Strengthening the Role of Ministries of Finance in Driving Climate Action

A Framework and Guide for Ministers and Ministries of Finance

SYNTHESIS REPORT | JULY 2023

The Coalition of Finance Ministers for Climate Action

The Coalition of Finance Ministers for Climate Action

The Coalition of Finance Ministers for Climate Action brings together fiscal and economic policymakers from more than 80 countries in leading the global climate response and in securing a just transition toward low-carbon, resilient development. All members of the Coalition have signed up to the six **Helsinki Principles** that promote national climate action, especially through fiscal policy and the use of public finance:

Read more at https://www.financeministersforclimate.org/

Report preparation

This synthesis report is based on a longer guide that has been a collaborative effort of more than 30 Ministries of Finance and other organizations. It is a Helsinki Principle 2 product, led by Finland and Rwanda.

The Grantham Research Institute on Climate Change and the Environment, London School of Economics and Political Science (LSE) was the key Institutional Partner supporting this work. Special thanks go to the many members and partners of the Coalition of Finance Ministers for Climate Action and other individuals and organizations who have shaped and directly contributed to this content.

For full author details and acknowledgements please see 71.

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Key messages for Finance Ministers and policymakers

- **Ministries of Finance have significant levers** they can pull to accelerate the climate action needed to deliver on the goals of the Paris Agreement and drive sustainable, inclusive and resilient development and growth—but these levers are not yet being fully utilized.
- **Bold climate action can be instrumental in helping Ministries of Finance achieve their core priorities** of macroeconomic stability, growth and responsible management of public finances, with major benefits including:
  - tackling escalating risks that have macro-critical consequences, including economic and budgetary shocks, and rising cost of capital;
  - enhancing economic and financial resilience;
  - generating significant growth and development opportunities including jobs and investment; and
  - delivering clean, secure and affordable energy and food.
- **Ministries of Finance have a window of opportunity** to mainstream climate action within their core functions of economic strategy, fiscal and financial policy. This will involve broad-ranging changes to strengthen governance and leadership, coordination and human and analytical capabilities.
- **A big part of the role of Finance Ministers is contributing to and supporting climate action** by other government departments and other stakeholders. To help Finance Ministers fully utilize the tools at their disposal, their role in driving climate action could be further strengthened and recognized through their mandates and climate governance arrangements.
- **Ministries of Finance have the experience to be the strong leaders the moment demands,** with many demonstrating visionary leadership and progress. Urgent and comprehensive action is needed to take this work further, and this report sets out a framework to guide this process.
- **Taking forward the priority actions will be critical to implementing the Helsinki Principles.** The Coalition of Finance Ministers for Climate Action has been created to support its members to do this.

Introduction

This report highlights the rationale for strengthening the role of Ministries of Finance in driving climate action and provides guidance on how to mainstream climate action into their core functions and capabilities.

Governments worldwide are facing an unprecedented series of crises: an economic crisis with slow growth, rising debt and challenges in recovering from COVID-19; a cost-of-living and energy crisis; and a climate crisis with ever growing climate and environmental hazards from floods and forest fires to extreme heat, droughts and collapsing biodiversity and nature loss. These crises are interlinked and need to be addressed concurrently.

Far-sighted leadership is now needed by the public and private sector to deal with these challenges and build a zero-carbon, climate-resilient economy. Reaching zero emissions by mid-century and adapting to the fast-changing climate will require no less than a fundamental reorganization of the global economy. It means the total decarbonization of key economic systems in energy production, cities, transportation, industry, water and agriculture (NCE, 2018). It will require reimagining coping mechanisms to adapt to the fast-changing climate and new ways to enhance resilience. These changes will demand a large increase and shift in investment, a significant push on innovation, and action across the whole of government and economy, supported by wide-ranging public policy reform and financing measures. New investment worth around US$4 trillion per annum[1] will be needed globally by 2030 to meet the goals of the Paris Agreement (Stern, Bhattacharya et al., 2021). Investment in emerging markets and developing countries (other than China) alone will need $2–2.8 trillion per year by 2030 (Songwe et al., 2022).

Ministries of Finance need to be at the heart of driving this economic transformation. From their position at the center of government, they coordinate economic strategy, design fiscal policy, and regulate the financial system. They must therefore be at the heart of promoting, coordinating and financing government-wide climate action. By increasing their focus on addressing climate change and protecting nature, Ministries of Finance will be better able to tackle the current series of interlinked crises they face and achieve their core objectives of macro stability, growth and the responsible management of public finances.

However, Ministries of Finance are not yet fully utilizing their powers to drive sustainable, inclusive and resilient growth. Strengthening their role in climate-related policymaking calls for Ministries of Finance to take bold steps to mainstream climate action into their core functions, including through reforming economic strategy, reforming fiscal policy through budget and tax measures, and reforming financing policy and the financial system. To do this, Ministries of Finance will need to undertake broad-ranging institutional and governance reforms to strengthen their leadership, coordination, human and analytical capabilities.

This report highlights the rationale for strengthening the role of Ministries of Finance in driving climate action and provides guidance on how to mainstream climate into their core functions and capabilities. It is divided into three parts:

- **Part A** explains why Ministries of Finance need to strengthen their role in driving climate action—and how their climate leadership can help them deliver on their core priorities.
- **Part B** presents a practical framework that Ministries of Finance can follow to mainstream climate action into their operations and drive the shift toward a zero carbon, climate-resilient future.
- **Part C** presents an overarching agenda to enable Ministries of Finance to make progress on mainstreaming climate action, suggesting ways to craft strategies for action tailored to their specific circumstances and local context.

This report is a synthesis of a longer guide produced by the Coalition of Finance Ministers for Climate Action (‘the Coalition’), which presents the evidence, arguments and country case studies included in this synthesis in more detail. By synthesizing the full report, we intend to provide Ministers and officials with a snapshot of a core agenda for action.

[1] $ indicates US dollars from hereon in, unless otherwise indicated.

The report is based on an extensive review of existing literature and interviews conducted with officials in Ministries of Finance from 17 countries (Bahamas, Chile, Denmark, Finland, Germany, Indonesia, Ireland, Jamaica, Malaysia, Rwanda, Spain, Korea, Philippines, Uganda, United Kingdom, United States, Uruguay), complemented by input from over 30 leading individuals and institutions, including those supporting the work of the Coalition, and 48 organizations and individuals that responded to a global consultation, launched at COP27, on the role of Finance Ministers in driving climate action. It aims to leverage and connect the six Helsinki Principles and offer guidance on their implementation.

Work on the role that Ministries of Finance should play to drive climate action is a rapidly evolving field and gaps in knowledge remain. This report should be seen as a starting point.

Helsinki Principles

All members of the Coalition of Finance Ministers for Climate Action have signed up to the six 'Helsinki Principles', which promote national climate action, especially through fiscal policy and the use of public finance:

Principle 1
Align our policies and practices with the Paris Agreement commitments.

Principle 2
Share our experience and expertise with each other in order to provide mutual encouragement and promote collective understanding of policies and practices for climate action.

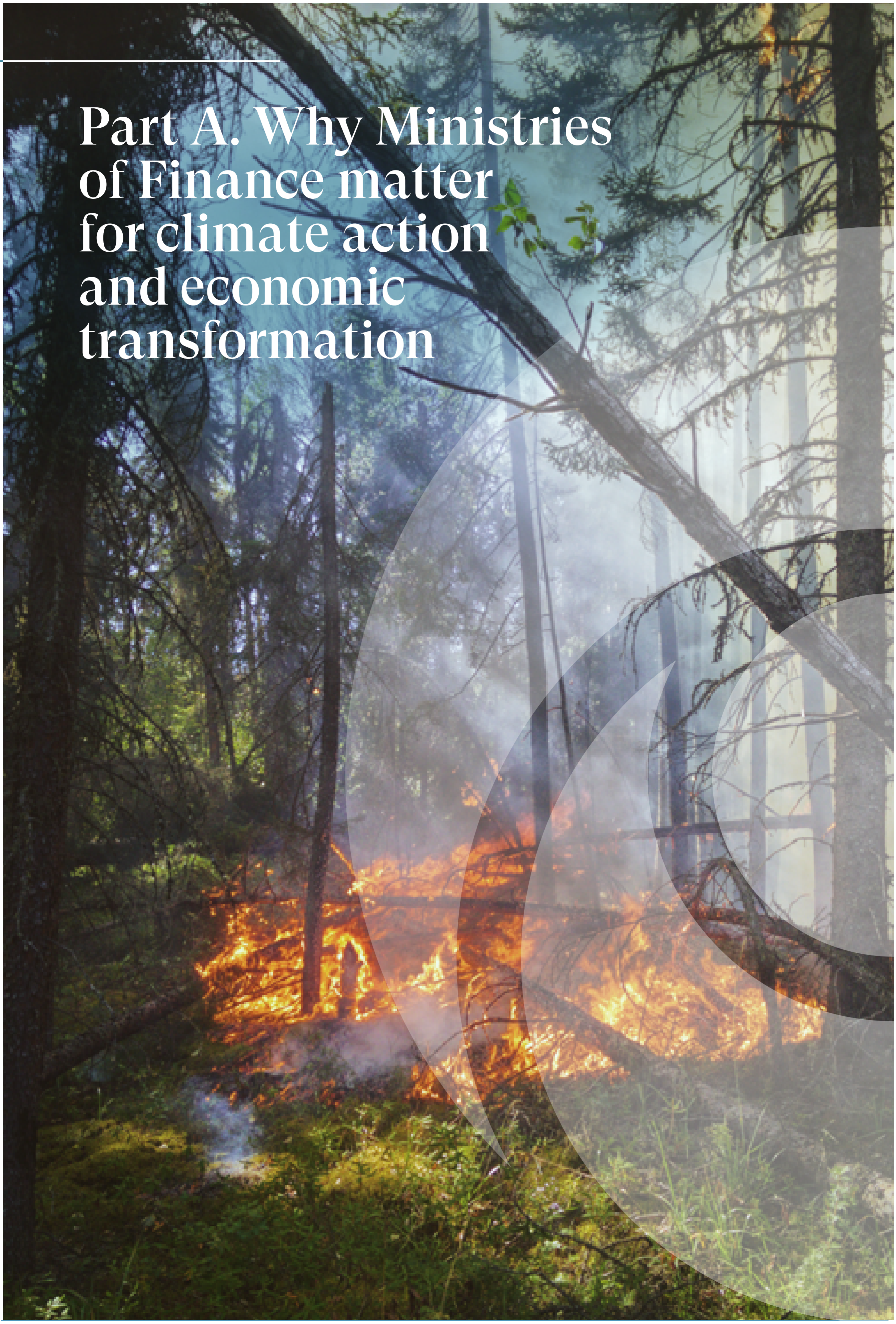
Principle 3
Work toward measures that result in effective carbon pricing.

Principle 4
Take climate change into account in macroeconomic policy, fiscal planning, budgeting, public investment management, and procurement practices.

Principle 5
Mobilize private sources of climate finance by facilitating investments and the development of a financial sector which supports climate mitigation and adaptation.

Principle 6
Engage actively in the domestic preparation and implementation of Nationally Determined Contributions (NDCs) submitted under the Paris Agreement.

Part A. Why Ministries of Finance matter for climate action and economic transformation



This part of the report presents a strategic agenda for action. It explains why Ministries of Finance need to strengthen their role in driving climate action, and how their climate leadership can help them deliver on their core priorities.

Read this to:

- Explore the benefits of taking climate action for Ministries of Finance
- Recognize the key levers available to Ministries of Finance to drive climate action
- Understand the key functions and capabilities that Ministries of Finance need to strengthen to drive climate action
- View a list of existing good practice from around the world

An opportunity to tackle multiple crises and drive economic prosperity

The world faces a growing climate crisis. Each successive report from the Intergovernmental Panel on Climate Change has shown that climate change is occurring at a faster pace and is having more severe impacts than previously anticipated. Under the Paris Agreement, the world has agreed to keep global temperatures within 1.5°C of the pre-industrial average, requiring greenhouse gas emissions to fall to net zero by 2050. Yet emissions keep rising, with the world currently on track to see a 10.6% increase by 2030, compared with 2010 levels (UNFCCC, 2022a). The speed of climate change is accelerating, and its impacts are more serious than anticipated, with growing climate hazards from floods and forest fires to extreme heat, droughts and collapsing biodiversity and nature loss (IPCC, 2023). Nature loss too, inextricably linked with climate change, is accelerating at unprecedented rates (IPCC, 2021).

At the same time, around the world national governments are struggling with a series of other crises. On top of the climate and biodiversity crises, the world is facing an economic crisis in the form of slow economic and productivity growth and tightening financial conditions, rising debt and challenges in recovering from COVID-19, and a cost-of-living crisis driven by high and rising energy and food price inflation and threats to energy security. These crises are interlinked and need to be addressed concurrently. Ministries of Finance will need to be at the heart of this effort.

Taking strong action on climate supports Ministries of Finance to deal with these crises—but more than that, to achieve their core objectives as well. Climate leadership will bring at least four major benefits to governments and Ministries of Finance:

1. Acting on climate will help to avoid escalating risks that could have macro-critical consequences

Without action, Ministries of Finance will have to deal with more frequent and intense economic and budgetary shocks as the physical impacts of climate change and global decarbonization adversely affect budgets, asset values, economic activity and jobs. A global temperature rise of 3°C could cause the world economy to shrink by 18% in the next 30 years, with expected losses of around 10% of the world's total economic value (SwissRe, 2021)—and this is likely to be a significant underestimate, given approaching tipping points. The failure to respond to climate-related risks is already leading to higher public expenditure on reconstruction of infrastructure, disaster relief, and write-downs of stranded assets: natural hazard-related catastrophes caused $2.98 trillion of damage between 2010 and 2019, 50% more than the previous decade (AON, 2021).

The changing climate has a material impact on sovereign risk, and the cost of capital in climate-vulnerable countries is increasing, threatening debt sustainability (Kling et al., 2018; Volz et al., 2020). Moreover, the drivers of climate change are rapidly depleting nature and biodiversity, undermining the natural capital on which our economy is based. Those negatively affected by climate impacts and the transition will face increased poverty; many are already being forced to migrate and displacement is set to increase (World Bank, 2018). Unless avoided, these impacts will make it harder for Ministries of Finance to deliver on their mandates and core priorities, including maintaining macroeconomic stability and responsibly managing public finances and debt.

