelihoods and community/worker rights are designed in from the start<br>• Ensure finance is only provided to transition infrastructure projects and companies that actively demonstrate integration of just transition and regenerative outcomes such as circular material flows, community resilience building, ecosystem restoration. | • Ensure finance is only provided to transition infrastructure projects and companies that actively demonstrate integration of just transition and regenerative outcomes such as circular material flows, community resilience building, ecosystem restoration. |
| *Service Providers & Advisers*<br>(1/5) | Investment consultants<br>• Join the Investment Consultants Sustainability Working Group and work towards a Net Zero Alliance.<br>• Make own net zero commitment and embed net zero principles into advisory and incentive structures<br>• Set long-term incentives and processes, to work with asset managers not churn mandate allocation<br>• Demand data and reporting on key risks and metrics aligned to net zero and climate risk and mitigation | Investment consultants<br>• Assess net zero commitments, decarbonization strategy, engagement and voting, market engagement and reform performance as well as financial performance<br>• Client education and advice on issues like physical, transition and liability risks, real economy decarbonization, role of engagement versus divestment, and policy advice as real economy accelerates transition | Investment consultants<br>• Net zero alignment now part of business as usual advice and service provision.<br>• Consultants are now able to provide advice on climate risks and the best methods to make a transition to net zero, as well as the most appropriate investment strategies to do so. | |

| | By 2021 | By 2025 | By 2030 | By 2040 |
|---|---|---|---|---|
| *Service Providers & Advisers*<br>(2/5) | Credit Rating Agencies<br>• Leaders start to consider how to integrate transition risk and mitigation through transition planning and net zero pathways into credit rating methodology<br>• Disclose how TCFD risks are integrated into methodology<br>• Either extend the time horizon of ratings, or provide a short and long term analysis<br>• Increase understanding of the wider ESG risks across the value chain of renewable energy and other positive sectors driving the carbon transition | • If issuers are not providing TCFD and transition planning disclosures as well as net zero commitments, then CRAs will flag or qualify a rating.<br>• Ratings increasingly long term tilted in terms of transition risks integration.<br>• Ensure clean sectors such as renewable energy do not simply score highest scores based on carbon, but on analysis of full ESG issues covering land rights, labor rights, biodiversity.<br>• Review ratings to update them to cover just transition themes and wider planetary health, beyond current risk and impact issues. | • Credit ratings now integrate climate and transition risks. Any laggard issuers finding ratings either poor or not provided were disclosure or planning inadequate.<br>• Deploy updated ratings so that they go beyond current ESG and impact issues to assess contributions of infrastructure to just transition and planetary health. | |
| | Stock Exchanges<br>• Consider how to amend issuer requirements and listing rules (if within control) – TCFD reporting and transition plan with shareholder vote on both | • Aggregated TCFD reporting on risk within companies listed on the exchange | | |

| | By 2021 | By 2025 | By 2030 | By 2040 |
| --- | --- | --- | --- | --- |
| *Service Providers & Advisers*<br><br>(3/5) | • Embed net zero commitment into own business plan and operations | • Disclosure of trajectory and implied warming potential of exchange<br>• % of companies listed with net zero targets and reporting against decarbonization trajectories | | |
| | Retail Financial advisers and distributors<br>• Leaders embed preferences on net zero alignment and transition into suitability | • Discussion of preferences and alignment with long term climate aware advice now commonplace. | | |
| | Lawyers<br>• Ensure understanding of fiduciary duty and regulatory framework sufficiently recognizes current practice and climate and sustainability issues, challenging outdated interpretations where those exist.<br>• Litigation increasingly used to press governments and companies to take long term, climate aware decisions. | • Fiduciary duty and regulatory interpretation aligned with progressive, climate and sustainably aware understandings.<br>• Litigation risk now a meaningful consideration in government and corporate behavior. | | |
| | Proxy voting agencies<br>• Ensure voting recommendations are aligned with the need for TCFD reporting, material climate risk disclosure, and the need for strategic planning and remuneration to align with net zero and transition. | • Voting recommendations now require credible alignment with net zero, long term strategic transition planning and management is held to account through remuneration and re-election votes for meeting interim steps. | | |

| | By 2021 | By 2025 | By 2030 | By 2040 |
|---|---|---|---|---|
| *Service Providers & Advisers*<br>(4/5) | Index providers<br>• Role in defining asset allocation through investment universe increasingly understood and climate aware indices being developed. | • Climate and net zero aligned indices increasingly being preferred by market participants. Methodologies continue to develop and companies not aligned with net zero increasingly excluded. | • All mainstream indices now incorporate net zero methodology. | |
| | Data providers and rating agencies<br>• Seek to provide increased transparency on assessment of companies and products' climate and other ESG and sustainability credentials. | • Methodologies develop, alongside increased transparency to incorporate climate and net zero more effectively. Those without credible disclosures and transition plans find ratings are lower, impacting investment attractiveness. | | |
| | Custodians<br>• Ensure that custody arrangements facilitate effective stewardship and voting activity. | • | | |

| | By 2021 | By 2025 | By 2030 | By 2040 |
|---|---|---|---|---|
| *Service Providers & Advisers*<br>(5/5) | Accountants<br>• Engage with and support development of sustainability disclosures in financial reporting, including with the IFRS development of a Sustainability Standards Board alongside SEC.<br><br>Auditors<br>• Build capacity to provide assurance on sustainability and climate reporting. | • Climate and long-term sustainability reporting now increasingly provided alongside financial reporting.<br>• Climate and sustainability issues also embedded in financial reporting due to increasingly material impacts.<br><br>• Assurance of sustainability reporting is now commonplace. | • Sustainability financial accounting and reporting now business as usual. | |

## EXISTING INITIATIVES

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|---|---|
| Net-Zero Asset Managers | An international group of asset managers committed to supporting the goal of net zero greenhouse gas emissions by 2050 or sooner, in line with global efforts to limit warming to 1.5 degrees Celsius; and to supporting investing aligned with net zero emissions by 2050 or sooner. |

Impact 3

# Creating systemic transformation tool and building capacity

MITIGATION / ADAPTATION

**Nexus**

| | By 2021 | By 2025 | By 2030 | By 2040 |
|---|---|---|---|---|
| **Policymakers** (1/3) | **Transitioning Finance**<br>• Taxonomies: Signal the creation of taxonomies or classification systems to enable the categorization of economic activities and sectors in relation to sustainability.<br>• Where the creation of such taxonomies is already underway, ensure that these are established in such a way as to ensure comparability and compatibility with other jurisdictional taxonomies.<br>• Establish sustainable finance education programs. Consider partners such as universities or research institutions.<br>• Participate in and endorse coordination mechanisms to promote | **Transitioning Finance**<br>• Implementation of shared, globally comparable taxonomies and classification systems is complete.<br>• All governments clarify that the economic strategy of the Government includes supporting the transition to a net zero emissions and climate resilient development economy<br>• The UN statistical framework, established in 2021, the System of Environmental-Economic Accounting – Ecosystem Accounting to ensure that natural capital, such as forests, wetlands and other ecosystems are recognized in economic reporting, is firmly cemented as replacing GDP. | **Transitioning Finance**<br>• Climate change laws and budgets in place in all countries<br>• Impose levies/ fines on corporates (including FIs) who do not have or continually operate outside of credible net zero pathways and whose activities work against the meeting of NDCs | |

| | By 2021 | By 2025 | By 2030 | By 2040 |
|---|---|---|---|---|
| **Policymakers**<br>(2/3) | integrity, accountability and harmonization of targets and standards across financial systems, such as the IFRS Foundation creation of a Sustainability Standards Board.<br>• Participate in, and implement recommendations from, the Coalition of Finance Ministers for Climate Action and Network for Greening the Financial System (NGFS).<br>• Governments, in particular, from the G7 and G20. clarify that the economic strategy of the Government includes supporting the transition to a net zero emissions economy and to climate resilient development<br>• Establish policy dialogues bringing together financial institutions, national, local and subnational government, MPs, regulat ors, business, consumer groups, civil society, academia and the research and analytical communities to work towards a net-zero, climate resilient financial system.<br>• Governments ensure that local and subnational climate actions are clearly incorporated into NDCs and NAPs definition and reviews by 2021<br>• G7 and G20 commitments at Leaders-level to move to a net-zero, climate resilient financial system and creation of task forces to take the commitment forward - this could include a focus on | • Legal sanctions against greenwashing in place in all major G20 economies and beyond.<br>• Climate change laws and budgets in place in all G20 countries and beyond.<br>• Governments provide databases for financial system actors linking information on inventories of GHG emissions, granular, region-specific climate risk maps and national climate policies and goals.<br>**Transitioning Finance**<br>• Continue policy dialogues bringing together financial institutions, local and subnational government, MPs, regulators, business , consumer groups, civil society, academia and the research and analytical communities to work towards a net-zero financial system.<br>• Governments establish and systematise long-term, structured and regular dialogue with local and subnational governments and civil society organisations, and put in place taskforces to facilitate vertical integration, coordination and cross-fertilisation of climate policies and action at the local, subnational, and national levels<br>• Governments, together with Finance and Investment ecosystem of institutions, support the definition and implementation of a Global Action | | |

| | By 2021 | By 2025 | By 2030 | By 2040 |
|---|---|---|---|---|
| **Policymakers**<br>(3/3) | transition plans in line with a net-zero, climate resilient future and rebalancing of the macroprudential rules to incorporate contributions to systemic risk.<br>• Governments, in particular, from the G7 and G20. ensure the establishment of the international frameworks needed that can accelerate the financing of net-zero, resilience and just transition such as convening an International Platform for Climate Finance (IPCF) that could oversee the development and implementation of a Global Financial Transition Strategy, including the updating of the mandates of entities within the global financial architecture to embed net zero and climate resilience.<br>• Convene a hub for Technical Assistance for developing countries in order to produce investable capital raising plans for NDCs and NAPs. Match that to large financial institution investment appetite via a climate finance “bridge” to match public demand and the supply of private capital. | Framework on Localizing Climate Finance by 2025, to enable the strengthening of the local financing value chain, for a 1.5°C compatible Paris Agreement.<br>• Global and regional platforms/initiatives for vertical integration, funding and financing of local and subnational climate policies and action are mapped, referenced, supported and/or established by 2025, for capitalization and dissemination of local climate action best practices and local climate projects preparation, engineering and financing<br>• Governments implement actionable policies, strategies and mechanisms for fiscal decentralization empowering local and subnational governments to establish specific local fiscal strategies and tools for climate action, and to manage these revenues, | | |
| **Financial Institutions and Actors** | | | | |
| *Central Banks*<br>(1/2) | **Transitioning Finance**<br>• Development of Central Bank digital currencies to be in step with green principles and to allow transaction | **Transitioning Finance**<br>• Implementation of CBDCs increases the velocity of money and reduce the need | | |

| | By 2021 | By 2025 | By 2030 | By 2040 |
|---|---|---|---|---|
| | level data to be used to track embedded emissions of asset purchases and other capital expenditure. | for repurchase agreements and open market operations.<br>• CBDCs are linked to carbon tracking blockchains to better provide information of emissions along supply and value chains as well as asset level data. | | |
| *Banking and Lending*<br>(1/2)<br><br>*Banking and Lending*<br>(2/2) | **Transitioning Finance**<br>• Digital transformation within banks and lenders to be inherently tied to climate risk and net zero target transformation, allowing the transition to be data driven and science based.<br>• Bank begin integrating climate risk and environmental information into data harbors<br>• New climate and transition risk teams to be part of risk management and finance teams to begin analysis of financed emissions.<br>• Climate risk teams to be upskilled in carbon accounting methodologies.<br>• Client facing staff to be trained in sustainable finance, GHG accounting and climate risk to assist with discussions around new requirements and policies relating to climate risk and net zero emissions targets. | **Transitioning Finance**<br>• New and existing payments rails and merchant acquiring networks to be enhanced to allow for carbon tracking and calculating data, making it easier for banks and customers to use transaction data to map carbon footprints and flows.<br>• Banks increase engagement with clients on net zero transition and work with educating them and their professional service advisors on requirements for continued funding through the transition to a low carbon economy.<br>• Credit scoring and decisioning engines to begin integrating climate risk and environmental data.<br>• Stocktake of loan collateral to be undertaken to begin to understand physical risk and stranded asset potential.<br>• Replicate best practice from other initiatives, such as Know Your Customer (KYC) becoming Know Your Carbon (KYCO2): Begin implementing standards in high emitting corporations to adhere | **Transitioning Finance**<br>• KYCO2 standards to be extended to all large corporates who are required by law to make TCFD aligned disclosures.<br>• Stranded or likely stranded asset registers to be created to communicate with governments, industry and shareholders on potential write-downs and defaults.<br>• Transition teams to be formed to deal with stranded assets and refinancing/ wind down of non net zero compliant companies.<br>• Previous actions with larger corporates to be filtered down to SMEs over the coming decade.<br>• Machine learning and AI uses accumulated data and begins predictive modelling of pathways for bank clients, allowing feedback loops of ambition, target setting, measuring and verification. | **Transitioning Finance**<br>• Climate risk, including water-related risks, is fully absorbed into day to day risk management practices.<br>• Carbon tracking and accounting in integrated into bank and transaction data allowing for real time understanding of financed emissions. |

| | By 2021 | By 2025 | By 2030 | By 2040 |
|---|---|---|---|---|
| | • Deal and analyst teams to begin to integrate climate scenarios in downside analyses. | to KYCO2. All verified emissions and reductions pathways must be known and registered.<br>• Implement Green/ Sustainable Asset Ratios for commercial banks<br>• Enforce climate risk related Capital Adequacy Ratios for commercial banks Risk Weighted Assets in lending to high emitting sectors.<br>• Ensure all macroprudential measures and controls consider climate risk and promote net zero.<br>• Starting engagement / education plans for SMEs | | |
| *Investment* (1/2)<br><br>*Investment* (2/2) | **Transitioning Finance**<br>• Set approved, science based, net zero targets with short to medium term interim targets<br>• Asset owners should commit to achieve net zero alignment by 2050 or sooner, drawing on the Net Zero Investment Framework to deliver these commitments.<br>• Join and actively participate in the work of investor networks & forums focused on climate change such as The Investor Agenda, and the partner initiatives of the Glasgow Finance Alliance for Net-Zero (GFANZ), to gain and share knowledge and experience of how to deliver significant real economy | **Transitioning Finance**<br>• Set approved, science based, net zero targets with short to medium term interim targets<br>• Increase offering of green/ net zero aligned products to retail investors<br>• Investors consider scope 1&2 of emissions from digital currencies<br>• Monitor the use of climate risk analytics and scenario analysis to assess impacts of transition, physical and liability risks on assets | **Transitioning Finance**<br>• Use of tokenization of physical assets and blockchain for greater transparency of transactions relating to offsets and carbon markets<br>• Utilize technology such as AI and machine learning for portfolio optimization | |

| | By 2021 | By 2025 | By 2030 | By 2040 |
|---|---|---|---|---|
| | progress towards a net zero and resilient future by 2030<br>• Take action in line with The Investor Agenda's Investor Climate Action Plans (ICAP)<br>• Use climate risk analytics and scenario analysis to assess impacts of transition and physical risks on assets<br>• Use portfolio alignment tools, such as those recommended by the COP26 Portfolio Alignment Team, to assess progress towards achieving emissions reduction targets<br>• Use sectoral net zero benchmarks to assess and engage with companies | | | |
| *Insurance & Underwriting* | **Financing the Transition**<br>• Offer discounted premiums to services/clients contributing to emissions reductions or that are aligned with net zero | | | |
| *IFIs, DFIs & Innovation Funding* | **Financing the Transition**<br>• Funding to support mobile money services for businesses and individuals in emerging economies | • Governments and national, regional and international Finance Institutions have in place technical assistance funding and project preparation facilities focused on subnational infrastructure | • National, subnational and local governments as well as finance institutions include and earmark specific budgets on local and subnational climate action planning and implementation | • "FinHubs" have enhanced significantly the quality of projects presented to public and private investors and initiated a complete renewal of financial models, instruments and solutions available on the market |

| | By 2021 | By 2025 | By 2030 | By 2040 |
|---|---|---|---|---|
| | • Make finance more accessible for subnational governments<br>• Governments provide, together with Finance and Investments Institutions, earmarked resources to support expert project preparation and technical assistance, including through implementing Domestic Hubs of Financial Expertise (“FinHubs”) for Local Climate Action Financing, and mechanisms for guarantees and credit enhancement for local deals | projects, with attention to early-stage project development | • Governments create and support domestic climate finance expertise hubs (“FinHubs”) offering local and subnational governments the adapted and required professional advisory support to climate-compliant project preparation and deal closing by 2025, and connecting local and regional governments to existing project preparation facilities and initiatives, and technical assistance supply, incl. for local financial engineering innovation | |
| *Service Providers & Advisors* | **Transitioning Finance**<br>• Exchanges and Ratings agencies to formally introduce standards for green and ESG labels to prevent greenwashing and guarantee use of funds. | **Transitioning Finance**<br>• Provide net zero, climate resilient, portfolio construction tools<br>• Incorporate net zero targets and physical risk considerations into investment advice to clients<br>• Offer integrated data platforms to enable streamlined reporting from corporates to investors<br>• Develop net zero, climate resilient benchmarks and indexes | | |
| **Corporates** | **Transitioning Finance**<br>• Begin upskilling of finance and accounting teams in GHG accounting methodologies. | **Transitioning Finance**<br>• Full integration of GHG accounting into management accounting practices and financial forecasts. | | |

| | By 2021 | By 2025 | By 2030 | By 2040 |
|---|---|---|---|---|
| | **Financing the Transition**<br>• Begin discussion with banks around debt facilities being linked to related physical risks and their sustainability performance (e.g. Sustainability Linked Bonds/ Loans) to drive systemic change from demand side. | • Increase proportion of debt facilities tied to sustainability metrics | | |
| **Local Government Actors**<br>(1/2)<br><br>**Local Government Actors** | **Financing the Transition**<br>• Governments, and Finance and investment institutions support local and subnational governments in becoming creditworthy, in gaining greater authority and autonomy over own-source revenues and becoming empowered to use the wide array of financing mechanisms, including equity and debt financing (e. g. green bonds, subnational pooled financing mechanisms, sectorial concessional or market based loans, etc.), directly or through intermediaries (e.g. through special purpose vehicles)<br>• Governments work with banks and advisors on raising capital through labelled municipal bonds and other financing instruments, also applicable for emerging economies, bonds and to drive systemic change from demand side | **Financing the Transition**<br>• National, subnational and local governments as well as finance institutions include and earmark specific budgets on local and subnational climate action planning and implementation<br>• Governments and finance institutions dedicate financing for guarantees and credit enhancement mechanisms for local and subnational climate action projects<br>• Governments create and support domestic climate finance expertise hubs (“FinHubs”) offering local and subnational governments the adapted and required professional advisory support to climate-compliant project preparation and deal closing by 2025, and connecting local and regional governments to existing project preparation facilities and initiatives, and technical assistance supply, including | | |

| | By 2021 | By 2025 | By 2030 | By 2040 |
|---|---|---|---|---|
| (2/2) | | for local financial engineering innovation<br>• Commit to purchasing an increasing percentage of low carbon materials for infrastructure development.<br>• Requests for Proposals for public tenders to include life cycle analysis and account for embedded carbon.<br>• Begin conversion, replacement and retrofit of public transportation infrastructure to align with net zero goals.<br>• Form PPP's with commercial and development banks in providing integrated distributed energy infrastructure that includes EV charging and demand side management. | | |
| **Civil Society** (1/2)<br>**Civil Society** (2/2) | **Transitioning Finance**<br>• Call on governments and financial institutions to transition the financial system to limit warming to 1.5 degrees and ensure resilience.<br>• Participate in sustainable finance education programs<br>• Choose net zero aligned financial products<br>• Continue to bridge the financial system and the general public, building trust and capacity and raising public awareness on key issues and their ability to influence them, not least providing the | **Transitioning Finance**<br>• Call on governments and financial institutions to transition the financial system to limit warming to 1.5 degrees and ensure resilience.<br>• Participate in sustainable finance education programs | **Transitioning Finance**<br>• Call on governments and financial institutions to transition the financial system to limit warming to 1.5 degrees and ensure resilience.<br>• Participate in sustainable finance education programs | **Transitioning Finance**<br>• Call on governments and financial institutions to transition the financial system to limit warming to 1.5 degrees and ensure resilience.<br>• Participate in sustainable finance education programs |

| | By 2021 | By 2025 | By 2030 | By 2040 |
|---|---|---|---|---|
| | democratic obligation for governments to show increased ambition and action. | | | |