2. Climate action can unlock significant growth and development benefits, while generating cost savings

By contrast, strong climate action by Ministries of Finance can help them drive growth and development. Indeed, the costs and risks from climate policies are not only manageable but are significantly outweighed by their benefits (IMF, 2022a) for the fight against poverty, and in unlocking strong, inclusive, resilient and sustainable development (Lankes et al., 2022). The economic argument for climate action becomes clearer by the day, through cheaper energy, job creation, and wider benefits for the economy, environment and society. For instance, recent estimates suggest that the transition to net zero could create new industries worth $10.3 trillion to the global economy by 2050 (Arup and Oxford Economics, 2023). Over the past decade the costs of large-scale solar projects have fallen by 85% and onshore wind by 56% (IRENA, 2021). By 2030, low-carbon solutions could be competitive in sectors accounting for nearly three-quarters of emissions (Systemiq, 2020). A transition to net zero can generate net benefits worth $26 trillion and create up to 65 million new jobs by 2030 (New Climate Economy, 2018). And it offers an opportunity to capture a wide range of environmental, social, gender and health benefits.

Ministries of Finance that act now will be able to benefit from new comparative advantages, growth and innovation opportunities—and they will be able to future-proof their revenue bases by identifying new sources of finance for investment in the new economy.

3. Investing in resilience against climate hazards can unlock a ‘triple dividend’ for the economy, society and environment

The key role Ministries of Finance can play in unlocking wide-ranging benefits from investing in adaptation and resilience is especially important. The impacts of global climate change are already evident in higher temperatures, acidifying oceans and increasingly frequent and more extreme weather events, carrying an ever-higher price tag. Investing in resilience can generate a so-called triple resilience dividend in the form of (i) avoided economic losses but also (ii) economic benefits and (iii) wider social and environmental benefits. The second and third of these dividends combined are often larger than the avoided losses, which is particularly important given that they accrue regardless of whether the actual climate risk materializes (Heubaum et al., 2022; Roezer et al., 2021). The Global Commission on Adaptation (2019) argues that investments of $1.8 trillion up to 2030 in improved warning systems, resilient infrastructure and water resources, improved dryland agriculture and mangrove protection could generate benefits of $8.9 trillion, a benefit–cost ratio of 4.8 to 1, and a net present value (NPV) of $7.1 trillion.

4. Investing in a sustainable and resilient energy system presents an opportunity to deliver clean, affordable and secure energy for all and fight inflation

The current macroeconomic environment and inflationary pressures further underscore the importance of Ministries of Finance supporting investment in the low-carbon future. Such investment is a big part of the answer to the current inflation and energy crisis: low-carbon energy is now at cost parity or cheaper than fossil fuel energy, it can create employment opportunities quickly and reduces vulnerability to global supply bottlenecks (IRENA, 2021; ILO, 2018). Investing in low-carbon energy infrastructure is also likely to generate substantial savings for national economies and enhance resilience to future shocks in the long run. A recent study suggests that switching from fossil fuels to renewable energy could save the world as much as $12 trillion by 2050 (Way et al., 2022). The full guide provides examples of countries and Ministries of Finance that are already successfully addressing the cost-of-living crisis, such as France, the United States and Lithuania, which are taking measures to drive the expansion to renewables. Some countries are already experiencing enhanced resilience to today's energy price shocks because of farsighted leadership taken a decade ago: Uruguay's Ministry of Finance has supported the transformation of its energy system to nearly 100% renewable electricity generation, which is likely linked to relatively moderate recent inflationary pressures.

The combination of these benefits and opportunities and avoided costs and risks means that Ministries of Finance can use climate action to unlock the 'development and growth story of the 21st century' (Stern et al., 2021). While climate action and economic development are sometimes considered to be competing goals, the evidence shows that with the right policies they can be mutually reinforcing. Well-designed climate action can provide considerable development benefits and help in the fight against poverty, enabling countries to make progress on achieving both the 2030 Agenda for Sustainable Development and the Paris Agreement (Lankes et al., 2022).

Far-sighted leadership would therefore see investment in creating the economy of the future, based on clean, affordable and secure energy, with cities and communities in which people can move and breathe easily. It can also help them to create an economy resilient to the impacts of climate hazards and that protects vital biodiversity and provides dynamic green industries and jobs. This future economy is firmly within the grasp of today's leaders.

The unique position of Ministries of Finance in the drive to net zero

Capturing these significant economic and wider benefits will require leadership by national decision-makers that has Ministers of Finance at its heart. Climate action requires major structural transformation in the world's economies. As government bodies at the center of coordinating economic, fiscal and financial policy, Ministries of Finance are uniquely placed to unlock the economic and social benefits from the transition. While no single Ministry of Finance is the same, they typically have a range of similar functions and capabilities that allow them to enable, and even drive, the kind of economy-wide transformation required to achieve a net zero, climate-resilient economy.

Ministries of Finance are often one of the few government institutions able to oversee a country's entire economy and all aspects of public policy. They help shape country visions, plans and investment strategies. They usually have direct control over macro-fiscal policy and regulatory functions including taxation, budget and debt management. They oversee the expenditure of all main government departments—giving them direct or indirect control over one-third of global GDP, worth well over $30 trillion.[2] They are shareholders and/or regulators of the activities of state-owned enterprises, sovereign wealth funds, and national and multilateral development banks and represent their countries in regional and global networks and coalitions. And they often play key roles—or have overall responsibility—in regulating the financial sector and in supporting the leadership of other actors. A successful transition to net zero will therefore only be possible with the active involvement and leadership of Ministries of Finance working hand in hand with other actors.

A big part of the role of Finance Ministers is in supporting and accelerating action by other government departments and private actors. Climate action requires structural transformation, investment and innovation across all sectors of the economy. This demands strong cross-agency collaboration and integrating climate action

[2] Government expenditure typically under the purview of Finance Ministries is ~30% of global GDP on average, totaling over $100 trillion (see Zouhar et al., 2021; and IMF WEO database).

into the decision-making of all government departments. Ministries of Environment, Energy, Transport, Planning, Development and many others have a critical part to play too—and many have been acting on climate for decades. Ministries of Finance need to match this effort and enable and support the climate leadership of other actors, including through budgets. It is especially important that the Ministries of Finance work alongside and support Ministries of Environment, Climate and Development in the key international climate processes and fora such as the UNFCCC Conference of the Parties, and in designing national climate strategies.

Ministries of Finance have not only the incentive to drive climate action to achieve their core objectives, but also the experience to do so. They can draw on their experience from responding to other major economic challenges where they have similarly taken a lead role in tackling immense risk and driving transformation. In the decades following World War II, Ministries of Finance, often together with planning ministries, public financial institutions and central banks, played a proactive coordinating role in industrialization-led economic transformation across many of today's wealthiest countries (Mikheeva and Ryan-Collins, 2022). Their response to COVID-19 and the 2008 Global Financial Crisis demonstrated that Ministries of Finance can be flexible, innovative leaders, tackling the challenges of the day to protect citizens and businesses. Ministries of Finance that can bring similar qualities to bear to tackle the climate crisis, and that rethink their role in responding to the defining challenge of our time, will be at the forefront of the transition to a net zero, resilient world.

The Coalition of Finance Ministers for Climate Action demonstrates that Finance Ministers can identify collective challenges and work jointly toward shared solutions. The benefits of the zero-carbon, climate-resilient economy can be captured more quickly and efficiently through collective efforts, on policies such as carbon pricing, international climate financing, investment in new technologies, and greening the global financial system. More than 80 Finance Ministers have already come together and signed the Helsinki Principles in recognition that the risks of climate change to economies are real and that their ministries hold important levers for accelerating climate action. Now, Ministries of Finance need to build on this leadership.

The urgent need for action and to scale up investment

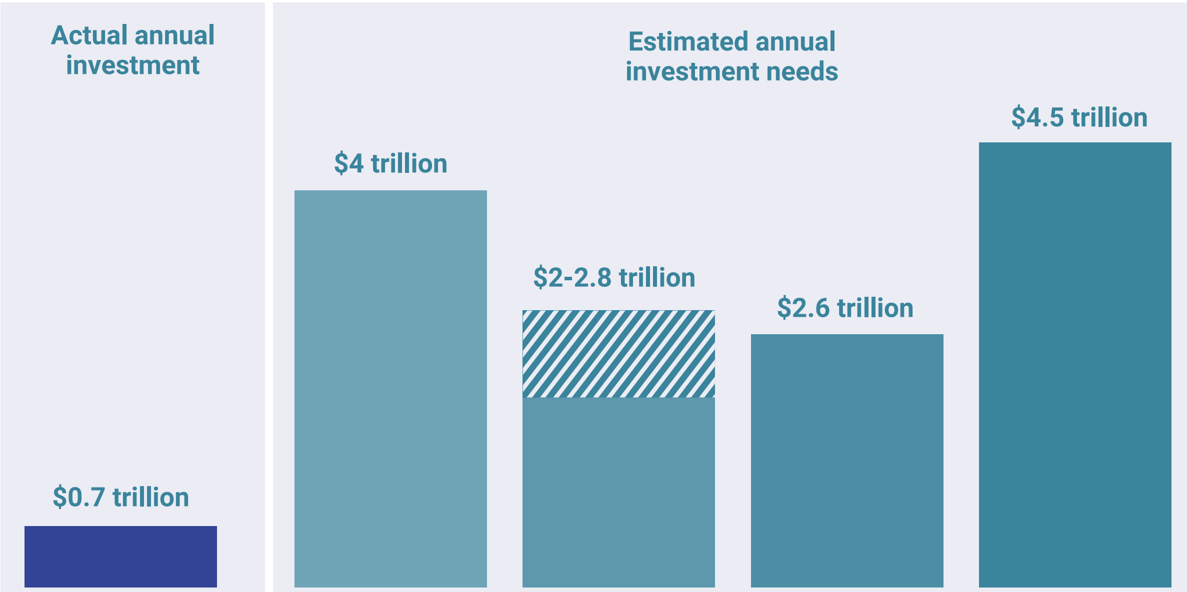
The window to avoid dangerous climate change is narrowing rapidly. Following an unprecedented drop of 5.4% in 2020, global greenhouse gas emissions have bounced back to pre-COVID-19 levels and continue to rise (Friedlingstein et al., 2021). Existing commitments still fall far short of delivering the 45% reduction in emissions scientists say is required by 2030 to avoid the worst impacts (IPCC, 2022). Implementation of current Nationally Determined Contributions (NDCs) points to a temperature rise of 2.4–2.6°C by the end of the century (UNEP, 2022b). Meanwhile, the IPCC makes clear that climate change has already caused "substantial damages and increasingly irreversible losses, in terrestrial, freshwater and coastal and open ocean marine ecosystems"—highlighting the connection between climate change and biodiversity—and that "the extent and magnitude of climate change impacts are larger than estimated in previous assessments" (IPCC, 2022).

There remains a substantial disconnect between the ambition of national climate strategies and the supporting policies and resources provided. Only around a quarter of the members of the Coalition of Finance Ministers are actively involved in all stages of the NDC development and implementation process (Coalition of Finance Ministers for Climate Action, 2020b). G20 governments provided nearly $600 billion annually on average in explicit fossil fuel subsidies from 2017 to 2019. Implicit subsidies, reflecting environmental costs and foregone consumption taxes, were as high as $5.9 trillion in 2022 (Parry et al., 2021). Globally, carbon pricing initiatives cover less than a quarter of emissions and prices are not sufficiently high to shift economy-wide incentives (World Bank, 2022b). And only 14 out of 35 OECD countries were practicing green budgeting in 2020/2021 (OECD, 2021c), with public procurement worth $11 trillion in 2018 still largely invested in higher carbon goods and services (World Bank, 2021).

Global investment to mitigate and adapt to climate change needs to be significantly increased. Climate action is characterized by structural transformation in all the key systems and related sectors of an economy (New Climate Economy, 2018). To achieve this transformation, countries will need to reverse the trends of slow growth, declining investment and low public spending that have followed the global financial crisis (Coalition of Finance Ministers for Climate Action, 2021b). This means shifting both the scale and composition of investment: increasing investments in all forms of capital—physical, human, natural and social, and ensuring that all investment is future-proofed and in line with a net zero, resilient future.

A range of investment estimates now exist,[3] covering different geographies and sectors. For example, Vivid Economics estimates global investment is needed of $2.6 trillion per year from 2021–2025 and $4.5 trillion per year from 2026–2050 in the energy and land use sectors (Vivid Economics, 2021). Similarly, estimates by Systemiq for Stern et al. (2021) suggest investment needs for the net zero and climate-resilient global economy amount to up to $4 trillion per annum between 2021 and 2030 in energy, agriculture, forestry and other land use (AFOLU), and adaptation and resilience. Estimates by Songwe et al. (2022) focused specifically on emerging market and developing countries other than China and covering energy, AFOLU, adaptation, resilience and loss and damage, suggest needs of $2–2.8 trillion per year by 2030 (see also Figure A1).

Figure A1. Actual current climate investment and different estimated investment needs



Source	CPI, 2022	Systemiq (in Stern et al., 2021)	Songwe et al., 2022	Vivid Economics, 2021	Vivid Economics, 2021
Timescale	2019-2020	2021-2030	By 2030	2021-2025	2026-2050
Sectors	Energy, transport, land use, buildings and infrastructure, industry, water and waste, cross-sectoral and others	Energy, agriculture, forestry and other land use (AFOLU), and adaptation and resilience	Energy, natural capital, adaptation, resilience and loss and damage	Energy and land use	Energy and land use
Region	Global	Authors	Emerging and developing countries other than China	Global	Global

Source: Authors

[3] See Table A2.2 in Songwe et al. (2022) for an overview. It is important to note that these estimates focus on energy transformation, and to a lesser extent natural capital. There is substantial uncertainty over the costs of adaptation and resilience, and loss and damage, given that the future impacts of climate change are difficult to predict, and there are no existing estimates of the costs for advanced economies.

These estimates suggest that investment needs to be increased and sustained above pre-pandemic levels by at least 2% of GDP per year, and 4–5% in emerging markets and developing countries, other than China (Stern et al, 2021; Bhattacharya et al, 2022; Songwe et al., 2022). Yet less than $653 billion in annual investment was deployed in 2019/20 (CPI, 2022), with a particular shortfall on adaptation finance, which is five to 10 times below current needs (UNEP, 2022a). Meanwhile, deep pockets of private capital remain largely untapped, hampered by market and non-market failures that lead to an undersupply of private capital for investment.

Investment priorities include (i) transforming major economic and emitting sectors, including the energy sector; (ii) strengthening adaptive capacity, building resilience and financing loss and damage; (iii) protecting and restoring natural capital, including sustainable agriculture, land use practices and conservation and biodiversity; and (iv) fostering a just transition that involves all people and ensures a fair and wide distribution of the benefits of the transition (Songwe et al., 2022).