## EXISTING INITIATIVES

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| The Investor Agenda | The Investor Agenda is a common leadership agenda on the climate crisis that is unifying, comprehensive, and focused on accelerating investor action for a net-zero emissions economy.<br>The Investor Agenda draws on expertise from across the investor landscape to set out clearly joint expectations in four interlocking areas – corporate engagement, investment, policy advocacy and investor disclosure:<br>• Corporate Engagement: Engaging companies to drive and demonstrate real progress in line with a 1.5-degree Celsius future.<br>Investment: Managing systemic climate risks in investor portfolios and enabling the transition by shifting capital to value-creating businesses set to succeed in a net-zero future.<br>• Policy Advocacy: Advocating for policies aligned with delivering a just transition to a net-zero economy by 2050 or sooner.<br>• Investor Disclosure: Enhancing investor disclosure to help stakeholders track investor action in line with a 1.5-degree Celsius pathway.<br>Together, these areas constitute a roadmap for a robust investor climate action plan, wherever investors are on the journey to a net-zero emissions economy.<br>Find out more info here. |
| Investor Climate Action Plans: https://theinvestoragenda.org/icaps/ | The Investor Climate Action Plans (ICAPs) Expectations Ladder and Guidance provides investors with clear expectations for issuing and implementing comprehensive climate action plans, including steps investors can take to support the goal of a net-zero emissions economy by 2050 or sooner. The framework aims to help investors navigate existing expectations and initiatives on climate change. |
| Net Zero Asset Managers Initiative | The Net Zero Asset Managers initiative is an international group of asset managers committed to supporting the goal of net zero greenhouse gas emissions by 2050 or sooner, in line with global efforts to limit warming to 1.5 degrees Celsius; and to supporting investing aligned with net zero emissions by 2050 or sooner. Find out more info here. |
| Climate Action 100+ | Climate Action 100+ is an investor-led initiative to ensure the world's largest corporate greenhouse gas emitters take necessary action on climate change. Find out more info here. |

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| Paris Aligned Investment Initiative | The Paris Aligned Investment Initiative is a collaborative investor-led global forum enabling investors to align their portfolios and activities to the goals of the Paris Agreement.<br><br>The Paris Aligned Investment Initiative (PAII) was established in May 2019 by the Institutional Investors Group on Climate Change (IIGCC). As of March 2021, the initiative has grown into a global collaboration supported by four regional investor networks – AIGCC (Asia), Ceres (North America), IIGCC (Europe) and IGCC (Australasia).<br><br>110 investors representing $33 trillion in assets have engaged in the development of the Net Zero Investment Framework through the Paris Aligned Investment Initiative. Find out more info here. |
| Net Zero Finance Tracker | https://www.climatepolicyinitiative.org/net-zero-finance-tracker/ |

# FURTHER REFERENCES

| | |
|---|---|
| COP26 Private Finance Strategy | https://ukcop26.org/wp-content/uploads/2020/11/COP26-Private-Finance-Hub-Strategy_Nov-2020v4.1.pdf |
| Measuring Portfolio Alignment: Technical Supplement | https://assets.bbhub.io/company/sites/60/2021/05/2021-TCFD-Portfolio_Alignment_Technical_Supplement.pdf |
| Intergovernmental Panel on Climate Change, Special Report: Global Warming of 1.5°C | |
| https://www.avivainvestors.com/en-gb/about/company-news/2021/04/aviva-investors-proposes-revisions-to-international-financial-architecture/ | |
| https://www.bankofengland.co.uk/news/2021/march/mpc-remit-statement-and-letter-and-fpc-remit-letter | |
| System of Environmental Economic Accounting | https://seea.un.org/ecosystem-accounting |
| Climate: The Financial Challenge | https://www.afd.fr/en/ressources/climate-financial-challenge#:~:text=A%20massive%20reallocation%20of%20investments,%2C%20lower%2Dcarbon%20economic%20models. |
| IEA - Net Zero by 2050: A Roadmap for the Global Energy Sector | https://www.iea.org/reports/net-zero-by-2050 |

Impact 4

# Improving Incentives & Risk Management

MITIGATION / ADAPTATION

| Nexus | Energy | Human settlements | Land use |
|---|---|---|---|
| | 7 AFFORDABLE AND CLEAN ENERGY | 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE | 10 REDUCED INEQUALITIES | 11 SUSTAINABLE CITIES AND COMMUNITIES | 12 RESPONSIBLE CONSUMPTION AND PRODUCTION |

| | By 2021 | By 2025 | By 2030 | By 2040 |
|---|---|---|---|---|
| **Policymakers**<br>(1/3) | **Transitioning Finance**<br>• Introduce a Carbon Price on high emitting sectors. [See Impact Area 1 for more details]<br>• Mandatory TCFD aligned disclosure for all Financial Institutions and companies that trade on public markets.<br>• Encourage TCFD aligned disclosures to include net zero and climate resilient pathways.<br>• Begin climate stress test exercises with banks and insurers.<br>• Explore standards for 'circular' economic activity that discourage | **Transitioning Finance**<br>• Expand carbon pricing to broader sectors. [See Impact Area 1 for more details]<br>• Mandatory disclosure to extend to private markets and shadow banking.<br>• All disclosure from Financial Institutions and the entities they finance to include credible, science-based net zero pathways transition plans and targets.<br>• Mandatory disclosure and transition plans expanded to all middle market (per local framework) companies. | **Transitioning Finance**<br>• Work with central banks, financial institutions, all levels of government and affected corporates to create a 'bad bank' and securitization vehicles for stranded and non-net-zero assets to crystalize physical and transition risk and accelerate investment in solutions. | **Transitioning Finance**<br>• Carbon prices, disclosure, transition plans and target setting policy `fully integrated with all corporations and financial services laws and regulation to ensure financial stability within planetary boundaries beyond 2050 for future generations. |

| | By 2021 | By 2025 | By 2030 | By 2040 |
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| **Policymakers**<br>(2/3) | emissions, waste, pollution and encourage activity within planetary boundaries.<br>• Enter dialogues with stakeholders on stranded assets because of climate risk mitigation.<br>• Support policy actions that enable a fee structure to favor secondary/recycled plastics i.e., incentives for recycling industry, preferential procurement, virgin material tax to develop and incentivize recycling and treatment markets.<br>• International Policy makers and regulators to begin consultation on taxonomy for sustainable finance labelling and verification to mitigate greenwashing.<br><br>**Financing the transition**<br>• Increase fiscal spending that encourages zero carbon, resilient infrastructure, and supply chains.<br>• Governments put in place financial incentives and structuring to encourage cross-jurisdictional/metropolitan governance models that can facilitate local climate action coordination across boundaries. | • Apply Green/ Sustainable Asset Ratios on prudentially regulated institutions related to financial products that link with science-based Net Zero pathways<br>• Construct internationally recognized formulation and validation of credible, science-based net zero pathways and transition plans to incentivize companies and the FIs that fund them to adopt these to align with NDCs.<br>• Implementation and enforcement of sustainable finance standards that impose severe penalties for greenwashing and fraud. Establish formal audit/verification processes for mandatory disclosures, including emissions accounting.<br><br>**Financing the Transition**<br>• Provide fiscal incentives for corporates and financiers that encourages 'circular' economic activity.<br>• Increase funding to DFIs, catalyze and crowd in private capital to climate solutions.<br>• Support local and subnational governments in becoming creditworthy, in gaining greater authority and autonomy over own-source revenues and becoming | | |

| | By 2021 | By 2025 | By 2030 | By 2040 |
|---|---|---|---|---|
| **Policymakers** (3/3) | | empowered to use the wide array of financing mechanisms, including equity and debt financing (e. g. green bonds, subnational pooled financing mechanisms, sectorial concessional or market-based loans, etc.), directly or through intermediaries (e.g. through special purpose vehicles)<br>• National, local and subnational governments have in place a set of fiscal incentives (taxes/exemptions) to support SMEs, households, developers and operators in prioritizing climate-proof infrastructure and actions by 2025, including Local Carbon Markets<br>• Governments allocate funds for Risk Mitigation Mechanisms (Credit enhancement etc.) for local and subnational climate mitigation and adaptation finance | | |
| **Financial Institutions and Actors** | | | | |
| *Central Banks* (1/2) | **Transitioning Finance**<br>• Develop a net-zero roadmap including long term expectations and near-term actions.<br>• Integrate climate change into monetary frameworks and models to account for the impacts of climate change on macroeconomic outcomes.<br>• Within their mandate of employment, explore the implications of the net- | **Transitioning Finance**<br>• Mandate TCFD aligned disclosure, with third party verification from all corporate counterparties of commercial banks.<br>• End securities repurchase agreements with banks for fossil fuel companies.<br>• Require all regulated financial institutions to submit net-zero | **Transitioning Finance**<br>• All Capital Adequacy Ratios for commercial banks to integrate climate risk and to reflect portfolio alignment to net zero.<br>• Continue to monitor and adjust capital requirements for banks and monetary policies in line with increased understanding and cooperation on climate risk. | **Transitioning Finance**<br>• Climate risk is fully integrated into central bank mandates and activities outside of net zero pathways are properly addressed in asset portfolios, repurchase agreements and macroprudential regulation so that the banking sector's approach to capital allocation is intrinsically tied to these considerations. |

| | By 2021 | By 2025 | By 2030 | By 2040 |
|---|---|---|---|---|
| *Central Banks*<br>(2/2) | zero transition for jobs and livelihoods.<br>• Begin climate stress testing of commercial banks.<br>• Mandatory TCFD aligned disclosure required by all commercial bank depositors at Central Banks.<br>**Financing the Transition**<br>• Commit to phase out of purchasing fossil fuel securities in line with NDCs where there is no transition plan in place<br>• Commit to Net Zero emissions in central bank debt (including sovereign) and equity portfolios by 2050 | transition plans and physical risk related plans.<br>• Incorporation of net-zero and climate resilience into international frameworks. | • Climate risk integrated into all stress testing scenarios.<br>• Securities repurchase agreements with banks to end for all assets not aligned with net zero. | |
| *Banking and Lending*<br>(1/3) | **Transitioning Finance**<br>• Set science-based targets to reduce scope 1 & 2 emissions to net zero by 2050 or sooner and commit to net zero financed emissions by 2050 or earlier, with science-based targets to be set by 2025. The targets should include interim targets which are externally validated.<br>• Request TCFD aligned disclosure for both public and private companies, with a view to integration into all pre lend due diligence by 2025.<br>• Complete both mandated and voluntary analysis of climate risk within current lending and | **Transitioning Finance**<br>• Mandatory TCFD aligned disclosure and transition plans required by all corporate and institutional clients.<br>• Have net zero transition metrics integrated into portfolio risk weighting and capital management.<br>• Integration of climate risk into credit risk PD and LGD models so pricing accurately reflects all risks of not aligning to 1.5C pathways.<br>• Risk Appetite Statements to reflect the integration of climate risk into all areas of financing. | **Transitioning Finance**<br>• Mandatory TCFD aligned disclosure from all clients.<br>• All clients to have approved and third party verified net zero transition plans and targets.<br>• Majority of portfolios aligned and on track to meet Net Zero financed emissions by 2050.<br>• Cease finance to any company that has >5% revenue attributed to fossil fuel extraction, refinement, or distribution. | **Transitioning Finance**<br>• Cease financing to all companies and assets that extract, refine, distribute, or use fossil fuels except where exempt in future approved pathways (e.g. negative emissions are in place).<br>• Climate risk and temperature pathways are fully integrated into bank risk policies and are part of BAU due diligence. |

| | By 2021 | By 2025 | By 2030 | By 2040 |
|---|---|---|---|---|
| *Banking and Lending*<br>(2/3) | investment portfolios to better understand pathways to reaching net zero financed emissions and climate resilient development.<br>• Use this analysis to begin integrating climate risk into portfolio risk weighting and capital management metrics and Risk Appetite Statements.<br>• Engage with fossil fuel projects and companies to put forward credible transition plans<br>• Commit to eliminate deforestation impacts associated with investment, lending and underwriting<br>• Private Debt & NBFI sectors to work with banking and investment firms to align interests and pathways to ensure firms and projects that are not aligned to net zero are not transferred/ hidden in shadow banking.<br>**Financing the Transition**<br>• Set targets to % of loans with sustainability/ net zero metrics with a view of 100% by 2030.<br>• Work with Green Banks and DFIs in providing retail and commercial green and transition finance products.<br>• Form co-development hubs between corporate clients to encourage collaboration on circular business | • Resultant integration of climate risk will reward net-zero aligned firms with better pricing in sustainability linked loan programs that accurately reflect climate ambition.<br>• Cease financing to all fossil fuel companies without, credible net zero aligned science-based transition plan.<br>• Deforestation impacts have been eliminated from all commercial activities, with ongoing monitoring/tracing to avoid backsliding<br>• Carbon pricing integrated into credit risk assessment and scenario analysis.<br>• Private Debt & NBFIs to form Net Zero Alliance in line with GFANZ/ Race to Zero.<br>• Investment Banks commit to cease prime brokerage services for investments in the fossil fuel sector by 2030, pricing of securities lending to reflect climate risk and the ambition of the companies.<br>• Investment banks commit to ending underwriting of capital markets issuances of fossil fuel companies and projects by 2030 where no credible/ approved net zero pathway is in place.<br>**Financing the Transition** | • Cease financing any new asset that uses fossil fuels where a price similar alternative is available.<br>• Cease financing companies and supply chains that contribute to destructive deforestation, particularly in tropical forests and in emerging markets.<br>• 100% of financing on and off balance sheet to be aligned with net zero pathways.<br>**Financing the Transition**<br>• All finance products to be designed with sustainability and net zero target metrics in mind, wherein deviation from emissions reductions or temperature targets will result in pricing changes and in material cases, an event of default.<br>• Stranded and non-compliant assets (both physical and financial) begin to be refinanced and securitized into govt/ industry ‘bad bank’ and wound down/ repurposed. | |

| | By 2021 | By 2025 | By 2030 | By 2040 |
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| *Banking and Lending*<br>(3/3) | solutions that mitigate climate risk and promote resilience. | • Banks and lenders along with govt. and industry begin exploring portfolios for potential stranded assets, with provisions to be raised over a suitable timeframe to write-off these losses.<br>• Provide loan pricing incentives to companies that use 'circular' frameworks and activities that encourage reduced emissions, waste, pollution and encourage activities within planetary boundaries, both in their own operations and for those of their clients. | | |
| *Investment*<br>(1/2) | **Transitioning Finance**<br>• Request TCFD aligned disclosure for public and private companies to better understand climate risk.<br>• Commit to net zero financed emissions in line with GFANZ/ Race to Zero programs.<br>• Disclose Scope 1, 2 & 3 emissions in TCFD aligned reporting.<br>• Commit to a phase out of investment in fossil fuel projects and companies without a credible transition plan.<br>• Commit to eliminate deforestation impacts across investment portfolios<br>• Private Equity (in sync with private debt) to begin aligning to net zero pathways with public markets and banks to ensure investments in high | **Transitioning Finance**<br>• Set approved, science based, net zero targets for scope 1, 2 & 3 (incl. financed) emissions with short to medium term interim milestones and third-party verification.<br>• Continue engaging with companies on climate transition plans and setting science-based targets with a signal to divestment over the next decade where no credible transition plan or target is apparent, ensuring a collaborative approach with broader initiatives (e.g. GFANZ) so divestment is consistent across public and private capital markets and leads to pricing and funding pressure on non-aligned companies. | **Transitioning Finance**<br>• Continue reporting against science-based targets and reducing financed emissions.<br>• End investments in fossil fuel companies (where no credible transition plan/ approved target exists).<br>• End investment in securities or private debt related to all fossil fuel projects.<br>• After sufficient engagement, begin divesting from companies where no credible transition plan or science-based target exists.<br>**Financing the Transition**<br>• Investors increase allocation of capital to climate solutions for both | **Transitioning Finance**<br>• All investments in the real economy are in line with net zero and climate resilient pathways.<br>**Financing the Transition**<br>• Increase substantial % of AUM to climate solutions with a focus on resilience and adaptation in climate affected areas, particularly for the most vulnerable groups and communities |

| | By 2021 | By 2025 | By 2030 | By 2040 |
|---|---|---|---|---|
| *Investment*<br><br>(2/2) | emitting sectors are not transferred to shadow banking. vehicles.<br><br>• Asset Owners (and asset managers where within mandate) commit to allocating a % portion of AUM to climate solutions including following in MDBs and DFIs to emerging technologies and emerging markets to ensure a just transition, focusing on the most vulnerable groups and communities.<br><br>• Begin engaging with companies on climate transition plans and setting science-based targets.<br><br>**Financing the Transition**<br><br>• Investors begin to explore and allocate capital to climate solutions. | • Deforestation impacts have been eliminated from investment portfolios, with ongoing monitoring/tracing to avoid backsliding<br><br>**Financing the Transition**<br><br>• In order to incentivize innovation and investment in the real economy, particularly in emerging markets investors increase portfolio weighting dedicated to climate solutions including blended finance supporting climate resilience, adaptation and nature-based solutions at sub-national and local levels<br><br>• Asset owners look to allocate patient capital to breakthrough climate solutions that will assist later stage decarbonization efforts such as hydrogen, synthetic fuels and carbon removal including nature-based solutions. | current and breakthrough technologies. | |
| *Insurance & Underwriting*<br><br>(1/2) | **Transitioning Finance**<br><br>• Adopt the UN Principles for Sustainable Insurance's approaches to climate risk (Physical, Transition &<br><br>• Litigation).<br><br>• Request TCFD aligned disclosure from all high emitting counterparties to accumulate and aggregate necessary | **Transitioning Finance**<br><br>• Climate related physical and transition risk is embedded in actuarial models and underwriting standards.<br><br>• Begin embedding climate and sustainable principles in credit enhancement for securitized products and operations. | **Transitioning Finance**<br><br>• Insurance companies develop products to incentivize decentralized water and energy systems that would reduce operating expenses and risk and help ensure a just transition.<br><br>• End credit enhancement of securitization vehicles of assets and | **Transitioning Finance**<br><br>• All insurance products are reflective of full integration of climate risk and resilience in actuarial models and underwriting standards. |

| | By 2021 | By 2025 | By 2030 | By 2040 |
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| *Insurance & Underwriting* (2/2) | data to properly assess climate risk in companies and assets.<br>• Insurance underwriters begin to accurately integrate climate risks in their assessments, and work with governments at all levels to ensure affordable coverage without market distortion.<br>• Insurance underwriters commit to eliminate deforestation impacts across all underwriting activities | • Deforestation impacts have been eliminated from underwriting activities, with ongoing monitoring/tracing to avoid backsliding<br>**Financing the Transition**<br>• Develop Insurance products for circular business practices and supply chains including credit enhancement of securitization vehicles related to green cashflows such as green finance and renewable energy.<br>• Develop insurance products that incentivize the transition to zero emissions homes and vehicles.<br>• Begin working with banks, governments, and companies to define and deal with stranded assets. | cashflows that are not in line with net zero and climate resilient pathways. | |
| *MDBs, DFIs & Innovation Funding* (1/2) | **Transitioning Finance**<br>• All MDBs, DFIs and innovation funding programs to commit to net zero financed emissions and climate resilient investments, to send price signals to innovators and developers.<br>• All MDBs and DFIs commit to eliminate deforestation impacts across their investment portfolios<br>• Financing the Transition | **Financing the Transition**<br>• Become 'cornerstone' investor in securitizations of green and transition finance particularly in jurisdictions with low credit ratings.<br>• Deforestation impacts have been eliminated from investment portfolios, with ongoing monitoring/tracing to avoid backsliding<br>• Finance and incentivize sustainable forest management including the protection of natural, primary, and | **Financing the Transition**<br>• Debt relief to catalyze climate mitigation and investment in developing countries, through "Green Recovery Facilities", using multilateral resources to negotiate green debt relief.<br>• Continue funding breakthrough climate solutions, incentivizing private capital to participate in rapid growth and transformation in the green economy and resilience programs. | **Financing the Transition**<br>• Incentivize projects that prioritize resilience and integrating circular economic principles to maintain ongoing net zero and non-exploitative principles respecting land use, water systems and biodiversity. |

| | By 2021 | By 2025 | By 2030 | By 2040 |
|---|---|---|---|---|
| *MDBs, DFIs & Innovation Funding*<br>(2/2) | • Incentivize development and scaling of CCUS and negative emissions technologies.<br>• Incentivize development and scaling of 'circular' solutions including industrial hubs and recycling of stranded assets.<br>• Provide Risk Mitigation Mechanisms (credit enhancement etc.) and incentivize discount pricing to commercial banks to deliver distributed energy resources and building retrofit finance with a focus on developing nations and local projects in poorer communities to ensure a just transition.<br>• In tandem with governments DFIs provide financial Risk Mitigation Mechanisms (e.g., credit enhancement) and non-financial 'Transaction Enablement Mechanisms' (e.g. expert and technical assistance) for sub national governments and local projects<br>• Innovation funding to increase into scaling climate solutions such as Green Hydrogen, Direct Air Capture and CCUS.<br>• Innovation funding to scaling community and distributed energy solutions as well industrial clusters that promote a circular economy to ensure a just transition. | intact forests, mobilizing significant resources and providing adequate incentives to developing countries to advance sustainable forestry management.<br>• MDBs Begin programs of Debt for Nature/ Environment swaps to encourage emerging markets to conserve forests as well as invest in sustainable industries (e.g., Renewable Energy, Sustainable Agriculture)<br>• Require access to multilateral funds and projects contingent on country-level climate action benchmarks (for e.g., progress against NDCs or other Paris/Glasgow-aligned goals) | | |