The different proportions of capital that will need to come from public, private, domestic and international sources will vary by country and by investment category. Some estimates suggest around 70% of investments in the energy and land-use sectors can be provided by the private sector (Vivid Economics, 2021). But government has a major role to play too, particularly for investments in adaptation and resilience, new technologies and in countries with less developed capital markets, alongside putting in place the supporting policies and regulatory frameworks for private investment to materialize.

Mobilizing this investment push can be challenging, particularly in low- and middle-income countries, where fiscal space has been greatly reduced and debt distress is sometimes acute. And it will involve navigating trade-offs and competing priorities. The key challenge is designing investment programs that cut across multiple priority areas and simultaneously enhance growth, debt-sustainability and creditworthiness while advancing both development and climate action (World Bank, 2023).

The good news is that there is sufficient global capital and liquidity to close these investment gaps (IPCC, 2022) and Ministries of Finance can have some grounds for optimism in relation to available fiscal space. While over-indebtedness or lack of solvency is a challenge for some Ministries of Finance, most countries are suffering from liquidity and roll-over problems that can be overcome with the right strategies (Songwe et al., 2022). Support from the international community and incentivizing private finance will be essential (ibid.). But this agenda is not just about investing more: it is also about spending more wisely and shifting away from investments that lock in unsustainable development pathways.

Delivering this funding will require nothing less than a transformation of the global financial system, as Parties explicitly recognized for the first time at COP27. Ministries of Finance will need to be drivers of this transformation. They have a key role to play in raising and redirecting public and private capital toward climate action by producing clear national strategies and investment plans, creating the right fiscal policies, and upgrading financial instruments within responsible macroprudential frameworks. They also hold considerable leverage over key actors in the financial system, including central banks, commercial banks, and multilateral development banks, and can encourage them to shift toward a financial system aligned to net zero.

This agenda is not just about investing more: it is also about spending more wisely and shifting away from investments that lock in unsustainable development pathways.

Introducing a new framework for climate action by Ministries of Finance

Ministries of Finance now need to strengthen their roles considerably to drive climate action at the pace and scale required. This will involve them mainstreaming climate action into key functional areas routinely carried out as part of their core responsibilities. These typically include economic strategy, fiscal policy and financial policy, with a broad range of important sub-functions such as investment planning and regulation and supervision of the financial system. These act as 'key entry points' for mainstreaming climate action within the core functions of Ministries of Finance, and are the starting point for the framework presented in Part B.

Ministries of Finance can mainstream climate into their **three typical core functions:**

1. **Economic strategy and vision:** using their responsibility for oversight or involvement in national development strategies, sector plans and capital investment planning to participate in the development of national climate strategies, greening national development and sector plans, shaping industrial and innovation strategies, and assessing investment needs for the transition—in partnership with relevant line ministries.
2. **Fiscal policies and budget management:** using their primary responsibility for fiscal policy, taxation and budget planning and execution to design carbon pricing and new forms of environmental taxation, reform fossil fuel subsidies, introduce new fiscal incentives for green sectors, reform multi-annual expenditure frameworks and annual budgets, and green public investment and procurement strategies. Introducing a zero-carbon tax system and managing contingent liabilities will be critical. The Ministry of Finance's central role in the budget formulation process is a particularly important entry point for driving climate action and investment.
3. **Financial policy and regulation and oversight of the financial system:** using their core responsibility for the regulation of state-owned banks, enterprises, sovereign wealth funds, financial institutions and debt markets, interfaces with central banks, and shareholdings and relationships with the international finance institutions (IFIs) and multilateral development banks (MDBs) to green the entire financial system and mobilize finance into sustainable investments. This can be achieved through frameworks for green bonds, catalyzing private capital, adaptation and disaster risk finance and insurance, and international climate finance—in partnership with central banks and the private sector.

Table A1 provides an overview of these key opportunities, which are then detailed further in Part B.

Table A1. Core Ministry of Finance functions and opportunities to mainstream climate action

Thematic area	Core Ministry of Finance functions	Opportunities for mainstreaming climate action
Economic strategy [Function 1]	• Oversight of national development and structural reform planning* • Oversight of sector plans* • Macro-fiscal forecasting* • Capital investment planning*	• Participating in the development of national climate strategies (Long-Term Strategies, Nationally Determined Contributions, National Adaptation Plans) • Greening national development and sector strategies • Shaping innovation and industrial strategies • Developing investment strategies for the net zero, climate-resilient transition, including through identifying and developing bankable projects and programs
Fiscal policy [Function 2] *Tax and debt management*	• Fiscal policy analysis, formulation and fiscal rules • Policy on taxation and other government revenues • Policy on sectoral fiscal incentives • Policy on management of fiscal risks, guarantees and contingent liabilities • Debt management strategy	• Carbon taxes and pricing, subsidy reform, other forms of environmental taxation • Fiscal incentives and regulations for catalyzing green sectors • Future proofing the public finances through tax reform to identify long-term alternative revenues to taxing fossil fuels, broadening the tax base and managing the fiscal risks of contingent liabilities
Budget management	• Formulation of multi-annual expenditure frameworks and annual budgets (including costings) • Public investment strategy and policies* • Policies on public procurement • Accounting policies and guidelines • Implementation of global standards for tracking revenues and expenditures	• Mainstreaming climate action within multi-annual expenditure frameworks and annual budgets (including green budget tagging and disaster risk assessments) • Greening public investment strategy • Greening public procurement • Reforming national accounting approaches
Financial policy and regulation and oversight of financial system [Function 3]	• Policies on inter-governmental fiscal relations and financial transfers • Regulation of debt markets • Policies on the management and regulation of state-owned banks, enterprises and sovereign wealth funds • Remit-setting for the central bank (where applicable)* • Regulation of financial institutions* • Management and regulation of other government assets and liabilities • Managing shareholdings and relationships with IFIs, MDBs, international organizations	• Domestic resource mobilization including frameworks for debt financing, sovereign green and other thematic bonds, and sub-national finance for climate action • Greening publicly backed financial institutions and central banks (including national development banks, sovereign wealth funds, and state-owned enterprises) • Catalyzing private capital through greening the financial system (including climate performance standards and disclosure requirements), innovations in financing models (including blended finance), and sustainable finance roadmaps • Disaster risk finance and insurance • Leveraging international climate finance (including by getting 'climate finance' ready, accessing international carbon markets, and country platforms) • International coordination on the global financial architecture

*Note and source: *Areas most often shared with independent agencies or other agencies, as per Allen et al. (2015, 2016). Adapted from Allen at al. (2015, 2016), which summarizes the core policy, regulation and transactional functional areas covered by most Ministries of Finance, updated here to identify key 'entry points' for mainstreaming climate action.*

Enhanced action by Ministries of Finance will require that they to work hand-in-hand with other line ministries and actors across these functional areas. It is especially important that they actively enable and support the leadership of line ministries and other actors through the power of the budget. They will also need to work in a co-leadership role in other areas, while taking a lead in the policy areas for which they are directly responsible (see Table A2).

Table A2. The role of Ministries of Finance in climate action across core functional areas in relation to other actors

Primary authority or influence of Ministries of Finance to accelerate action	Supporting actions by line ministries and other actors, including through the budget
• Mainstreaming climate action within multi-annual expenditure frameworks and annual budgets (incl. green budget tagging) • Greening public investment strategy • Greening public procurement • Carbon taxes and pricing, subsidy reform, and other forms of environmental taxation • Domestic resource mobilization and future proofing the public finances through tax reform to identify long-term alternative revenues to taxing fossil fuels, broadening the tax base and managing the fiscal risks of contingent liabilities • Disaster risk financing and insurance (incl. through establishing national disaster reconstruction and recovery funds)	• Sustainable and resilient infrastructure provision (energy, transportation, buildings, water, waste) • National electric charging infrastructure • Vehicle and fuel efficiency standards • National grid upgrades to integrate renewables • Building and utility performance standards • Retrofit and energy efficiency programs • Extension services for agriculture • National forest protection programs • R&D for innovation • Retraining, regeneration, social protection schemes • Disaster risk warning system
Co-leadership or shared responsibility with line ministries and other actors	
• Shaping national climate strategies (Long-Term Strategies, Nationally Determined Contributions, National Adaptation Plans) • Greening national development, sector strategies, and industrial/innovation strategies • Developing investment strategies incl. by assessing investment needs for the net zero, climate-resilient transition, e.g. through identifying and developing bankable projects and programs • Fiscal incentives and regulation for transforming key sectors such as energy, transportation, buildings, and forest protection • Reforms to regional and local fiscal powers to facilitate climate action and investment • Greening the financial sector (incl. developing climate performance standards and disclosure requirements) • Innovations in financing approaches (incl. blended finance) and sustainable finance roadmaps • Reforming remits and responsibilities of central banks, national development banks, sovereign wealth funds, and SOEs (where main shareholder) • Establishing frameworks for debt financing and green and other thematic sovereign bonds • Financial and insurance products for enhancing resilience • Leveraging international climate finance (incl. by getting 'climate finance ready', accessing voluntary carbon markets, and country platforms)	

Source: Authors

Delivering on this agenda will require Ministries of Finance to overcome the systemic barriers and institutional inertia that hamper their engagement on the climate. Rather than primarily technological or economic, the key barriers to a clean future are political, institutional and behavioral. It will be especially important for Ministries of Finance to shift how they view climate action: from a cost to a unique growth and investment opportunity. Ministries of Finance must also confront a natural but acute risk aversion to spending commitments in frontier policy areas, concerns about risks to the tax base from electrification and phasing out fossil fuels, aversion to use of green taxes, fiscal incentives, and earmarking carbon price revenue, and a conservative approach to the active use of fiscal policy and non-market mechanisms. And they must navigate actual or perceived trade-offs, including competing priorities at the macroeconomic and policy levels.

In many cases, Ministries of Finance will need to overcome acute gaps in their capabilities to act on climate. Interviews for this report demonstrate that Ministries of Finance often know 'what' strategies and policies are needed, but to act they require stronger leadership, mandates and institutional set-ups, better mechanisms for coordination within government and with external stakeholders, and better staffing and technical capabilities. Currently, there are gaps in these areas that significantly hamper the ability of Ministries of Finance to deliver on the core functions outlined above.

Three capabilities are of particular importance:

1. **Leadership capability:** strengthening the range of champions for climate action at the political and officials level, strengthening the Ministry's vision, mission and mandate to drive climate action, and creating clear responsibilities and organizational structures for climate leadership.
2. **Coordination capability:** driving effective collaboration across government and with the private sector, civil society **and international financial institutions, supported by effective strategies for consultation and communication.**
3. **Human and analytical capability:** ensuring dedicated staffing resources for climate action, upgrading expertise in climate policy, and revamping tools and analytical approaches for data collection and economic decision-making.

Table A3 provides an overview of these areas, which are detailed further in Part B.

Table A3. Core Ministry of Finance capabilities and opportunities to mainstream climate action

Thematic area	Core Ministry of Finance functions	Opportunities for mainstreaming climate action
Leadership [Capability 1]	Ministry mandate, strategy and senior leadership	• Strengthening champions at senior and official level to drive climate mainstreaming • Strengthening mandate reflecting Ministry of Finance role in driving climate action • Strategy, vision and mission incorporating climate action • Clear responsibilities and organizational structure for climate action, e.g. through climate unit
Coordination [Capability 2]	Processes for coordination and collaboration	• Processes for driving effective collaboration on climate action with other public agencies, private sector, civil society, MDBs, the global financial architecture, other actors • Effective communication strategies for consultation and communication around climate policies
Human and analytical [Capability 3]	Staffing structure and skills, and tools for economic decision-making	• Dedicated staffing resources responsible for mainstreaming climate • Generalist and specialist staff with relevant expertise and skills in climate action • Climate mainstreamed into tools and analytical approaches for data collection and economic decision-making • Alternative metrics of prosperity

Sources/notes: Various including World Bank (2013), which looked at internal capabilities of Central Finance Agencies (CFAs), and ODI (2016), which divides CFA capabilities into analytical, delivery, coordinative, and regulatory functions. The regulatory function is built into the core functions in this case. Leadership is not explicitly included in ODI (2016).

Part B of the full guide highlights the many examples of visionary leadership by both members and non-members of the Coalition across the core functions and capabilities. A snapshot of these is provided in Tables A4 and A5.

Table A4. Examples of good practice by Ministries of Finance (or national equivalents) in the core functions

Action area	Country examples
Function 1: Reforming economic strategy through shaping national plans and transition strategies (Helsinki Principles 1 and 6)	
Long-Term Strategies (LTSs)	• UK Treasury launched Net Zero Review • Burkina Faso Ministry of Finance (MoF) involved across all stages of LTS process • Fiji's Ministry of Finance, Strategic Planning, National Planning & Development (Ministry of Economy) leading LTS development • MoFs in Chile, Costa Rica and Ethiopia supporting LTS development • North Macedonia and Cambodia LTS assessing implications on domestic economy
Nationally Determined Contributions (NDCs)	• Rwanda Ministry of Finance and Economic Planning (MINECOFIN) leading on NDC revision • Sudan Ministry of Finance and Economic Planning (MOFEP) a focal point in NDC implementation • Norway MoF responsible for NDC economic measures • MoFs in Chile, Norway and Uruguay supporting NDC development
National Adaptation Plans (NAPs)	• Fiji Ministry of Economy costing the NAP • Togo Ministry of Economy, Finance and Development Planning (MOEFDP) aligning the NAP process with national budget planning
National development strategies	• Uganda Ministry of Finance, Planning and Economic Development (MOFPED)'s National Development Plan and Green Growth Strategy • Nigeria MoF leading the National Development Plan • Ireland revising its National Development Plan • Mexico MoF aligning national planning with 2030 Agenda and Sustainable Development Goals (SDGs) • France MoF coordinating sectoral decarbonization strategies • Bangladesh and Morocco developing plans for sector decarbonization
Industrial and innovation strategies	• Morocco's green industrialization strategy • India launching photovoltaics program • US Inflation Reduction Act • Japan and Ethiopia launching Green Growth Strategies with industrial policy elements
Investment strategies and needs assessment	• **Rwanda MINECOFIN driving climate action and investment** • Saint Kitts and Nevis assessing investment barriers as part of NDC • Spain's National Energy and Climate Plan, co-developed by the Ministry of Finance • Cambodia and Costa Rica assessing long-term investment needs • Finland MoF part of cross-ministerial green transition finance working group
Project pipelines and prioritization	• Kiribati's NDC Investment Plan including a project pipeline • São Tomé and Príncipe developing a project roadmap • Indonesia, Colombia, UK and Mexico establishing entities to speed up investment
Function 2: Reforming fiscal policies (Helsinki Principles 3 and 4)	
Economic incentives and fiscal policy	• MoFs in Canada, EU, Chile, Ireland and Denmark introducing carbon pricing • MoFs in Indonesia and India reforming fossil fuel subsidies • Sweden MoF introducing revenue-generating policy instruments • **Uruguay MoF role in driving energy sector transformation in Uruguay** • Germany, Ethiopia, Iceland and Belgium MoFs introducing tax incentives for EVs and retrofitting
Smart policy packages	• Chile MoF introducing an integrated Green Finance Strategy • Costa Rica linking different environmental taxes • EU's Fit for 55 Package • Germany, India and UK using smart policy packages
Future-proofing public finances	• Costa Rica MoF leading introduction of green tax reform • Switzerland introduction of road user charging • US states and cities piloting road use charges as substitutes for fuel tax