| | By 2021 | By 2025 | By 2030 | By 2040 |
|---|---|---|---|---|
| | • Allocate more catalyzing capital to financing adaptation and resilience projects to sub national governments, particularly in poorer communities as well as in climate vulnerable developing nations. | | | |
| *Service Providers & Advisors* (1/2)<br><br>*Service Providers & Advisors* (2/2) | **Transitioning Finance**<br>• Proxy advisors to recommend voting for resolutions requiring Climate Transition Action Plans from corporates for Annual General Meetings.<br>• Accounting and advisory firms to upskill staff in GHG.<br>**Accounting and sustainable Finance**<br>• Accounting and finance standards boards, designations and professional networks begin to integrate GHG accounting and climate risk into their pedagogy.<br>• Collaboration between various data providers in standardizing environmental data and metrics.<br>• Consulting firms who advise on net zero and sustainable finance commit to not advising companies or financiers that contradict these initiatives. | **Transitioning Finance**<br>• Ratings agencies to merge climate risk into overall credit ratings of companies.<br>• Consulting and advisory firms to work with companies and financiers in transitioning business models in line with climate action plans and net zero targets.<br>• GHG accounting standards are merged into international accounting standards.<br>• Exchanges to set minimum standards for listing, including disclosure and compliance with science-based net zero targets. | **Transitioning Finance**<br>• Exchanges enter a moratorium on in listing assets (and the companies that purchase them) divested during net zero alignment/ transition.<br>• GHG accounting and advisory is commonplace in all large and mid-tier professional services firms.<br>• Consultants continue work with governments, financiers and companies in business transformation to incentivize activities towards net zero goals. | **Transitioning Finance**<br>• Exchanges no longer list companies or asset vehicles that are not aligned with net zero targets. |
| **Corporates** (1/2) | **Transitioning Finance**<br>• Disclose Scope 1, 2 and 3 emissions to better understand climate risk. | **Transitioning Finance** | **Transitioning Finance**<br>• Agree to moratoriums on purchasing divested or technically ‘stranded’ | **Transitioning Finance**<br>• End contracts and partnerships with all companies in supply and value |

| | By 2021 | By 2025 | By 2030 | By 2040 |
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| **Corporates** (2/2) | • Begin integrating carbon pricing into management accounting.<br>• Commit to Net Zero emissions via approved, science-based initiatives and mechanisms to manage climate risk.<br>• Commit to submitting Climate Transition Action Plan at Annual General Meetings for an annual shareholder vote.<br>• Engage across supply chain to understand overall environmental impact of products and services and make more robust disclosure.<br><br>**Financing the Transition**<br>• Large corporations work with banks to develop sustainability linked supply chain products that reward practices in line with net zero such as disclosure, emissions reduction, transition plans and science-based targets, | • Set Science Based Targets for scope 1, 2 & 3 emissions with third party verification.<br>• Fully integrate GHG into management accounting and projections.<br>• Incentivize senior managers and executives with sustainable metrics included in performance bonuses and profit share.<br><br>**Financing the Transition**<br>• Begin working with govt., banks and civil society on understanding stranded asset risks and solutions and begin accruing future costs related to asset retirement.<br>• Work with suppliers and purchasers to build circular economic structures that reduce transport, waste, water use, deforestation, and energy consumption in line with a net zero future.<br>• Work with financiers and governments to provide risk off taking/ purchase contracts for climate solutions projects such as renewable energy, green hydrogen and negative emissions technologies. | assets or businesses that are not in line with net zero by 2050.<br>• Continue to integrate sustainability and circular business practices throughout supply chains.<br><br>**Financing the transition**<br>• Allocate a % of profit to climate solutions via either purchase contracts or corporate venture capital, with a focus on emerging markets where the company operates to ensure a just transition. | chains that do not have credible net zero transition plans and targets. |
| **Local Government Actors** | **Transitioning Finance** | **Transitioning Finance**<br>• Require Public Private Partnerships to have a net zero and climate resilient | | |

| | By 2021 | By 2025 | By 2030 | By 2040 |
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| (1/2)<br><br>**Local Government Actors**<br><br>(2/2) | • Cities and States to disclose TCFD-aligned assessments of risks and opportunities.<br>• Publicly owned asset managers to develop and submit net zero and low carbon portfolio plans, that also outline costs for related physical risk.<br>• Green Building and infrastructure standards to be implemented.<br><br>**Financing the Transition**<br>• Offer tax and other fiscal incentives for the development of Climate-related initiatives, such as tech and innovation hubs.<br>• Fund local/ community green banks to crowd in constituents' investment capital for climate adaptation and mitigation projects to foster buy-in at a local level. | profile or meet appropriate Paris-aligned emissions benchmarks.<br>• Incentivize clean energy and industry hubs that promote circular economic activity and enhance job opportunities.<br><br>**Financing the Transition**<br>• Local and subnational governments have in place a set of fiscal incentives (taxes/exemptions) to support SMEs, households, developers, and operators in prioritizing climate-proof infrastructure and actions by 2025, including Local Carbon Markets<br>• To shift financial barriers for project owners, public owned utilities to develop fee structures and incentives to support the transfer of capital cost, expense and revenues to offset an owner's upfront investment in climate resilient infrastructure.<br>• Develop risk transfer financial products and other incentives with FIs to encourage investment in net zero progress and climate resilience. | | |
| **Civil Society** | **Transitioning Finance**<br>• Advocate for mandatory disclosure from companies in the financial and real economies as well as governments to ensure that relevant data is available to begin the | **Transitioning Finance**<br>• Explore and provide third party assurance and verification science-based targets. | **Financing the Transition**<br>• Work on international co-operation on net zero aligned standards and financial regulation. | **Transitioning Finance**<br>• Continue to work with stakeholders on improving and upgrading climate risk and resilience models. |

| | By 2021 | By 2025 | By 2030 | By 2040 |
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| | transition to net- zero portfolio emissions and climate resilient investments.<br>• Continue development of robust and science-based frameworks to measure progress against net zero targets and ongoing reduction in Financial Institution portfolio emissions.<br>• Campaign asset owners and managers to submit Climate Transition Action Plans to shareholders for annual votes. | • Work with government, industry and banks to explore solutions for stranded assets with the view of forming securitization programs and national/ international 'bad bank' for workout / repurpose/ liquidation. | • Begin to investigate and work with governments, finance, and industry on ensuring the privatizing/ spinning off of non-net zero companies and assets does not result in a clandestine 'brown' economy. | |

# EXISTING INITIATIVES

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| Science-Based Targets for Financial Institutions | The finance sector is key to unlocking the system-wide change needed to reach net-zero.<br>With this framework, financial institutions can set science-based targets and align their lending and investment activities with the Paris Agreement. |
| Network for Greening the financial system | At the Paris “One Planet Summit” in December 2017, eight central banks and supervisors established the Network of Central Banks and Supervisors for Greening the Financial System (NGFS). Since then, the membership of the Network has grown dramatically, across the five continents.<br>The Network’s purpose is to help strengthening the global response required to meet the goals of the Paris agreement and to enhance the role of the financial system to manage risks and to mobilize capital for green and low-carbon investments in the broader context of environmentally sustainable development. To this end, the Network defines and promotes best practices to be implemented within and outside of the Membership of the NGFS and conducts or commissions analytical work on green finance. |
| Partnership for Carbon Accounting Financials (PCAF) | The Partnership for Carbon Accounting Financials (PCAF) is an industry-led initiative which enables financial institutions to consistently measure and disclose the absolute greenhouse gas (GHG) emissions associated with their loan and investment portfolios through GHG accounting. Currently, over 100 financial institutions (FIs) from more than 35 countries globally have joined the initiative. |
| Climate Safe Lending Network | The Climate Safe Lending Network is a transatlantic multi-stakeholder partnership of banks, NGOs, academics, investors and others aiming to accelerate the decarbonization of the banking sector to secure a climate-safe world. |
| Glasgow Financial Alliance for Net Zero (Part of Race to Zero, including the Net Zero Asset Owner Alliance, the Paris Aligned Investment Initiative and the Net Zero Asset Managers Initiative). | GFANZ brings together representatives from across the financial sector to coordinate efforts and promote a smooth but rapid decarbonization of the economy. Its members will include asset owners, asset managers, banks and insurance underwriters. Members will include all those that are, or will be, part of the Race to Zero. And GFANZ will facilitate engagement with other key actors from across the wider financial system and climate finance experts. |
| Paris Aligned Investment Initiative | The Paris Aligned Investment Initiative (PAII) was established in May 2019 by the Institutional Investors Group on Climate Change (IIGCC) at the request of asset owner members, it now involves over 110 investors representing $33 trillion in assets. As of March 2021, the initiative has grown into a global collaboration supported by four regional investor networks – AIGCC (Asia), Ceres (North America), IIGCC (Europe) and IGCC (Australasia). |
| Net Zero Investment Framework | Global investor groups to mainstream ‘net zero investing’, supporting investors with practical approaches to achieving portfolio alignment, through IIGCC’s Paris Aligned Investment Initiative. |

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| PACTA | Developed by 2° Investing Initiative with backing from UN Principles for Responsible Investment, PACT enables users to measure the alignment of financial portfolios with climate scenarios |

## FURTHER REFERENCES

| | |
|---|---|
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Impact 5

# Zero Carbon, resilient Infrastructure and Real Assets

MITIGATION / ADAPTATION

Nexus

Energy | Human settlements | Land use

7 AFFORDABLE AND CLEAN ENERGY | 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE | 10 REDUCED INEQUALITIES | 11 SUSTAINABLE CITIES AND COMMUNITIES | 12 RESPONSIBLE CONSUMPTION AND PRODUCTION

| | By 2021 | By 2025 | By 2030 | By 2040 |
|---|---|---|---|---|
| **Policymakers**<br>(1/3) | **Transitioning Finance**<br>• Begin developing a framework for Sustainable Infrastructure standards that promote net zero growth plus circular, climate resilient economies at scale.<br>• Begin integrating resilience and adaptation into infrastructure standards to account for climate change.<br>• Moratorium on sovereign funding of coal plants.<br>• Ban use of fossil fuels in new buildings, with incentives for | **Transitioning Finance**<br>• Implement sustainable infrastructure standards that enforce net zero buildings and promote circular and climate resilient economic activities.<br>• Set macroprudential green mortgage standards for residential and commercial buildings, with existing buildings applied lower loan to value ratios pending retrofits, which are incentivized via government schemes and green banks.<br>**Financing the Transition** | **Transitioning Finance**<br>• Resilience and adaptation is fully integrated into infrastructure standards to account for climate change.<br>• Enact a moratorium on all new fossil fuel projects where a viable solution exists.<br>• Ban on sale of all new fossil fuel vehicles by 2030/ 2035.<br>**Financing the Transition**<br>• Begin issuing bonds to refinance stranded assets. | **Transitioning Finance**<br>• Ban all fossil fuel projects unless in line with NDCs (e.g., backup generation, effective CCUS paired with effective negative emissions). |