Action area	Country examples
Managing fiscal risks	• Bahamas MoF identifying climate infrastructure investment opportunities • Barbados introducing a disaster risk clause into loan agreements
Expenditure and budget frameworks	• France MoF preparing a Green Budget • Nepal MoF including a Climate Budget • Canada's Strategic Environment Assessment for policy and program proposals
Greening public investment management	• Mexico MoF developing sustainability indicators for public investments • Ethiopia's public investment management guidelines, co-developed by the MoF • Chile's methodology for assessing disaster risk in public infrastructure projects • Costa Rica's disaster risk analysis in National Public Investment System
Green procurement	• Costa Rica introducing green public procurement law
Function 3: Reforming financial policy and the financial system to raise, steer and blend finance (Helsinki Principle 5)	
Broadening the tax base	• Rwanda Revenue Authority under MoF implementing reforms to tax collection
Debt financing, including through green and other thematic bonds	• MoFs in Poland, Fiji, Italy, France and Singapore issuing green bonds • Chile and Uruguay MoFs issuing a sovereign sustainability-linked bond • Mexico MoF issuing SDG-linked bonds, Seychelles launching a blue bond and Indonesia issuing a 'green sukuk' • European Bank for Reconstruction and Development launching a climate resilience bond • EU suspending fiscal rules to provide a fiscal response to COVID-19 • Belize signing a debt-for-climate swap
Sub-sovereign finance	• UK Treasury and City of London's use of land-based financing • Uganda MOFPED improving tax administration and collection • Johannesburg and Mexico City issuing green bonds
Greening national development banks (NDBs) and green investment banks (GIBs)	• Germany's KfW, France's AFD and Colombia's Bancoldex providing financing for low-carbon, climate-resilient projects • European Investment Bank publishing a Climate Roadmap • Netherlands MoF greening export credit insurances
Leveraging sovereign wealth funds and state-owned enterprises	• Norway greening the Government Pension Fund Global with support of MoF • Italy MoF mandating CDP Green, Social and Sustainability Bond Framework • New Zealand MoF issuing investment framework for Superannuation Fund
Reforming central bank activities	• UK Treasury changing the remit of Bank of England's Monetary and Financial Policy Committees • EU debating the European Central Bank mandate
Greening the financial sector	• Netherlands national climate and energy plan (NCEP) financial sector commitments • French financial institutions committing to coal exit strategies to Minister of the Economy and Finance • Indonesia launching a green taxonomy • Luxembourg launching Sustainable Finance Initiative • MoF Mexico launching Sustainable Taxonomy • Poland combining capital market development with sustainable finance
Innovations in financial models	• MoF Indonesia embracing blended finance • EU launching External Investment Plan • Finland launching Blended Finance for Climate Program • Germany and Luxembourg launching initiatives to raise climate finance
Green finance roadmaps	• MoF Germany co-developing a sustainable finance roadmap
Disaster risk finance and insurance for all	• **Jamaican MoF participating in developing a disaster risk financing strategy** • Four Pacific Alliance countries launching a catastrophe bond • Caribbean Catastrophe Risk Insurance Facility • Mexico MoF disaster risk management processes
Leveraging multilateral development bank (MDB) and development finance institution (DFI) capital	• Brazilian Development Bank (BNDES) financing green development projects • Mexico's Nacional Financiera (NAFIN) supporting international climate finance projects • Rwanda Green Fund (FONERWA) as a vehicle for climate finance

Action area	Country examples
Accessing international capital markets	• African Carbon Markets Initiative launched at COP27 • Guyana, Peru, Nepal and Cambodia issuing, or preparing to issue, carbon credits
Country platforms	• South Africa launching International Just Energy Transition Partnership
Cross-cutting: Just transition	
Ensuring a just transition	• **Ireland MoF using carbon taxation revenues to support a just transition** • Canada's Just Transition Task Force mitigating social impacts of transition • Spain's just transition agreements for climate-affected regions • EU launching a just transition mechanism

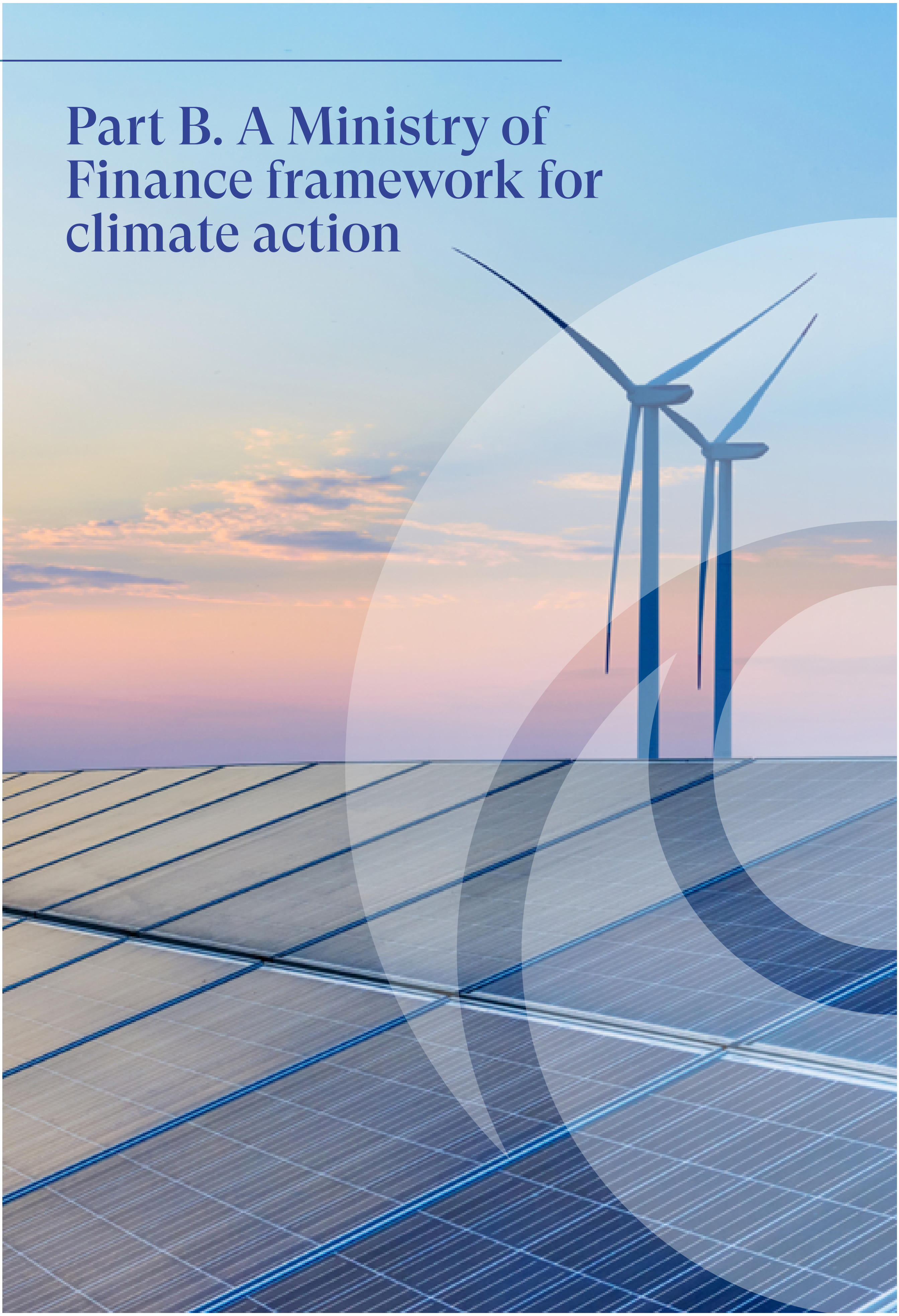
Note: Not all the initiatives named necessarily have MoF involvement but they can serve as examples for MoFs for types of strategies they can develop or support. Bold indicates a detailed case study in the full guide.

Table A5. Examples of good practice by Ministries of Finance (or national equivalents) in the core functions

Action area	Country examples
Capability 1: Leadership and governance (Helsinki Principle 2)	
Revamping MoF mandate on climate change	• **Denmark MoF's update of its mission statement** • Ireland, Bahamas, Malaysia, Peru and Uruguay clarifying their MoFs' mandates
Developing internal MoF strategies on climate change	• US Treasury Strategic Plan includes 'Sustainable Treasury Operations' • Ireland, New Zealand and Finland MoFs integrating climate into their ministerial strategy • Chile and the US Treasury publishing climate strategies • Finland MoF's new climate and nature strategy
Enhancing governance and organizational set-up	• **Denmark's MoF setting up a Centre for Climate, Green Economy and the EU** • **Fiji Ministry of Economy setting up a Climate Change and International Cooperation Division** • Ireland, India, Chile Uganda, Peru and UK MoFs setting up dedicated units • **US Treasury creating a Climate Hub**
Capability 2: Coordination and collaboration (Helsinki Principles 2 and 4)	
Improving collaboration and coordination	• US, Uganda, Uruguay and Singapore MoFs involved in inter-agency coordination mechanisms • **Uganda MoF's role in coordination of climate response** • France creating the General Secretariat for Ecological Planning • Greece, Uruguay and Egypt MoFs collaborating on strategic initiatives • **Denmark MoF's role in coordinating climate policy** • Ireland, France and Uruguay MoFs coordinating with external stakeholders • **Chile MoF creating the public–private green finance roundtable**
Capability 3: Human capacity, expertise and economic decision-making (Helsinki Principles 2 and 4)	
Upgrading skills and expertise	• **European Commission supporting implementation of green budgeting among EU members** • **Inter-American Development Bank providing support on green fiscal policies** • Denmark MoF and US Treasury providing training on climate • Nordic Council of Ministers develop and research modeling • Ireland, Korea and UK MoFs collaborating with external experts
Enhancing analytical capability	• MoFs in Chile, UK and Finland assessing climate impacts • Denmark's GreenREFORM Model developed with MoF support

Note: Bold indicates a detailed case study in the full guide.

Part B. A Ministry of Finance framework for climate action



This part of the report presents a practical framework that Ministries of Finance can follow to mainstream climate action into their operations and drive the shift toward a zero carbon, climate-resilient future.

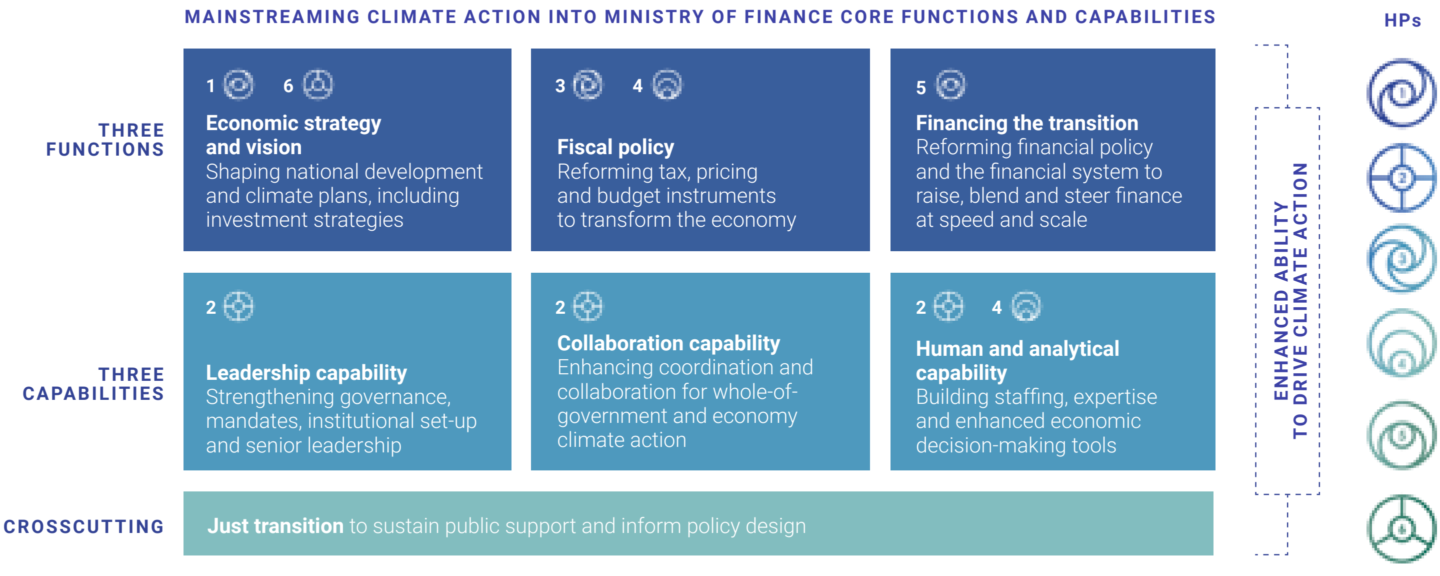
Read this to:

- Explore how to build core functions and capabilities to act on climate
- Understand how to take action and overcome barriers across a series of action areas
- Find out more about the steps Ministries of Finance are already taking around the world

Introduction

The following framework for mainstreaming climate action, summarized in Figure B1, is organized around the three 'core functions' and three 'core capabilities' of Ministries of Finance outlined in Part A above. Each of the functions and capabilities is broken down into further detailed action areas, as summarized beneath the figure.