| | By 2021 | By 2025 | By 2030 | By 2040 |
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| **Policymakers**<br>(2/3) | electrification and demand side management.<br>• Understand how uptake of net-zero infrastructure can be incentivized across its lifecycle - investment, production, adoption, refurbishment and extending the lifespan of infrastructure.<br>• Work with NGOs, insurers, and the construction industry to build public confidence in effective measures and codes of practice for protecting infrastructure from environmental shocks.<br>• Ensure that national net zero and climate resilience strategies consider investment needed to develop a skilled workforce capable of delivering net zero and climate resilient infrastructure needs, in partnership with businesses, skills providers and unions.<br><br>**Financing the transition**<br><br>• Governments at all levels collaborate with financial institutions to put in place technical assistance funding for early-stage system-scale planning, and project preparation focused on sub-national infrastructure projects.<br>• Provide fiscal incentives for green infrastructure, including distributed energy resources and building | • Governments at all levels facilitate the securitization of stranded assets, encouraging repurposing and retrofitting (e.g., carbon/ energy storage in used oil wells/ salt caverns - hydrogen and syngas transport via natural gas pipelines.)<br>• Evaluate how changes to the tax system could incentivize a shift in investment towards net-zero infrastructure and pay for infrastructure plans.<br>• Provide incentives for distributed renewable energy resources for single & multifamily dwellings as well as communities' projects to accelerate grid modernization and provide a just transition to vulnerable communities and developing economies.<br>• Increase proportion of labelled bond issuance to finance investment in net-zero, climate resilient infrastructure.<br>• National, subnational, and local governments as well as finance institutions include and earmark specific budgets on local and subnational climate action planning and implementation.<br>• Governments and finance institutions dedicate financing for guarantees and credit enhancement mechanisms for local and subnational climate action projects. | | |

| | By 2021 | By 2025 | By 2030 | By 2040 |
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| **Policymakers**<br>(3/3) | retrofits for residential and commercial buildings.<br>• Promote innovation in physical and informational assets that contribute to net zero and resilient supply chain infrastructure including models and technologies that reduce the need for transportation.<br>• Work with MDBs and DFIs in providing concessional cornerstone finance into zero carbon, resilient infrastructure, and real assets to unlock private finance at scale, particularly in emerging markets to ensure a just transition in line with UN guiding principles on business and human rights.<br>• Include social safeguards/monitoring/access to remedy in technical assistance/blended finance<br>• Ensure that net zero strategies consider workforce skills development to deliver infrastructure needs particularly to retrain dislocated workers and minimize structural unemployment.<br>• Understand how uptake of net-zero climate resilient infrastructure can be incentivized across its lifecycle - investment, production, adoption, refurbishment and extending the lifespan of infrastructure | • Governments create and support domestic climate finance expertise hubs ("Fin Hubs") offering local and subnational governments the adapted and required professional advisory support to climate-compliant project preparation and deal closing by 2025, and connecting local and regional governments to existing project preparation facilities and initiatives, and technical assistance supply, including for local financial engineering innovation. | | |

| | By 2021 | By 2025 | By 2030 | By 2040 |
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| | • Invest in optimized usage and protection of natural infrastructure (e.g. forests, mangroves and rivers), in territorial planning, to reduce overall adaptation costs and preserve natural capital | | | |
| **Financial Institutions and Actors** | | | | |
| *Central Banks* | **Transitioning Finance**<br>• Central Banks indicate that companies and sovereign debt related to fossil fuel projects and infrastructure that are not aligned to net zero, climate resilient pathways, will not feature in their portfolios beyond 2025. | **Transitioning Finance**<br>• Implement green/ sustainable asset ratios that promote new green, climate resilient and retrofitted infrastructure.<br>• Divest from all company and sovereign debt related to fossil fuel infrastructure.<br>• Set macroprudential green mortgage standards for residential and commercial buildings, with existing buildings applied lower loan to value ratios pending retrofits, which are incentivized via government schemes and green banks. | **Transitioning Finance**<br>• With climate risk increasingly integrated into central bank mandates and activities, both bank and corporate financing of carbon intensive infrastructure projects and assets that do not account for physical risk, becomes increasingly untenable. | |
| *Banking and Lending*<br>(1/2) | **Transitioning Finance**<br>• Banks commit to end financing (including underwriting capital markets issuances) on new fossil fuel infrastructure and projects at all levels within corporate hierarchies (e.g., Parent, Subsidiary, Project/ Asset) in line with IEA NZE pathway. | **Transitioning Finance**<br>• Investment Banks commit to phasing out underwriting of fossil fuel project capital markets issuances by 2030 (at parent, subsidiary, and asset/ project level) Begin integrating embedded carbon and life cycle analyses of infrastructure and real assets into risk models and risk appetite statements. | **Transitioning Finance**<br>• End financing fossil fuel companies and projects that do not meet transition scenarios e.g., do not align with IEA NZE pathway.<br>• Robust data integration into risk models allows for accurate pricing of climate risk in infrastructure and real | **Financing the Transition**<br>• Loans only provided to new buildings and infrastructure projects that are net zero across the lifecycle including operational and embodied emissions.<br>• Infrastructure finance to include assessment of resilience in adapting to climate change through to 2100. |

| | By 2021 | By 2025 | By 2030 | By 2040 |
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| *Banking and Lending*<br>(2/2) | • Begin gathering data on physical and transition related climate risk in real assets to update credit risk models.<br>• In joining the Net Zero Banking alliance, begin steps towards the short-, mid- and long-term commitments therein.<br>• Join collaborative sector-based initiatives such as the Equator Principles for project finance and the Poseidon Principals for shipping, to assist in a just transition of assets and supply chains to net zero which integrates human rights per the UN Guiding Principles for the banking sector.<br><br>**Financing the Transition**<br>• Begin to grow EV consumer and commercial asset finance business, transforming products to consider total cost of ownership and integration of demand side management and distributed energy grids.<br>• Introduce price discounts on residential and commercial mortgages that meet green standards. and/or are refinanced with retrofit/ energy efficiency programs.<br>• Work with green banks/ DFIs on securitization vehicles for green asset finance and mortgages, integrating related cashflows from demand side | • Build financial assessment models that accurately reflect synergistic effects of circular and climate resilient economies.<br>• Begin to include destruction of carbon sinks into a full lifecycle assessment of extractive industries providing rare earth metals for renewable energy infrastructure and electrified transport assets.<br>• Work with central banks, civil society, and governments on dealing stranded assets over the next decade.<br>• Implement sector based decarbonization methodologies for financed emissions.<br>• Banker remuneration to be linked to sustainability and transition metrics.<br>• Executive leadership payments and retention schemes to be tied to transition plans and science-based targets.<br><br>**Financing the Transition**<br>• Senior Debt syndicates commit to follow innovation funding into climate solutions to advance net zero and climate resilient pathways where DFIs and MDBs provide credit enhancement and/or cornerstone investment. | assets, making financing outside of net zero climate, resilient pathways uncommercial.<br>• Destruction of land and ocean carbon sinks fully integrated into risk assessment and sustainability/ transition linked products.<br>• Human rights fully integrated into lending practices to ensure a just transition.<br><br>**Financing the Transition**<br>• Banks commit to only finance new assets and infrastructure (including production facilities) that are net zero carbon unless no suitable alternatives exist.<br>• Risk and carbon accounting models divert finance to companies that are verified to be climate friendly, which includes land, waterway, and ocean use, making extractive and infrastructure development activities that deplete carbon sinks no longer financially viable. | |

| | By 2021 | By 2025 | By 2030 | By 2040 |
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| | management and distributed energy resources. | • End new asset finance facilities on carbon intensive assets (vehicles, fleet, ships, planes, machinery etc.) where viable alternatives exist. | | |
| *Investment*<br>(1/2) | **Transitioning Finance**<br>• In line with Net Zero commitments investors set sectoral targets for: high emitting sectors (e.g. oil & gas, utilities, transport, civil aviation, shipping, road transport, steel etc.).<br>• Commit to end financing of all new coal and fossil fuel infrastructure at all hierarchies in the corporate tree.<br>• Develop and implement a corporate engagement strategy, including a net zero voting policy and clear milestones and an escalation strategy that leads to investment, weighting and divestment decisions.<br>• Investors engage with infrastructure companies and projects to ensure their development pipeline is in line with their net zero commitments, reducing the amounts of 'committed carbon' embedded in infrastructure.<br>**Financing the Transition**<br>• Per Net Zero commitments, focus infrastructure investing on renewable energy in Emerging Markets, Green Buildings, Sustainable Forests, and Green Hydrogen, among others. | **Transitioning Finance**<br>• Divestment of all fossil fuel related companies and projects where no credible transition plan is in place.<br>• Divest from companies that employ destructive mining practices (e.g., open -pit mining in forests)<br>• Divestment of all coal infrastructure assets<br>**Financing the Transition**<br>• Asset owners Increase allocation of investments in Emerging Markets, Green Buildings, Sustainable Forests, and Green Hydrogen, among others<br>• Hedge funds and other private financing vehicles (private debt, equity etc.) commit to not purchasing or refinancing fossil fuel related divestments.<br>• Begin investing alongside development banks, governments, and other partners in investing in climate solutions to advance net zero and climate resilient pathways. | **Transitioning Finance**<br>• End financing of fossil fuels in line with Net Zero commitments.<br>**Financing the Transition**<br>• Asset owners allocate a proportion of assets into those emergent climate solution technologies (e.g., CCUS, DAC, Green Hydrogen and Nature Based Solutions) that are at higher Technology Readiness Levels in order to accelerate their scaling for nations and corporates to use in their Net Zero pathways. | **Financing the transition**<br>• Consumer and stakeholder demand means Increasing amounts of capital are allocated to protecting and integrating 'Green and Blue' infrastructure's natural carbon sinks (forests and oceans), incentivizing growth within planetary boundaries. |

<table>
<tr><th></th><th>By 2021</th><th>By 2025</th><th>By 2030</th><th>By 2040</th></tr>
<tr><td>Investment<br>(2/2)</td><td><ul><li>Venture Capital, Charitable trusts and endowments increase their allocation in breakthrough climate solutions hard to abate sectors and for negative emissions technologies.</li><li>Establish working relationships with development banks, governments and other partners in investing in climate solutions.</li></ul></td><td></td><td></td><td></td></tr>
<tr><td>Insurance & Underwriting</td><td>Transitioning Finance<ul><li>End insurance and underwriting of new fossil fuel infrastructure in developed countries.</li><li>Begin a paradigm shift in underwriting standards to deal with the step-change of physical risk, to send price signals to investors in infrastructure and assets (government, corporate and financial) to divert capital to low/ zero carbon projects and assets that help de-escalate climate risk.</li><li>Begin work in risk mitigation as opposed to risk transfer to drive resilience in climate vulnerable countries and regions.</li></ul>Financing the Transition<ul><li>Develop products to provide credit enhancement for aggregated cashflows of green infrastructure and</li></ul></td><td>Transitioning Finance<ul><li>Adjust risk premiums to sectors, systems and models that demonstrate the long-term risk mitigation of investment in resilient infrastructure.</li></ul>Financing the Transition<ul><li>Insurers engage with FIs and corporates in workable solutions to ensure infrastructure and assets being retrofitted and repurposed, particularly where offtake markets may be nascent, to minimize the need for last resort stranding of these assets and ensuing financial losses.</li><li>Business insurance premiums incentivize lowering emissions in supply chain infrastructure, promoting circular economic activity and reflecting long term risk mitigation,</li></ul></td><td>Transitioning Finance<ul><li>Insure-tech platforms and actuarial models have now evolved to a point where resilience, mitigation and adaptation are built into physical risk, so all new insured projects and assets include climate risk principles and focusses capital expenditure on zero carbon resilient infrastructure.</li></ul>Financing the Transition<ul><li>Insurance products are tied to transition themes, incentivizing capital expenditure on transitioning as opposed to stranding of assets and bolstering resilience and adaptation of infrastructure and real assets.</li><li>Insurers work with governments in PPPs focused on resilience and mitigation in climate vulnerable countries and regions, to help</li></ul></td><td>Financing the Transition<ul><li>Insurance of infrastructure for adaptation and resilience begins to overtake mitigation principles with physical risk trajectory better understood and transition risk fully integrated into actuarial models and underwriting standards.</li></ul></td></tr>
</table>

| | By 2021 | By 2025 | By 2030 | By 2040 |
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| | which promote circular business models and sustainable growth.<br>• Begin working with local governments on emerging uninsurable buildings and communities due to increasing extreme weather events, to ensure a just transition. | | 'prefunding' disaster relief to help ensure a just transition. | |
| *IFIs, DFIs & Innovation Funding*<br>(1/2) | **Transitioning Finance**<br>• Create standards and assessment criteria to preserve and grow carbon sinks that recognize 'green and blue infrastructure' (i.e. afforestation and sustainable land use, water management and preservation of waterways and oceans).<br>• Public finance institutions to include social safeguards, ongoing monitoring and access to remedy to ensure funds are not only used for 'green' or 'transition' purposes but ensure a just transition that respects human rights.<br>**Financing the Transition**<br>• DFIs provide guarantees and pricing incentives to commercial banks to promote green infrastructure and retrofits.<br>• DFIs are cornerstone investors in zero carbon infrastructure projects | **Transitioning Finance**<br>• Implement green and blue standards and assessment criteria.<br>**Financing the Transition**<br>• Prioritize financing projects that have strong mitigation and adaptation aspects such as CCUS and DAC.<br>• Fund innovation and scaling in international transport sectors such as aviation and shipping and associated infrastructure.<br>• Crowd-in investment in low/ zero carbon innovations in hard to abate industries such as cement, steel, aluminium, and plastic replacements.<br>• SDBs share data on local climate finance flows, playing a key role in catalyzing investment local net zero projects/action plans<br>• Invest in climate resilient water management infrastructure founded | **Financing the Transition**<br>• MDBs begin to focus on investing in and providing credit enhancement for resilient critical infrastructure based on localized/distributed circular economic models in developing nations, to crowd in private capital and to fuel sustainable growth, bringing billions out of poverty.<br>• MDBs provide debt for environment swaps to developing economies to restructure debt on stranded or carbon intensive infrastructure.<br>• SDBs are ingrained as entry points for financing local projects - The Global Alliance for SDBs has built strong domestic pipelines of projects, growing the market for subnational climate financing for both public and private investors.<br>• 'The last 10%' becomes an area of focus for innovation funding and DFIs to move away from all fossil fuels in energy grids by 2040. | **Financing the Transition**<br>• As net zero grows nearer, focus moves to adaptation and resilience measures.<br>• The proliferation of new infrastructure is scaled back where growth for 'growth's sake' is out of line with population and community needs, with a focus on galvanizing transformed infrastructure, assets and supply chains that promote circular economies and continue a just transition. |

| | By 2021 | By 2025 | By 2030 | By 2040 |
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| *IFIs, DFIs & Innovation Funding*<br>(2/2) | including critical resilience infrastructure, catalyzing PPPs.<br>• Subnational Development Banks (SDBs) act as intermediaries and support institutions local access to climate financing: The Global Alliance for SDBs sets its roadmap for action in different continents and creates momentum for better integration in the "*glocal*" (globally connected, locally focussed) climate finance value chain.<br>• Provide funding for scaling of 3D printing and VR technologies to encourage sustainable supply chains.<br>• Provide guarantees and cornerstone investments, in emerging markets for blended finance in renewable energy and related infrastructure projects to crowd out fossil fuel projects and ensure a just transition in line with UNPG considerations, which respects human rights in less energy secure nations and communities.<br>• Have in place project preparation facilities focused on subnational infrastructure projects, with attention to early-stage project development and resilience assessment.<br>• MDBs and DFIs to increase commitments to financing adaptation and resilience projects particularly for the most vulnerable groups and communities. | on robust, inclusive and effective water governance systems.<br>• Begin financing distributed energy grid infrastructure with banks, investors and governments that includes EVs and Demand Side Management. | • High emitting sectors, where solutions with high technology readiness levels but require significant investment to scale begin to attract large amounts of capital from DFIs and Private Investors and capital is reallocated to climate solutions. | |

| | By 2021 | By 2025 | By 2030 | By 2040 |
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| | • Innovation finance to fund development of Green H2, syngas and zero carbon fuel alternatives to assist in hard to abate sectors like aviation, shipping and cement and steel manufacturing. | | | |
| *Service Providers & Advisors* | **Transitioning Finance**<br>• Ratings Agencies, Data Providers, and consulting firms to work with Financial Institutions and civil society in exploring what information is still required to properly price in climate risk and direct capital in transitioning to zero carbon and climate resilient infrastructure.<br>• Consultants and advisors to end advising and arranging finance for fossil fuel companies and projects that operate outside of net zero pathways. | **Transitioning Finance**<br>• Ratings Agencies embed climate related physical risk and transition risk for infrastructure and real assets into credit risk and ratings models to assist in moving capital to zero carbon, climate resilient infrastructure. | **Transitioning Finance**<br>• Exchanges signal intention to delist securities related to assets and infrastructure (e.g., REITs, Airports) that are not aligned with net zero and climate resilient pathways. | |
| **Corporates**<br>(1/2) | **Transitioning Finance**<br>• Request TCFD aligned disclosure from supply and value chains to understand the transformation in physical and technology infrastructure.<br>• Work with banks on creating sustainability linked supply chain products that reward net zero climate ambition and setting of science-based targets. | **Transitioning Finance**<br>• Executive leadership payments and retention schemes to be tied to transition plans and science based targets.<br>**Financing the Transition**<br>• Corporates commit an increasing budget to procuring emerging climate solution related infrastructure such as | **Financing the Transition**<br>• Corporates invest in and promote circular economic activities in emerging markets in which they participate.<br>• Fossil fuel companies work with governments and civil society in repurposing stranded assets to assist with job retraining as part of asset securitization programs. | **Transitioning Finance**<br>• All corporates, who now adhere to their science-based targets and integrate climate risk and resilience into BAU, no longer use or generate revenues from carbon emitting technology and assets without contributing to negative emissions activities or offsetting within strict guidelines. |

| | By 2021 | By 2025 | By 2030 | By 2040 |
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| **Corporates** (2/2) | **Financing the Transition**<br>• Commit to 100% renewable energy procurement by 2030.<br>• Invest in or purchase services from negative emissions technologies.<br>• Begin procuring sustainable supply chain infrastructure and circular, resilient economic principles that minimize unnecessary transport and waste | green hydrogen and negative emissions technologies to assist with scaling these solutions to meet net zero goals.<br>• Corporates participate in and lead community renewable energy by committing to long term PPAs and joining PPPs. | | |
| **Local Government Actors** (1/2) | **Transitioning Finance**<br>• Ensure that all new buildings and infrastructure, as well as renovations and retrofits, meet high environmental standards for net zero compliance and resilience to local environmental risks<br>• Commit that all new public transport infrastructure, next generation mobility plans and transport services will be in line with net zero emissions by 2050.<br>• Ensure social safeguards are effectively integrated into renewable energy auctions, local government procurement of renewable energy, and land permitting for use by climate solutions including renewable energy. | **Transitioning Finance**<br>• Ensure that public and private financial investments in city planning, infrastructure and operations incorporate green spaces, green infrastructure and other nature-based solutions.<br>• Prepare climate adaptation plans to signal to private companies and financiers where investment is needed.<br>**Financing the Transition**<br>• National, subnational, and local governments as well as finance institutions include and earmark specific budgets on local and | **Transitioning Finance**<br>• Local government laws encourage circular economic activities and local constituent participation in investment into zero carbon infrastructure (e.g. ability to invest in bonds for local renewable energy hubs) to ensure broad based buy-in and a just transition.<br>**Financing the Transition**<br>• Generate multiple revenue streams from benefits such as improved stormwater migration and increased carbon sequestration on individual urban green infrastructure projects. | **Transitioning Finance**<br>• Local Governments are carbon neutral and all infrastructure and building standards are in line with net zero pathways. |

| | By 2021 | By 2025 | By 2030 | By 2040 |
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| **Local Government Actors**<br><br>(2/2) | **Financing the Transition**<br><br>• Set net zero targets for procurement of materials related to infrastructure (e.g., cement, steel) to help catalyze low carbon innovation in these sectors.<br><br>• Issue labelled bonds with funds used to provide critical zero carbon and resilient infrastructure.<br><br>• Explore securitization of stranded assets in local government owned infrastructure.<br><br>• Invest in infrastructure in local value chains that improves capacity to compete in sustainable global value chains.<br><br>• Approve planning for walking, cycling on LEV sharing infrastructure and services.<br><br>• Improve waste management and recycling services and explore low/ zero carbon energy from waste plants. | subnational climate action planning and implementation.<br><br>• Governments and finance institutions dedicate financing for guarantees and credit enhancement mechanisms for local and subnational climate action projects.<br><br>• Governments create and support domestic climate finance expertise hubs ("FinHubs") offering local and subnational governments the adapted and required professional advisory support to climate-compliant project preparation and deal closing by 2025, and connecting local and regional governments to existing project preparation facilities and initiatives, and technical assistance supply, including for local financial engineering innovation.<br><br>• Commit to purchasing an increasing percentage of low carbon materials for infrastructure development.<br><br>• Requests for Proposals for public tenders to include life cycle analysis and account for embedded carbon.<br><br>• Begin conversion, replacement and retrofit of public transportation infrastructure to align with net zero goals.<br><br>• Form PPPs with commercial and development banks in providing integrated distributed energy infrastructure that includes EV | | |