Figure B1. A Ministry of Finance framework for climate action



Source: Authors

The Helsinki Principles (HPs) are outlined on p.7 above

The three functions that can be enhanced for Ministries of Finance to mainstream climate, and the Helsinki Principles (HPs) they align with, are:

Function 1: Economic strategy and vision (HPs 1 and 6)
Reforming economic strategy through shaping national development and climate plans, including investment strategies for sustainable, inclusive and resilient growth, in partnership with others:

- **Shaping national climate and development strategies**
  - 1a: Participating in the development and implementation of climate strategies, including Long-Term Strategies, Nationally Determined Contributions and National Adaptation Plans
  - 1b: Greening national development and sector strategies
  - 1c: Shaping 21st century industrial and innovation strategies
- **Shaping investment strategies**
  - 1d: Developing investment strategies including by assessing investment needs
  - 1e: Identifying and developing bankable projects and programs

Function 2: Fiscal policy (HPs 3 and 4)
Reforming fiscal policies through reforming tax systems, macroeconomic incentives and mainstreaming climate in the budget:

- **Reforming tax systems and macroeconomic incentives**
  - 2a: Transforming macroeconomic incentives through carbon pricing, subsidy reform and other fiscal policy measures and combining instruments into smart policy packages
  - 2b: Future-proofing public finances by redesigning the tax system for net zero and climate resilience, including by identifying alternative revenue streams and managing fiscal risks of cascading contingent liabilities
- **Mainstreaming climate in the budget**
  - 2c: Using the budget to drive transformation in all sectors of the economy, including through annual budgets and medium-term expenditure frameworks
  - 2d: Greening public investment management
  - 2e: Greening public procurement

Function 3: Financing the transition (HP 5)
Financing the transition through reforming the financial system and instruments to raise, steer and blend finance at speed and scale from a wide range of public and private, domestic and international sources:

- 3a: Mobilizing domestic revenue to finance investment, including through debt financing, sovereign green and other thematic bonds, and enhancing sub-sovereign finance
- 3b: Greening publicly backed financial institutions, including sovereign wealth funds, state-owned enterprises and central banks
- 3c: Accessing deep pockets of private capital to finance the transition, including by greening the financial sector, driving innovation in financing models and developing sustainable finance roadmaps
- 3d: Providing disaster risk financing and insurance for all
- 3e: Leveraging international climate finance and the global financial architecture, including by leveraging MDB and DFI capital, accessing international carbon markets and setting up country platforms

The three capabilities Ministries of Finance can develop to play a more active role in climate action, and the Helsinki Principles they align with, are:

Capability 1: Leadership capability (HP2)
Strengthening leadership for climate action through a revamped vision, mission, mandate and institutional set-up for climate action to provide strategic clarity on the direction of travel:

- 1a: Strengthening the mandate of Ministries of Finance
- 1b: Developing organizational climate strategies
- 1c: Formalizing governance structures and organizational set-up

Capability 2: Collaboration capability (HP2)
Enhancing collaboration and coordination within and outside government for a whole-of-economy approach to climate action.

Capability 3: Human and analytical capacity (HPs 2 and 4)
Building human capacity, expertise and economic decision-making tools for climate action:

- 3a: Enhancing skills and expertise of ministerial staff
- 3b: Enhancing economic decision-making tools and data-driven analysis to inform decision-making

Crosscutting issue
The critical need for Ministries of Finance to drive forward a just transition to sustain public support and inform effective policy design is a particularly important crosscutting issue.

Navigating and using the framework

The remainder of Part B outlines a wide range of opportunities for action that can be considered by Ministries of Finance, within the structure of the framework.

Each action area covers four themes:

- The critical role of the Ministry of Finance in the area at hand
- Typical barriers to action and strategies to overcome them
- Real world examples and case studies from Coalition members and other countries
- Opportunities for action and ways forward for Ministries of Finance

It is important for readers to keep in mind three key issues when navigating the framework:

1. **The need to collaborate and enable the leadership of other line ministries.** Ministries of Finance do not typically lead on the development of national climate strategies or investment strategies (Function 1); they develop these in partnership with other line ministries and support them in their implementation. This contrasts with the primary responsibility they typically have for the budget, fiscal and financing policy (Functions 2 and 3).

2. **The need to consider the inextricable links between all the functions and capabilities.** Strengthening one but not another risks not generating discernible or enduring benefits. This underscores the need to consider comprehensive reviews of their core functions and capabilities while being mindful of the need to focus resources in the areas likely to yield the most significant impacts (see Part C).

3. **The need for each Ministry of Finance to prioritize and sequence the steps it takes and consider its own unique operational context.** Important differences exist across countries in the mandates, structures, capacity, cultures and enabling environment, so a 'one size fits all' approach to climate policy and organizational reform will not work. Ministries of Finance will need to use this framework to identify the most relevant opportunities for action (see Part C).

The expected outcome from applying this framework will be an enhanced ability to drive climate action and investment through mainstreaming climate policy within Ministry core functions and capabilities.

The impact will be accelerated climate action and investment at scale nationwide which will deliver a wide range of domestic and global economic, social and environmental outcomes.

A key objective is to encourage Ministries of Finance to develop smart packages of mutually reinforcing strategies, investment plans, policies and financing measures, to take advantage of the interactions between measures.

Function 1. Reforming economic strategy through shaping national development and climate plans

Helsinki Principles 1 and 6

Function 1 focuses on how Ministries of Finance can contribute to ambitious national climate strategies and then embed these at the heart of national development plans and investment strategies to drive the transition to net zero, resilient economies, working closely with Ministries of Environment, Planning, and other relevant line ministries.

It contains five action areas divided across 1) shaping national climate and development strategies (Functions 1a–c), and 2) shaping investment strategies (Functions 1d and e).

1) Shaping national climate and development strategies

Function 1a. Participating in the development and implementation of climate strategies

Critical role of Ministries of Finance

LTS = Long-Term Strategy
NDC = Nationally Determined Contribution
NAP = National Adaptation Plan

The zero-carbon, climate-resilient transition will demand that Ministries of Finance place climate action at the heart of supporting national development: this will require active participation in national climate plans but also integrating them into national development plans (see Function 1b). Long-Term Strategies (LTSs), Nationally Determined Contributions (NDCs) and National Adaptation Plans (NAPs) are key national climate planning instruments. With Ministry of Finance involvement, they can also be excellent tools to help them identify investment priorities, budget risks and opportunities, and other ways to integrate climate action into their day-to-day activities.

Ministries of Finance need to systematically engage more with these processes. When surveyed in 2021, less than half of the Coalition members had completed a cost assessment of measures in their LTS or conducted cost–benefit analyses. And while 12% of Coalition members stated they oversee the LTS process (often in collaboration with other ministries), 15% said they are not involved at all (Coalition of Finance Ministers for Climate Action, 2020a). Similarly, while only 11% of members have no engagement in NDC formulation, validation or implementation processes, only around a quarter (28%) are actively involved in all three stages (ibid., 2020b). With proper engagement, Ministries of Finance can ensure that plans address macroeconomics and finance-related issues, adequately assess costs, and consider wider financial implications and resourcing, including through their integration into planning and budget management processes. They will also improve their understanding of the risks and opportunities of climate action and how these relate to Ministry of Finance core objectives.

Leadership and engagement from the Ministries of Finance in the LTS formulation process, in support of the lead agency, are essential. Ministries can find value in using the LTS process as a planning tool to offer a long-term perspective on the policies and investments needed for decarbonization and enhancing resilience. Their involvement can ensure that the full economic benefits of decarbonization are realized, that decarbonization acts as an accelerator of development, and that economic trade-offs can be identified and anticipated (ibid., 2020a). They can ensure that these strategies provide certainty for investors and companies, increasing their confidence to allocate capital toward the transition and implement their own net zero strategies.

Many Ministries of Finance are already demonstrating what successful engagement looks like at different stages of the LTS process. For example, the development of the **UK's** net zero strategy was supported by the Treasury, while in **Fiji**, the Ministry of Economy's Climate Change and International Cooperation Division developed the LTS and coordinates its implementation.

LTSs are complemented by NDCs, which lay out five- to 10-year commitments to reducing emissions. Successful NDC implementation and continuous enhancement will be critical to avoid dangerous climate change while creating the strong policy signals required to accelerate the transition to a low-carbon economy. Ministry of Finance involvement is needed to ensure NDCs are costed and financeable, and this is also an opportunity for Ministries to support opportunities for growth and development (Coalition of Finance Ministers for Climate Action, 2020b, 2020a).

The involvement by Ministries of Finance in NDCs can take different forms. For instance, in **Rwanda** the Ministry of Economy and Finance coordinated the NDC revision and participated in every stage of its updating and identified NDC-related investment needs. In **Chile** the Ministry of Finance is part of a multi-agency group that contributes to the NDC process, e.g. providing GDP forecasts for modeling different scenarios and their impact on the economy. In **Norway** the Ministry of Finance implements the NDC's economic measures, including carbon pricing.

NAPs can enable countries, particularly developing countries, to identify and address their medium- and long-term priorities for adapting to climate change, providing more detail than LTSs and NDCs. NAPs can help Ministries of Finance set up the systems to integrate adaptation into national planning, decision-making and budgeting processes, increasing the resilience of the public finances (IISD, 2022). In **Togo**, the Ministry of Economy, Finance and Development Planning is part of an Inter-Ministerial National Adaptation Plan Committee and is taking steps to align its NAP process with its national development and budget planning cycle, identifying key entry points for integrating adaptation into the budget process. In **Fiji** the Ministry of Economy has developed a methodology to provide rapid and comparable cost estimates for the prioritized actions in the country's NAP.

Despite their different timeframes and purposes, LTSs, NDCs and NAPs are deeply interconnected, though in practice they are not always aligned. Without a strong nearer-term commitment to reducing emissions, increasing adaptive capacity and building resilience, it is less likely a longer-term pathway will be deliverable, due to the lock-in impacts of long-lived infrastructure. Equally, without a long-term signal and certainty around the direction of travel it will be far more challenging to galvanize near-term action at the pace required and leverage investment for the transformation.

Ministries of Finance can play a range of similar roles across LTSs, NDCs and NAPs, cutting across three key stages that should feature in the development of these instruments (see Figure B2).

Figure B2. Role of Ministries of Finance in three key stages of LTSs, NDCs and NAPs

Formulation

(i) Ensuring robust evaluation of policies, measures and scenarios from economic and fiscal perspectives, including that the measures pronosed consider socio-economic costs and benefits. and are reliably costed.
(ii) Ensuring robust governance processes and making use of their convening power to support and coordinate the ministries responsible for formulation and implementation, and the involvement of the private and third sectors.
(iii) Identifying relevant fiscal and public policy levers for building an enabling environment for implementation

Implementation

(i) Mainstreaming measures and policies outlined in climate plans into policy debates and national planning, decision-making and budgeting processes under the purview of the Ministries of Finance and work with line ministries to integrate plans into sectoral budgets (as discussed in under Functions 2 and 3).
(ii) Ensuring adequate resourcing for implementation, including by developing dedicated implementation/financing plans and accessing international climate finance.

Monitoring and revision

(i) Developing systems to monitor, track and report implementation and climate finance flows, and evaluate allocation and quality of spending.
(ii) Feeding lessons into the plan's next iteration

Source: Authors

Barriers to action and ways to overcome them

Major barriers that prevent most Ministries of Finance from contributing to strong climate strategy plans include a lack of coordination between Ministries of Finance and Environment (or the respective lead agency) and a lack of capacity in terms of personnel or specialized knowledge (Coalition of Finance Ministers for Climate Action, 2022c). Those engaged in the process face additional challenges around data and tools, including for modeling and assessing the costs, benefits and impacts of policies and investments, and monitoring, reporting and verification. In particular, there is a lack of granular information on long-term transition pathways and technology options for net zero and for adaptation (ibid., 2022a), and challenges in identifying sources of international climate finance.

To overcome these barriers, Ministries of Finance should consider engagement in climate plans as a core part of their responsibilities. They should take care to participate in, create or strengthen governance structures that enable successful collaboration and that articulate their involvement in all key stages of the process. Investing in staff capacity and skills, tools and knowledge will be essential (see Capability 3). Developing dedicated finance strategies and/or investment plans can help identify financing splits and harness international finance (see Function 3). For those just starting to engage in climate planning processes, several entry points exist for engagement and a phased approach can be taken to suit the context. Initiatives such as the NDC Partnership and the UNDP Climate Promise provide expertise, technical assistance and funding.

Opportunities for action

Ministries of Finance should consider supporting lead agencies to develop national climate strategies—including LTSs, NDCs and NAPs. They should ensure they contain strong macroeconomic considerations and cost assessments to inform the role of fiscal policy, budgets and financial instruments, by investing resources to engage in all phases of the process—planning, implementation, monitoring and revision—and integrating them into core government processes to ensure implementation.

Ministries of Finance should work with other involved agencies to agree clear roles and responsibilities or consider taking overall responsibility for climate plan development to drive action and investment across government. They can also encourage alignment across LTSs, NDCs and NAPs and streamlining of the three processes.

Function 1b. Greening national development and sector strategies

Critical role of Ministries of Finance

Government strategies are a critical entry point for laying out national plans and strategies for a low-carbon and climate-resilient future. Climate plans will be difficult to implement if they are not integrated into national planning processes including National Development Plans (NDPs), sectoral strategies and similar documents that ensure policy coherence across sectors and levels of government. They also need to orient both public and private sectors toward a common goal, and provide key inputs into the medium-term and annual budget processes (see Function 2).

Ministries of Finance can be key drivers of integration between climate and other government strategies and plans, and can ensure that investments for development and climate change mitigation, adaptation and resilience are mutually supportive. Where climate strategies and development strategies lack explicit alignment—which is often the case (Okereke, 2021)—climate targets are not adequately fed into national planning and budgetary processes, resulting in less effective NDCs and LTSs, and NDPs that are ill-equipped to tackle the climate crisis. This represents a missed opportunity to simultaneously reduce emissions, build resilience and achieve socioeconomic objectives. Inter-agency coordination mechanisms are crucial for ensuring alignment. In **Uganda**, for instance, a tripartite arrangement between the Ministries of Finance, Planning and Economic Development, the Ministry of Water and Environment and the National Planning Authority is improving collaboration and alignment of climate policies with national priorities and has resulted in an NDP that includes climate, along with a green and climate-resilient growth strategy that sets an agenda for the green transition of key economic sectors in support of the NDP.

Ministries of Finance that are actively shaping climate strategies will be better placed to ensure their alignment with NDPs. They can support the development of strong NDCs, NAPs and LTSs with realistic measures and targets, prepared within the context of the country's broader development challenges that can form the basis for successful integration of climate into development planning. They can thus ensure the measures outlined in NDCs, NAPs and LTSs feed into the work program of the NDP, and subsequent budget and planning processes (Bird et al., 2017).

Greening sectoral strategies and plans, or sectoral decarbonization roadmaps, can be as important as greening NDPs. While the design process of sectoral strategies is usually led by the relevant line ministry, Ministry of Finance involvement is crucial: (i) to ensure alignment with overall climate and decarbonization strategies; (ii) to facilitate cross-sectoral coordination; and (iii) to put in place the relevant sector-specific regulations and fiscal incentives. Ministries of Finance also have a role to play in aggregating individual sectoral strategies to provide an overview of the country's progress on transition planning, and transparently reporting on it.

In **France**, the Ministry of Finance coordinates the development of sectoral decarbonization roadmaps in key sectors. Sectoral plans can also form part of broader decarbonization strategies. **Bangladesh** and **Morocco** have national development strategies with sectoral decarbonization plans, supported by cross-sectoral advisory bodies.

Barriers to action and ways to overcome them

Failure to integrate climate plans into national planning documents can be caused by a range of factors. A lack of engagement by Ministries of Finance in climate strategies can lead to a hands-off approach to climate action and a perception of there being strong trade-offs between climate action and development. If climate strategies lack detail and sector-specific measures and targets, they fail to provide useful inputs into other strategies. Lack of cross-ministerial coordination mechanisms that could enable Ministries of Finance to take an active role in coordinating economy-wide transition planning, and misalignment of timelines often further hamper integration.

These barriers can usually be overcome if Ministries of Finance can strongly involve themselves in national climate plans, which will increase their awareness of the consequences of inaction on climate for development, and the many economic and societal co-benefits action can bring. The Ministry can also ensure that climate strategies contain the necessary features needed for successful integration into NDP or sectoral strategies.

Opportunities for action

Ministries of Finance should play a key role in integrating climate into national development strategies to drive economic transformation across the economy: by actively shaping climate-related plans, to ensure they are realistic and financeable, and providing the necessary detail to guide NDPs and sectoral strategies; and possibly by aligning planning timeframes and setting up cross-ministerial governance structures to ensure successful collaboration. They can also take an active role in coordinating economy-wide transition planning, including by aggregating individual sectoral strategies.

Function 1c. Shaping 21st century industrial and innovation strategies

Critical role of Ministries of Finance

An increasing number of countries are developing industrial and/or innovation policies to help the growth of new low-carbon, climate-resilient sectors and the transition away from old ones (Altenburg and Assmann, 2017). Such policies can form part of National Development Strategies and be closely linked to climate plans. Ministries of Finance can contribute by financing innovation or providing credit to new growth industries facing market and non-market barriers to expansion, complemented by measures to support the transition of high-carbon industries.

Chile, for example supports first movers through a grant that finances up to 50% of the cost of research and pre-investment in non-conventional renewable energy projects. To diversify the energy mix and reduce the share of imported fossil fuels in energy supply, **Morocco** has developed a comprehensive strategy aimed at industrialization based on low-carbon, resource-efficient technologies. The **US** Inflation Reduction act directs $370 billion of funding for renewable energy and climate action over the next decade, delivered through a mix of tax incentives, grants and loan guarantees.

The active use of fiscal policy to accelerate green industrial transformation is justified by at least three arguments (Hausmann and Rodrik, 2003; Rosenbloom et al., 2020). First, dynamic cost curves and information failures mean that pioneers experience a 'first-mover disadvantage', where they have to cover the upfront cost of innovation but share its benefits with imitators, creating disincentives to innovate. It is therefore argued that public investment is crucial for transformative innovation given its long-term and risky nature (Mazzucato, 2021). Second, new low-emission technologies suffer from externalities that make the net benefits initially hard to capture by private investors. To make the establishment of new industries for frontier renewable energy technologies attractive, it can be necessary to subsidize the cost of capital to unlock sufficient private investment. Third, institutional and coordination failures might require Ministries of Finance to actively coordinate across sectors.

Supporting the development of industrial and innovation policy can take many forms. While Ministries of Finance are rarely at the helm of industrial and innovation policy, they should encourage the development of such policies, including by setting strategic objectives for multi-year policy orientation, using fiscal policy to encourage sunrise industries, ensuring financial transparency and accountability, and coordination with the private sector to identify bottlenecks and regularly assess policy results. They can also ensure that innovation and industrial strategies are climate-resilient.

Some Ministries of Finance may also have direct or indirect responsibility for competition policy, state-aid rules and trade policy, all of which can support green industrial and innovation policy. They therefore have an important role to play in convening a strategic whole-of-government response on how climate policy shapes competition and trade policy.

Barriers to action and ways to overcome them

Ministries of Finance committed to supporting green industrial and innovation policy typically face three types of barriers: concerns over limited fiscal space, over the sustainability of fiscal support, and over the ability to drive a coherent industrial and innovation policy across government. Functions 2 and 3 provide valuable lessons in how to design time-bound fiscal incentive schemes and create the fiscal space for investment.

Opportunities for action

All Ministries of Finance should consider the greater use of 21st century industry and innovation strategies. They should look to build a national innovation ecosystem working with other agencies, using fiscal policy and other measures to encourage green innovation and new industries.

2) Shaping investment strategies

Delivering on the objectives of national climate and development strategies will require Ministries of Finance to support a major investment push in all forms of capital. While some of this investment will need to come from the private sector (up to 70% in certain sectors [Vivid Economics, 2021]), governments play a key role in financing critical investments, and ensuring the right enabling environment and regulatory frameworks (see Part A).

Realizing the necessary investments to implement climate strategies will require active engagement from Ministries of Finance in long-term investment planning as part of and/or linked to national strategy and budget processes, in cooperation with other key ministries and the private sector. They will need to play a major role in supporting the identification of investment needs based on NDCs, LTSs, NAPs and NDPs, using this to develop investment strategies and plans, and in project preparation and identifying tangible project pipelines. Unlocking this investment downstream will then involve feeding investment plans into the budget process and public investment management, along with identifying relevant policies and financial instruments capable of providing the investment at the speed and scale required (covered under Functions 2 and 3).

Function 1d. Developing investment strategies including by assessing investment needs

Context and role of Ministries of Finance

To realize the investments needed to accelerate the transition toward net zero economies, long-term investment strategies and plans are required.[21] Investment decisions taken today have a direct impact on the ability of countries to meet their climate targets, not least due to the lock-in effects of long-lived infrastructure. Yet currently, alignment between investment and decarbonization goals is low. For instance, globally, investment in fossil fuel production is projected to increase by an average of 2% per year, which by 2030 would more than double the production capacity compatible with the 1.5-degree target of the Paris Agreement (SEI et al., 2021).

Ministries of Finance, working with sectoral ministries, the private sector and civil society, have a role to play in translating climate and development plans into investment strategies and plans. These should outline the government's priorities, possible financing splits and technological preferences, serve as powerful guides and signal the priority of the transition to all levels of government, investors and the public alike, thereby accelerating the implementation of LTSs, NDCs and NAPs (NDC Partnership, 2022a, 2022b). Some countries are developing dedicated investment plans for NDC implementation: e.g. **Rwanda**, in a process led by the Ministry of Finance and Economic Planning, has identified NDC investment needs as part of its NDC Implementation Framework.

Developing investment plans will require Ministries of Finance to identify overall investment needs for net zero and climate resilience across different types of capital, sectors and technologies, based on the ambitions set out in climate and development plans. And it will require ensuring that all investment is future-proofed. **Finland** set up a cross-ministerial working group between Ministries of Finance, Environment and Economy and Employment to jointly assess the country's green transition and financing needs plus barriers to investment. Over the coming years, the World Bank's Country Climate and Development Reports (CCDRs) will also help to provide data on investment needs (World Bank, 2022a).

Ministries of Finance should give consideration to the operation and maintenance (O&M) costs of infrastructure alongside capital expenditure. Not only can O&M be a significant cost factor, maintenance can also generate substantial savings. Analysis of OECD countries suggests each additional $1 spent on road maintenance saves $1.5 in new investments (Kornejew et al., 2019). Ministries can also use the opportunity to consider and actively manage the socioeconomic consequences of the proposed investments, ensuring a just transition.

Exploring financing splits (even if indicative) as part of investment planning is particularly important to ensure that the public purse is not unduly burdened and that the private sector can take on investment wherever possible. Strategic public investment is key to riskier investments eventually becoming bankable for the private sector. Other investments will need to include project support or subsidies to be viable, or be fully financed by public sources (World Bank, 2023).

Barriers to action and ways to overcome them

Barriers to investment at scale include fiscal, technological, implementation, policy and regulatory barriers (NDC Partnership, 2022a). The planning process itself can be complicated by a lack of clear climate plans with targets on which to base assessment needs, the uncertainties associated with climate change, and the lack of data on climate impacts and risk.

Steps Ministries of Finance can take to tackle barriers to investment planning include proactively mapping potential barriers and designing mitigation strategies, strong involvement in national climate strategies to ensure they can serve as solid bases for investment planning, and considering needs assessment and investment planning as iterative processes to take into account changing circumstances. **St Kitts and Nevis** systematically identified sector-specific barriers to investment as part of its NDC implementation plan and scoped out potential solutions, including the type of technical assistance and financial instruments needed to target the barriers.

Opportunities for action

Ministries of Finance should be engaged in the development of plans for sustainable and resilient investment as part of or connected to climate strategies. They should build the necessary expertise for investment needs assessments and making informed investment decisions, working closely with other stakeholders, including sector ministries and the private sector.

Function 1e. Identifying and developing bankable projects and programs

Critical role of Ministries of Finance

Developing sustainable, resilient and inclusive investment plans is only the first step in mobilizing investment. One reason that investments currently fall short of what is needed is a lack of identifiable, investment-ready and bankable projects (OECD, 2018). It is therefore important to ensure that investment planning decisions are translated into concrete project programs and pipelines.

Project pipelines can help to (i) promote investment in priority sectors; (ii) accommodate the requirements of investors; and (iii) allocate project preparation support to projects that are not yet bankable. Pipelines are an important tool for prioritizing strategic projects—i.e. the most impactful investments to achieve climate targets in key sectors (OECD, 2810). Ministries of Finance can champion the development of project pipelines, in a leadership or supportive role, by ensuring cross-agency collaboration, bringing in cross-sectorial insights, and engaging with the financial sector. **Kiribati's** NDC Investment Plan contains a project pipeline consisting of 15 'primary mitigation opportunities', projects worth an estimated $210m, in two priority sectors, transportation and energy.

Stable institutions and a supportive regulatory environment will be equally crucial to implementing investment strategies successfully. Ministries of Finance can help ensure a clear, predictable and stable legal and regulatory environment across all sectors and all levels of government (e.g. procedures for contract enforcement). The IMF's Public Investment Management Assessment (PIMA) framework can help countries assess their investment climate and design tailored action plans.

Barriers to action and ways to overcome them

Barriers that prevent Ministries from developing or supporting robust pipelines of bankable projects include a lack of tools with which to prioritize climate projects, existing project pipelines that do not align with climate plans, and the high costs of project preparation. Some countries, MDBs, and development partners have set up project preparation facilities that help projects get investment-ready and support pipeline development more broadly. In some cases, new cross-agency entities have been built to coordinate and speed up investments. For example, **Indonesia** established the Committee for Acceleration of Priority Infrastructure Delivery (KPPIP) in 2014, an inter-ministerial body that includes the Ministry of Finance, to coordinate infrastructure planning by identifying and prioritizing the most beneficial projects.

Opportunities for action

In collaboration with other ministries, Ministries of Finance should build mechanisms for translating investment planning decisions into concrete programs and pipelines that prioritize strategic projects. This might include in-house project support facilities or integrating climate investments into existing ones. They should also look for ways to strengthen the overall investment climate.

Function 2. Reforming fiscal policies

Helsinki Principles 3 and 4

Function 2 explains how Ministries of Finance can use fiscal policy levers and the budget process to drive climate action across a wide range of policy areas.

It covers 1) reforming tax systems and macroeconomic incentives through carbon pricing, subsidy reform and other fiscal policy measures (Functions 2a and 2b), and 2) mainstreaming climate in the budget, including through greening public investment management and using public procurement (Functions 2c–2e).

Design and implementation of national climate strategies and investment plans will require Ministries of Finance to utilize a wide range of macro and fiscal policy measures across tax, debt and budget management to shape economy-wide and sector-specific incentives and to provide sufficient resources for climate action and investment.

Priority measures that should be considered include carbon pricing schemes and subsidy reforms supplemented by other fiscal incentives and regulatory reforms to transform key economic systems; future-proofing the public finances through redesigning the overall tax system for net zero and climate resilience; and ensuring that national climate strategies are backed up through the budget.

Ministries of Finance will need to find ways to bring together the full suite of possible fiscal policy measures to drive climate action in coherent smart policy packages (Petrie, 2021). This will enable them to address multiple market and non-market failures and take advantage of the interactions between fiscal instruments.

1) Reforming tax systems and macroeconomic incentives

Function 2a. Transforming economic incentives through carbon pricing, subsidy reform and other fiscal policy measures

Critical role of Ministries of Finance

Establishing carbon pricing is a central pillar of climate policy, requiring active involvement by Ministries of Finance. Carbon pricing has the potential to transform economy-wide incentives to deliver national climate objectives while raising or saving significant government revenues. Explicit carbon pricing schemes typically take two forms: a carbon tax or an emissions trading scheme. Both systems have their advantages and disadvantages, which need to be considered depending on national circumstances (Parry et al., 2022). Some countries may use a combination.

Subsidy reform is an important precursor for Ministries of Finance to consider alongside carbon pricing. Subsidies for fossil fuel consumption and production act as a negative carbon price and can have considerable welfare costs (Parry et al., 2021).

Introducing carbon pricing and subsidy reform can be challenging but many countries have succeeded, starting with **Finland** in 1990, and also including **Denmark**, **Ireland**, **Chile**, **Canada** and the **EU**. Similarly, many countries have been able to introduce and sustain subsidy reforms. **Indonesia** raised petrol/gasoline and diesel prices by 33% in 2013 and another 34% in 2014, saving $15.6 billion or 10.6% of government expenditure, which was reallocated to investments in social welfare and infrastructure (New Climate Economy, 2018).

Ministries of Finance will need to consider ways to supplement carbon pricing and subsidy reforms with other fiscal incentives to transform key economic systems. Support is likely to be needed to overcome the market failures holding back the take-off of new low-carbon sectors. This can take the form of tax incentives, loan programs, guarantees, credit enhancements, grants and non-monetary incentives (e.g. Diaz Anadon et al., 2021). Such measures can support early-stage investment in charging infrastructure for electric vehicles (EVs), or funding schemes to tackle the split incentives associated with energy-saving retrofits in buildings, or cover some of the costs of integrating renewables into the grid. In the consolidation stage, public support can be phased out.