| | By 2021 | By 2025 | By 2030 | By 2040 |
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| | | charging and demand side management. | | |
| **Civil Society** (1/2)<br><br>**Civil Society** (2/2) | **Transitioning Finance**<br>• Work with governments, corporates and financial institutions to collect available data and insights to allow for credible science-based transition plans and targets.<br>• Work with the finance industry and policy makers to ensure all new infrastructure spend in the pandemic recovery is focused on the transition to net zero, climate resilient infrastructure and future emissions aren't locked into once-in-a-generation spending plans.<br>• Promote renewable energy procurement for corporations.<br>• Work with governments, communities and the finance industry to promote community renewable energy schemes.<br>• Work with corporates, governments, and financial institutions to widen the options available to them to invest in and adopt key technologies necessary to help them meet their science-based transition plans and targets.<br>• Support the creation of a mechanism to validate corporate and financial institution valuations for investment into emerging climate technologies that takes into account the future | **Transitioning Finance**<br>• Begin working with Financial Institutions, Governments and corporates on securitization and/or repurposing of assets that will become stranded in adhering to net zero commitments over the next two decades.<br>• Work with MDBs and DFIs on creating industrial hubs and community renewable energy schemes that ensure a just transition, particularly for the most vulnerable groups and communities.<br>• Support mainstream adoption of mechanism for verification and validation of corporate claims for investment into climate technologies and net zero infrastructure | **Transitioning Finance**<br>• Provide a counterbalance to public and private interests and push to increase ambition in each sector, to ensure warming is limited as much as possible.<br>• Increase advocacy for investment in adaptive and resilient infrastructure in developing nations and regions to ensure a just and balanced transition that protects communities and provides employment opportunities. | **Transitioning Finance**<br>• Continue to 'move the discussion' forward and move horizons beyond net zero and 2050 to ensure that future planning for infrastructure and assets considers new challenges for future generations. |

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| | value of their contribution to climate action.<br>• Ensure that government green infrastructure plans are specific and contain quantifiable actions with dates for completion, as opposed to being solely strategic, and hold them to account.<br>• Work with insurers and industry to build public confidence in effective measures and codes of practice for protecting infrastructure from environmental shocks. | | | |

## EXISTING INITIATIVES

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| The Equator Principles | The Equator Principles (EPs) is a risk management framework, adopted by 118 financial institutions, for determining, assessing and managing environmental and social risk in projects and is primarily intended to provide a minimum standard for due diligence and monitoring to support responsible risk decision-making.<br>The EPs apply globally, to all industry sectors and to five financial products: 1) Project Finance Advisory Services, 2) Project Finance, 3) Project-Related Corporate Loans, and 4) Bridge Loans and 5) Project-Related Refinance, and Project-Related Acquisition Finance. The relevant thresholds and criteria for application is described in detail in the Scope section of the EPs. |
| UK Centre for Greening Finance and Investment | The UK Centre for Greening Finance and Investment (CGFI) is a national centre established to accelerate the adoption and use of climate and environmental data and analytics by financial institutions internationally. It will unlock opportunities for the UK to lead in greening finance and financing green. |
| CRREM Carbon Risk Real Estate Monitor Pathways: | The CRREM tool helps to identify which properties will be at risk of stranding due to the expected increase in the stringent building codes, regulation, and carbon prices. It also enables an analysis of the effects of refurbishing single properties on the total carbon performance of a company. |

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| Global Alliance for Subnational Development Banks | The Global Alliance is a multi-stakeholder coalition of SDBs and Central governments and development partners for professional intermediated access to climate finance for Local and Regional Governments, led by Cameroon, RIAFCO (the African Alliance of Subnational Development Banks) and it is led by FMDV that supports to day 2 regional Alliances of SDBs in Africa and Latin America. The Global Alliance is a flagship programme of the UN Secretary General's Leadership for Urban Climate Investment initiative (LUCI) |
| Nedbank's (SA) Fossil Fuel Pathway | Nedbank's energy policy is one of the most ambitious fossil fuel financing policies of any South African bank, and also appears to set a global leadership standard among large commercial banks, by avoiding the adoption of the standard "net zero by 2050" target, and instead aiming for zero fossil fuel exposure by 2045. |
| Glasgow Financial Alliance for Net Zero | The Glasgow Financial Alliance for Net Zero (GFANZ) brings together representatives from across the financial sector to coordinate efforts and promote a smooth but rapid decarbonisation of the economy. Its members includes asset owners, asset managers, banks and insurance underwriters. Members include all those that are, or will be, part of the Race to Zero. GFANZ facilitates engagement with other key actors from across the wider financial system and climate finance experts. |
| Blended Finance Call to Action | Net Zero Asset Owner Alliance members call on asset managers to build and work on blended finance vehicles collectively, to scale-up investments in climate solutions to ensure that capital flows to required projects for a net zero transition, to ensure a climate friendly path towards meeting the UN SDGs and to meet net zero asset owner needs in line with their fiduciary duty. |
| Poseidon Principles for Shipping Finance | The Poseidon Principles establish a framework for assessing and disclosing the climate alignment of ship finance portfolios. They set a benchmark for what it means to be a responsible bank in the maritime sector and provide actionable guidance on how to achieve this. |
| Cities Climate Finance Leadership Alliance | The Cities Climate Finance Leadership Alliance (the Alliance) is a multi-level and multi-stakeholder coalition aimed at closing the investment gap for urban subnational climate projects and infrastructure. |
| Resilience Shift | The Resilience Shift is creating a movement to bridge the infrastructure systems gap, to create a safe, resilient and sustainable future for all, in a world that is full of disruptive forces. With our network of members, partners and collaborators, we will inform and promote greater resilience through influencing policy, shaping practice and sharing learning, as a global hub for resilience best practice. |
| Resilient infrastructure for Sustainable Communities | Resilient Infrastructure & Sustainable Communities (RISC) is a cluster of public and private sector professionals focused on climate resiliency via delivery and finance of market-based green stormwater infrastructure across the Great Lakes region.<br><br>Comprised of municipal, state, and federal climate resilience leaders, the cluster leverages its common network and shared experience to offer a framework that leads to projects that improve water quality, climate resiliency, and positive socio-economic impacts. RISC is about scaling-up green stormwater infrastructure across the Great Lakes states. |

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| CDP Sustainable Infrastructure | Investments in urban infrastructure can tackle the climate crisis, spark COVID-19 economic recovery, create quality jobs, strengthen resiliency and address inequities in the built environment and infrastructure services — but designing and financing sustainability projects can be challenging. These resources were developed for local governments pursuing social equity in infrastructure, funding and financing sustainability projects, and other urban climate finance topics to equip and inspire your local government's climate action journey |
| International Municipal Investment Fund (IMIF) and Technical Assistance Facility (TAF) - UNCDF/UCLG/FMDV | An end-to-end project preparation facility (TAF) to support local governments to build their capacity, create an enabling policy environment to attract investment capital, and to generate a pipeline of revenue generating investments that will be financed by the IMIF, independently managed by Meridiam. |
| Regional Program in support of financial Decentralisation in the West African Economic & Monetary Union (WAEMU) region - FDMV | Support fiscal decentralisation and innovative financing strategies and mechanisms for local governments in the Region. 10 countries engaged (WAEMU member states + Tchad and Mauritania), a potential impact on 3000 local metropolitan and regional governments of the region. FMDV is a strategic partner of WAEMU for the implementation of these activities. |
| City Finance Lab –Finance Innovation Lab, CKIC, South Pole, FMDV | Support the adoption of innovative financing solution to accelerate the low carbon transition of European cities through technical assistance and financial engineering. Pioneered by Climate Kic and South Pole, FMDV is a strategic and operational partner of the CFL. |
| Projects coaching and Matchmaking Forums to connect local projects with potential investors - FMDV | Strengthen access to funding for local governments through city to city cooperation and projects coaching, connect the demand side for projects lead by central and local governments on sustainable urban services and infrastructure with the supply side for technical and financial solutions from DFIs, investors and service providers. |
| Subnational Climate Finance Expertise Program in Morocco (PEFCLI) - FMDV | Development of national Financial Expertise Hub (Fin Hub) integrated to the Ministry of Interior to provide technical and financial expertise to support the formulation of climate projects in Moroccan cities and regions (identification of technological solutions, definition of technical, economic and financial models to structure the investments) and to connect a pipeline of projects to national and international climate finance. |
| Living Labs | Development of small scale innovation to test the technical, economics and financial models to evaluate and prepare the scale up investment phase. It lowers the investment risks, attract potential investors and ensure the appropriation by the local authorities and the final users. |
| World Green Building Council - The Net Zero Carbon Buildings Commitment | The Net Zero Carbon Buildings Commitment (the Commitment) challenges business, organisations, cities, states and regions to reach net zero carbon in operation for all assets under their direct control by 2030, and to advocate for all buildings to be net zero carbon in operation by 2050.<br>By setting ambitious 'absolute' targets, the Commitment aims to maximise the chances of limiting global warming to below 2 degrees, and ideally below 1.5 degrees, by drastically reducing operational carbon from buildings. |

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| RE 100 | RE100 is the global corporate renewable energy initiative bringing together hundreds of large and ambitious businesses committed to 100% renewable electricity. |

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| GRESB | GRESB Assessments are guided by what investors and the industry consider to be material issues in the sustainability performance of real asset investments, and are aligned with international reporting frameworks, such as GRI, PRI, SASB, DJSI, TCFD recommendations, the Paris Climate Agreement, UN SDGs, region and country specific disclosure guidelines and regulations. |
| Port of Rotterdam CCUS Project | Porthos is developing a project to transport $CO_2$ from industry in the Port of Rotterdam and store this in empty gas fields beneath the North Sea. Porthos stands for Port of Rotterdam $CO_2$ Transport Hub and Offshore Storage. |

## FURTHER REFERENCES

| | |
|---|---|
| Intergovernmental Panel on Climate Change, Special Report: Global Warming of 1.5°C | |
| RMI - Securitization in Action: How US States Are Shaping an Equitable Coal Transition | LINK |
| World Green Building Council: Green Mortgage Standards | LINK |
| IEA Net Zero by 2050 – A roadmap for the Global Energy Sector | LINK |
| Banks and Human Rights: A legal Analysis | LINK |