Most countries have long used fiscal incentives to support the growth of new industries; the growth of zero-carbon sectors is no different. Uruguay demonstrates how Ministries of Finance can help drive the energy transition using a powerful combination of fiscal incentives. In the **UK** targeted, timebound subsidies cut the cost of offshore wind by around 70% in a decade.

Ministries of Finance should also work with sector ministries to identify and implement regulatory standards such as phasing in net zero building codes or setting end dates for the sale of internal combustion engines. Regulatory limits have been highly effective at curtailing pollutants and sending a signal for private sector investment and innovation (Stern et al., 2021).

Barriers to action and ways to overcome them

Successful implementation of carbon pricing has met with some challenges, in large part related to knowledge gaps, acceptability and design challenges. To be effective, carbon pricing reforms need to be designed, communicated and implemented well. This includes highlighting the long-term benefits of climate action for the environment, public health, and the economy and carefully considering how to address the short-term costs in the form of raised energy bills. When not designed well, the combination of clear, concentrated costs and opaque, diffuse benefits can be politically challenging, and result in resistance to carbon pricing, including due to concerns around rising energy prices and carbon leakage and competitiveness. These issues are especially pertinent in the context of the current global cost of living crisis.

Introducing carbon pricing and subsidy reform will require Ministries of Finance to work with line ministries to design reforms that are socially just, politically acceptable and inclusive. This will require consultations with all impacted stakeholders, communicating tax or price increases well in advance, efficient and equitable recycling of revenue, and considering how to make the benefits more visible (Bhattacharya et al., 2021; Parry et al., 2021). Carbon pricing can also be considered alongside other ways to price other environmental goods or 'bads', such as through reforming harmful agricultural subsidies, payments for ecosystem services and taxing plastic bag use and methane emissions.

Introducing fiscal incentives to catalyze new sectors requires careful design. Many Ministries of Finance are concerned about unsustainable fiscal commitments and ineffectively matching incentives to overcome the specific barriers in question. These challenges can be addressed by establishing an appropriate incentive timeframe over which support can be phased out. Evaluation should also be undertaken of the benefits and costs over time, the ease of distribution and collection, the specific externalities and other market failures being targeted, and their social progressivity.

In parallel to domestic mitigation action, international coordination is key, to foster global uptake of carbon pricing levels consistent with the Paris Agreement while avoiding carbon leakage (Coalition of Finance Ministers for Climate Action, 2023).

Opportunities for action

Ministries of Finance should work with relevant line ministries to design ambitious carbon pricing schemes and subsidy reforms in line with the Paris Agreement that are socially just, politically acceptable and inclusive, and consider reinforcing pricing or taxation of other environmental goods and bads. As well as domestic action, they should consider international coordination to foster the global uptake of carbon pricing levels consistent with the Paris Agreement.

Ministries of Finance should consider, too, other fiscal incentives to transform key economic systems including energy, transportation and buildings. They should address fiscal incentive design, including an appropriate timeframe over which support can be phased out, and work with line ministries on complementary regulatory standards such as an end date for the sale of internal combustion engine vehicles to provide market certainty on the trajectory of travel.

Ministries of Finance should look to combine a range of these pricing and non-pricing instruments in coherent, smart policy packages. This can help to address multiple market and non-market failures concurrently and enable them to capitalize on the strong interactions between fiscal instruments while avoiding contradictions that can undermine collective impact.

Function 2b. Future-proofing the public finances by redesigning the tax system for net zero and climate resilience

Critical role of Ministries of Finance

Ministries of Finance will need to identify new sources of tax revenue as the transition to net zero proceeds, to unlock new sources of finance for investment and to avoid impacts on tax revenues in the medium to long run. Without action, many economies could feel the impacts of declining tax revenue from fossil-fuel production and consumption, which in some countries account for over 15% of government revenues (GGSD, 2019). In many countries this tax base is already eroding due to increasing energy efficiency and electrification (IMF/OECD, 2021). Although their introduction is a critical first step and tool for countries as they decarbonize, new forms of carbon taxation cannot be relied on to form a permanent part of the tax base as carbon gets squeezed out of the system. This demands that Ministries of Finance identify complementary sources of tax revenue over time as the drive to net zero proceeds.

Physical climate risks are also likely to become ever more significant as macroeconomic impacts trigger contingent liabilities, with known and unknown costs for the public purse. These might include legal claims after climatic events, financial sector bailouts, the need to abruptly shut down or rescue failing fossil-fuel extractive sectors, or relief expenditures and structural development funding to support impacted regions. For instance, there are now more than 2,000 documented cases of climate change litigation filed in more than 40 countries (IPCC, 2022; Setzer and Higham, 2022).

Barriers to action and ways to overcome them

Reforming the tax system for net zero and climate resilience will be a major challenge for Ministries of Finance. It will require them to work with relevant line ministries to address the strong vested interests from political groups, ministries or regional authorities competing for a share of revenues, and citizens' expectations of wealth from new fossil fuel discoveries. It will require them to develop national development plans that set out compelling alternative economic pathways to the production and consumption of fossil fuels.

Some countries are considering ways to diversify their economies and tax base away from fossil fuel production and consumption. Many are looking to become major exporters of renewable energy, which can become an emerging source of tax revenue and reduce pressure on the balance of payments. In **Morocco** strong central government leadership has seen the share of renewable sources in electricity generation increase from 8.7% in 2012 to 37% at the end of 2020. In **Nicaragua** the share rose from 25% in 2007 to 77.3% in 2021. And countries such as **Costa Rica** have prioritized moving away from dependence on gasoline sales revenue from state-owned oil refineries as part of national decarbonization plans.

Countries strongly reliant on taxation of fossil-fuel consumption have a menu of options that can be considered to mitigate any reduction in fuel taxes over time. These include phasing in motoring taxes based on distance, enhancing road user charging, use of feebates and taxes on land property, and reforms to general taxation and taxation of other assets such as financial transactions, wealth and digital services (although there is some concern over the efficiency of some of these forms of taxation). The **Swiss** road user charging scheme, for example, charges trucks for the distance driven rather than the fuel used, complemented by a fee-based instrument for motor vehicles.

Addressing the fiscal risks from physical climate impacts will require Ministries of Finance to deploy a wide range of strategies to enhance climate resilience: improving surveillance of climate-related risks, setting up national mechanisms for quick financial responses to disasters, working with central banks to understand sources of vulnerability for the macroeconomy, and enhancing climate legal expertise. In the **Bahamas**, the Ministry of Finance and Office of the Prime Minister are working together to identify opportunities for investments in climate-resilient infrastructure and the blue economy to reduce known and unknown contingent liabilities from the future impacts of climate risks.

Opportunities for action

Ministries of Finance should review their overall tax revenue system and then make necessary adjustments to ensure it is ready for net zero. This should include identifying new sources of tax revenue for sustainable infrastructure investment and preventing unplanned declines in tax revenues from the production and consumption of fossil fuels. Ministries should make a coherent net zero tax strategy a key element of budget processes and commit to future-proofing future tax policy changes.

Ministries of Finance should take steps to enhance the resilience of the economy to climate risks and reduce the impacts of climate-related risks on the public purse, addressing the potential impacts of growing physical climate risks on the cost of borrowing and the risk of triggering contingent liabilities with known or unknown impacts.

2) Mainstreaming climate in the budget

Function 2c. Using the budget to drive transformation in all sectors of the economy, including through annual budgets and medium-term expenditure frameworks

Critical role of Ministries of Finance

The Ministry of Finance's central role in the budget formulation process is potentially the most important entry point for driving climate action and investment. Existing annual and multi-annual budget allocations will need to be increased or redirected toward policies and investments identified in national climate strategies and investment plans. This requires embedding climate action and investment within all aspects of the budget cycle including the formal processes for the approval of national development plans (NDPs), medium-term fiscal frameworks (MTFFs), and multi-annual budgets and frameworks (Murphy, forthcoming).

The initial strategic phase of the budget formulation process represents a particular opportunity to influence and drive the policy debate on climate action. Ministry of Finance guidance can ensure the Cabinet of Ministers expresses its position on key spending priorities on green transformation early in the fiscal planning and budget process and that any indicative shifts in revenue, debt or budgets form part of the medium-term budget framework.

A growing number of countries are embedding climate action within budget cycles. France published its first Green Budget in 2020. **Nepal's** Ministry of Finance includes a Climate Budget in its Consolidated Financial Statements. Other countries such as **Indonesia, Kenya,** and the **Philippines** have introduced climate budget tagging to identify climate expenditure.

Barriers to action and ways to overcome them

There are often wide-ranging challenges to the use of budget management processes to drive climate action, which usually require substantive political and technical leadership within Ministries of Finance to surmount. In particular, there is often a perceived trade-off between climate action and other policy priorities including economic growth, jobs, energy security and health. Thus, it is crucial that Ministries of Finance look for how climate action can help support other policy priorities and vice versa. Provision of guidance to line ministries on the approach and method for reviewing budget submissions related to climate policy is especially important. This might require Ministries to update their appraisal guidance (see Capability 3b). A wider range of approaches to budget reform are outlined in the full report.

Mainstreaming climate action within budgets does not require entirely new approaches. Ministries of Finance should focus on leveraging established public financial management systems and providing clear guidance to line ministries on the requirements for strategic budget submissions at every stage of the budget cycle with an emphasis on encouraging line ministries to assess the economic and social impacts of new climate policies, the trade-offs between policy measures, and their fiscal implications.

A wide range of tools are available to facilitate green budgeting and public financial management (PFM) practices, including budget tagging, dedicated green budgets, green audits and accounting statements, environmental impact assessments, and budget scoreboards. Some countries are introducing green PFM approaches, which aim to adapt existing public financial management practices to support climate-sensitive policies. Ministries of Finance can also consider mainstreaming climate action into public accounting standards.

Opportunities for action

Ministries of Finance should actively use the budget process to drive climate action and investment across all sectors of the economy. This should include building on existing PFM processes and providing clear guidance to line ministries to ensure provision of adequate information on the economic and fiscal implications of proposed policies and investments.

Function 2d. Greening public investment management

Critical role of Ministries of Finance

Integrating the results of overall investment planning exercises into public investment management is an essential part of the transition to net zero and enhanced resilience. While private finance will play an increasing role in realizing climate investments, a massive ramp-up in green public investment will be needed, including to ensure public infrastructure is resilient to climate change and natural disasters. In low- and middle-income countries alone, damage from natural disasters to core power and transportation infrastructure is already estimated to cost around $18 billion per year, highlighting the urgent need for action (Hallegatte et al., 2019).

Ministries of Finance can play a key role in ensuring climate considerations are integrated into all stages of public investment management (Coalition of Finance Ministers for Climate Action, 2022b; Delgado et al., 2021). Some countries are making progress: the **Mexican** Ministry of Finance and Public Credit has developed a set of quantitative sustainability indicators to be used across all public investment projects, supporting the government in prioritizing projects with higher environmental, social and economic multipliers. **Ethiopia** has developed public investment management guidelines that incorporate climate risk screening tools into public investment decision-making and project planning. **Chile** has developed a methodology for assessing disaster risk in infrastructure projects to incorporate disaster risk analysis and assessment into the preparation and evaluation of all projects submitted to the National Investment System.

Barriers to action and ways to overcome them

Over the past decade, most parts of the world have seen low public investment rates, largely due to weaknesses in national planning systems and limited fiscal space (Coalition of Finance Ministers for Climate Action, 2021b). Scaling up investment has also been hampered by factors including outdated investment management practices and tools, difficulties in project selection, and coordination failures between stakeholders.

Ministries of Finance need to better integrate climate action into national investment planning systems, including by developing explicit policies for public investment to address physical and transition risks and to drive decarbonization and adaptation, and establishing suitable project appraisal processes supported by assessment methodologies (ibid., 2022b). They can also consider updating fiscal rules that govern public spending to support investment in decarbonization.

The IMF has developed the Public Investment Management Assessment (PIMA) to assist Ministries of Finance with this challenging process. This now includes a new Climate-PIMA (C-PIMA), which can help governments identify potential improvements in public investment institutions and processes specifically to build low-carbon and climate-resilient infrastructure.

> **While private finance will play an increasing role in realizing climate investments, a massive ramp-up in green public investment will be needed.**

Opportunities for action

Ministries of Finance should align national climate plans with public investment planning to accelerate investment in reliable, resilient and green public infrastructure. This should include integrating climate action and risk management into all stages of the project cycle for public investment projects.

Function 2e. Greening public procurement

Critical role of Ministries of Finance

Ministries of Finance usually play a major role in establishing frameworks for public procurement across government. Public procurement amounted to $11 trillion or around 12% of global GDP in 2018 (Bosio and Djankov, 2020). It is especially relevant in sectors where public procurement represents a significant percentage of the market, such as the buildings and construction sector, public transportation and health services. An increasing number of countries are incorporating green procurement into their policies. In a survey of 26 OECD countries plus Brazil, all had a framework to support environmental objectives in public procurement, although these vary widely in their stringency (OECD, 2021c).

Implementing sustainable public procurement across government could drive significant benefits for Ministries of Finance by reducing the consumption of resources such as utilities and energy, increasing the quality of goods and services purchased, reducing environmental protection costs, enabling better value for money, and promoting innovation and green jobs (Eguino and Delgado, 2023). The **German** city of Regensburg used green public procurement to save €10 million in energy and water costs over 15 years. **Bogota** used green public procurement to electrify its bus fleet (ibid.).

Barriers to action and ways to overcome them

The adoption of green procurement policies and regulations entails overcoming important challenges such as a lack of trained staff in public purchasing agencies, the lack of common frameworks across government, knowledge gaps among buyers and end-users, and finding suppliers of green products. These barriers can be overcome through measures including training, conducting market research and awareness-raising.

Opportunities for action

Ministries of Finance should consider options for strengthening green procurement, including establishing a legal and policy framework to assist procuring entities to incorporate climate objectives into their procurement procedures and developing a green procurement strategy.

> **An increasing number of countries are incorporating green procurement into their policies.**

Function 3. Reforming financial policy and the financial system and instruments to raise finance at speed and scale

Helsinki Principle 5

Function 3 explains how Ministries of Finance can draw on all forms of finance—public and private, domestic and international—and all instruments to raise, steer and blend sources of finance to drive climate action. It covers: mobilizing domestic revenue to finance investment (Function 3a); greening publicly backed financial institutions and central banks (3b); accessing private capital to finance the transition (3c); providing disaster risk finance and insurance for all (3d); and leveraging international climate finance and reforming the global financial architecture (3e).

Having identified investment needs and put in place supportive policies, Ministries of Finance will have to focus on complementary measures to mobilize finance at the speed and scale required. Most of the investment will be frontloaded, long-term and capital-intensive for sustainable infrastructure in energy, buildings and transportation. In many countries these investments will need to take place in the context of underdeveloped financial sectors and revenue models, with a lack of investment-grade assets, high cost of capital, short tenors in local currency and weak financial safety nets (Bhattacharya et al., 2022). Many sustainable infrastructure investments face a range of market and non-market failures which lead to an undersupply of private capital for investment.

This means that Ministries of Finance will need to draw on all main sources of capital to finance investment needs: public and private, domestic and international, with the percentages of each varying by country and by investment category (Songwe et al., 2022). Ministries will therefore need to ensure financing sources match the spending purpose, maturity required and local context.

Ministries of Finance will need to work at three levels: upstream, midstream and downstream. They can overcome market and non-market barriers to private finance 'upstream' through creating stability in climate policies and regulations (Functions 1 and 3). They can work 'midstream' by identifying pipelines of bankable projects in partnership with the private sector (see Function 1). And they can work 'downstream' by using new financial instruments to connect deep pockets of private capital and funds with investments with appropriate risk-return profiles, drawing on the capabilities of the public sector. This latter point is largely the focus of this section.

However, the role of Finance Minister goes beyond just mobilizing finance for climate investments: it extends to a leadership role in transforming the financial system itself. Ministries of Finance typically play a major role in redirecting capital, supervising and regulating the financial sector, are often major shareholders in publicly backed financial institutions, play an important role in determining the remit of central banks, and act as major stakeholders in the global financial architecture. Hence, they will need to play a major role in aligning public finance flows and in supporting the alignment of all financial flows with Article 2.1(c) of the Paris Agreement (i.e. with adaptation and mitigation goals) and with Goal D of the Kunming-Montreal Global Biodiversity Framework (i.e. with biodiversity goals).

Function 3a. Mobilizing domestic revenue to finance investment

Critical role of Ministries of Finance

For most countries, the tax system will be the bedrock for unlocking public financing to support net zero and climate-resilient infrastructure. The transition to net zero can provide Ministries of Finance with an impetus to explore new ways to broaden the tax base to help finance capital investment in sustainable and resilient infrastructure. The median low-income developing country collects 15% of GDP in tax revenue, emerging markets collect 18% and advanced economies 26%. Most Ministries of Finance in emerging markets and developing countries can therefore consider steps to increase revenues by 3–7 percentage points of GDP (Benedek et al., 2021).

Debt financing for investment is another option. Sovereign debt, which accounts for half of the $100 trillion global debt market,[4] is already a major source of financing for investment for Ministries of Finance. Sovereign bonds can be especially useful for Ministries looking to raise long-dated funding for sustainable infrastructure and adaptation investments.

One rapidly growing category of debt is sovereign green, as well as other thematic, bonds. These have pricing and reputational benefits and good visibility compared with non-green bonds, are quick to bring to the market and can send a strong signal of government commitment to net zero, increasing investor confidence in climate policies. Sovereign green bonds also provide benchmark pricing and liquidity for corporate issuers (Harrison and Muething, 2021).

Enhancing sub-sovereign finance is a further option. By 2050 two-thirds of the global population will live in urban areas (UN DESA, 2018) but local and municipal governments often do not have sufficient revenues to invest in sustainable infrastructure. Ministries of Finance can work with local governments to fill investment shortfalls. Four key entry points for sub-sovereign finance are especially important for Ministries of Finance to consider: (i) land-based financing instruments such as land value capture (LVC) to harness the interrelationships between productive use of land and rising land values for private financing of sustainable urban infrastructure such as mass transit systems; (ii) property taxes using flat rate or beneficial property taxes to fund and incentivize more compact, connected and coordinated urban development; (iii) municipal bonds or debt financing for raising upfront capital to finance sustainable urban infrastructure; and (iv) PPPs to secure private sector capabilities in the design, construction, management and financing of large sustainable infrastructure projects (Coalition for Urban Transitions, 2019).

Barriers to action and ways to overcome them

While tax reform led by Ministries of Finance is often unpopular, a range of alternative forms of taxation can be explored, including new forms of environmental taxation, motoring taxes, road pricing, property and land taxation and reforming general taxation (as described in Function 2). Understanding the political economy of reform is fundamental to success.

In the shorter term it could be easier to increase tax collection and encourage compliance. The operational strength of tax administration agencies and greater international cooperation on base erosion is positively associated with tax collection. Enhancing compliance of VAT can be an especially effective strategy (Gupta and Plant, 2019). **Rwanda** overhauled tax collection procedures and increased total tax revenues by a factor of 10 between 1998 and 2017. This has opened up fiscal space for investment in the new economy.

[4] Bloomberg Markets Data, 14 July 2022. Outstanding debt with a maturity greater than or equal to one year.

Drawing on further debt financing is currently a major challenge for some Ministries of Finance, especially low- and medium-income sovereigns, where high public debt levels and interest rates are putting pressure on governments. Positively, there is some evidence to suggest that as long as public debt is used for investment, it is unlikely to pose significant macroeconomic risks. Many green investments can be self-financing in the medium to long term due to their growth-inducing impacts (Stern and Zenghelis, 2021) and investment in resilience can significantly reduce the threat of sovereign default (Cevik and Jalles, 2021). Moreover, despite the evident deterioration in creditworthiness, the issue appears not to be over-indebtedness or lack of solvency, but one of liquidity and roll-over problems (Songwe et al., 2022). Nevertheless, Ministries of Finance should always assess the affordability of taking on new forms of debt and potential impacts on inflation before proceeding.

There are good examples of countries using debt to finance green investment while others are revisiting their fiscal rules or using debt-for-climate swaps to enhance their fiscal space. Belize made a debt-for-nature swap in 2021, buying back its debt at a significant discount in exchange for increasing marine conservation efforts. There have been many successful green, blue, SDG and sustainability bond issuances, including from **Fiji**, **Chile**, the **Netherlands**, **Nigeria**, **Thailand** and **Italy**. **Peru's** 2021 $3.25 billion Sustainability Bond issuance was the largest-ever sustainability bond from Latin America and the Caribbean (Harrison and Muething, 2021). All of these examples overcame barriers to identifying expenditure, ringfencing proceeds, accessing international markets and finding adequate fiscal space.

Many Ministries of Finance are working to support local governments to transform cities for better economic and climate outcomes. In 2014 in **South Africa**, Johannesburg became the first sub-Saharan African city to issue a green bond for investment in sustainable urban infrastructure.

Opportunities for action

Ministries of Finance should think innovatively to identify new sources of tax revenue to drive investment for the net zero, resilient transition. They should follow the principles of progressive and socially just tax reform and consider the potential trade-offs and synergies between economic, social and climate objectives. They should also give attention to strengthening tax collection.

Ministries of Finance should consider how to use public debt to support investment, including through green bonds, within a responsible macro-prudential framework. This could include: (i) developing clearer and predictable fiscal rules that avoid placing artificial ceilings on debt service costs as a percentage of total government expenditure or GDP without taking account of the contribution of investment in green and resilient infrastructure to growth and net worth; (ii) developing a green bonds framework with clearly defined investment priorities, impact reporting and software to integrate into the public investment system.

Ministries of Finance should work closely with sub-national governments to enhance access to sustainable sources of finance for investment in sustainable urban infrastructure, especially given the impacts of COVID-19 on the use of public transportation systems. For example, they can identify the revenue sources most readily transferrable to fund sustainable urban infrastructure by local governments and introduce national land value capture and PPP frameworks.

> **There is some evidence to suggest that as long as public debt is used for investment, it is unlikely to pose significant macroeconomic risks.**

Function 3b. Greening publicly backed financial institutions and central banks

Critical role of Ministries of Finance

GIB = Green investment bank
NDB = National development bank
SOE = State-owned enterprise
SWF = Sovereign wealth fund

Ministries of Finance are often major share- or budget-holders in publicly backed institutions including national development banks, sovereign wealth funds and state-owned enterprises. There are currently more than 250 national development banks (NDBs) globally with assets in excess of $5 trillion. Over 70% of oil and gas production assets and 60% of coal mines and plants globally are state-owned (IEA, 2020; OECD, 2021c). Of the 128 sovereign funds across 68 countries, which collectively manage $9.3 trillion of assets, only 30% have a target to reduce emissions across their investments (Kyriakopoulou et al., 2021).

Depending on ownership structures and budget processes, Ministries of Finance can support these institutions to manage climate risks and act as anchor investors in the carbon-neutral economy. Some NDBs have already been providing financing for low-carbon, climate-resilient projects for many years, such as **Germany's** KfW, **France's** AFD and Bancoldex, the Colombian Bank for External Commerce. In terms of sovereign wealth funds (SWFs), **Italy's** Cassa Depositi e Prestiti recently published a Green, Social and Sustainability Bond Framework. **Norway's** Government Pension Fund Global is taking steps to become world leading in responsible investment. There are also emerging initiatives to green export credit and trade finance such as by the **Dutch** Ministry of Finance.

In countries without NDBs, Ministries of Finance can create public green investment banks (GIBs) and GIB-like entities. The historic transformation of today's industrial powers demonstrate the significant role that Ministries of Finance have typically played in creating specialized agencies to drive transformation and investment. GIBs and GIB-like entities have been successfully established in many countries at the national, state and city levels, including in **Japan**, **Malaysia**, **Switzerland**, the **UK** and **California**.

Ministries of Finance can also work closely with central banks to drive climate action. Central banks usually manage sizeable reserve portfolios with collective assets under management at over $15 trillion globally, including foreign exchange reserves, own funds, pension portfolios and third-party portfolios (Kyriakopoulou et al., 2021). While many central banks are embracing the climate action agenda, their roles to date have been largely focused on ensuring the resilience of the financial system rather than helping to drive investment in the new economy.

Ministries of Finance can play a critical role in enabling central banks to accelerate climate action by clarifying their missions. Many Ministries of Finance have the power to update central banks' remits and responsibilities to bring them in line with governments' own net zero commitments, especially those with mandated objectives to support the economic priorities of their government (Dikau and Volz, 2021). They can use this to encourage central banks to factor climate change into their monetary policy frameworks, macroeconomic modeling, eligibility criteria for lending facilities and screening of assets in purchases. On the prudential front they can require financial institutions to disclose their exposure to climate-related risks, stress-test the potential losses, or adjust capital requirements, or require mandatory transition plans (Dikau et al., 2022). They can also encourage central banks to develop strategies to leverage their reserve portfolio for sustainable investment. The **UK** represents an instructive case: the Treasury updated its remit letter in 2021 to enable the Bank of England to explore the implications of the government's net zero commitment for its operations. Strong coordination between Ministries of Finance and central banks on fiscal and monetary policy is also critical.

Barriers to action and ways to overcome them

While many Ministries of Finance are in a position to play a role in shaping the strategies of NDBs, GIBs, SWFs and SOEs, there are a number of barriers to overcome. These include shared ownership structures with other line ministries, being minority shareholders and poor understanding of climate risks and opportunities by senior leadership. Fortunately, it is usually in the interests of publicly backed institutions to collaborate with Ministries of Finance as they work to manage their own risks, fulfill their mandate and access new sources of international capital, although some can be highly protective of their independence. This starts with strategic engagement with leadership teams at the board level and with other relevant ownership entities, in the spirit of partnership. Supporting strategies can include issuing investment guidelines, ensuring there are sufficient resources for institutions to measure and manage their portfolios' exposure to climate risks, and reviewing management incentive structures.

Ministries of Finance may face strong resistance to increasing the role of NDBs in climate action or establishing GIBs, deriving from poor understanding of the economic case for climate action and sustainability of long-term funding. However, all these issues are surmountable: for example, by exploring a wide range of funding sources for GIBs, including use of general budgets, carbon tax revenues, utility surcharges, loans, bond issuances, or support from multilateral and regional development banks.

Ministries of Finance may also face strong opposition to revisiting the remits of central banks, given boundaries in mandates that delineate the remit of action of each authority. However, it is clear that climate inaction poses a significant risk to the core priorities of many central banks. As the links between fiscal and monetary policy become ever clearer in the context of the current interlinked crises, there is an opportunity for Ministries of Finance to engage with central bank leadership in a spirit of partnership to evolve their role and meet current challenges.

Opportunities for action

Ministries of Finance should look for opportunities to leverage their shareholder positions in SOEs and their close relationship with central banks to drive climate action and investment. This can include:

- **Greening NDBs, export credit agencies, SWFs and SOEs** by reviewing and revising their mandates, encouraging nature- and climate-related financial disclosures, engaging with boards and minority shareholders, and providing effective management incentives and awareness- and capacity-building activities.
- **Where NDBs do not exist, considering the set-up of dedicated green investment banks,** addressing establishment costs, level of independence, mandate and culture, financing approaches and level of investment risk before proceeding.
- **Updating central banks' remits and responsibilities to bring them in line with government climate commitments.** Beyond explicit direction on mandates, Ministries of Finance can consider climate expertise in central bank senior appointments, introducing investment objectives for reserve management, encouraging sovereign green bond issuance and new fiscal and monetary policy coordination mechanisms.

Ministries of Finance should look for opportunities to leverage their shareholder positions in state-owned enterprises and their close relationship with central banks to drive climate action and investment.

Function 3c. Accessing deep pockets of private capital to finance the transition

Critical role of Ministries of Finance

The private sector will need to provide a considerable portion of the capital for investment in the zero-carbon, climate-resilient transition. Ministries of Finance will therefore need to work with the financial and wider private sector to access deep pockets of capital. $130 trillion worth of private capital through members of the Glasgow Financial Alliance for Net Zero (GFANZ) is already committed to aligning activities with net zero and is increasingly being targeted at Paris-aligned lending and investments (CPI, 2021). The 100-plus financial centers around the world can also play a major role in driving sustainable investment (FC4S, 2022; UNEP, 2018).

Ministries of Finance also need to build the capacity of domestic capital markets to fund investment in the net zero, climate-resilient transition. Poland's Capital Market Development Strategy, for example, is combining capital market development with the strengthening of sustainable finance.

Ministries will need to work closely with central banks and financial supervisors to ensure the resilience of the financial system. Physical climate and transition risks can impact domestic and global financial sectors in five main ways: (i) *credit risk,* where climate-related risks reduce a borrower's ability to repay their debts; (ii) *market risk*, where an abrupt transition scenario means financial assets lose their market value, leading to fire sales; (iii) *liquidity risk*, where banks' balance sheets hit by credit and market risks lead them to being unable to refinance themselves; (iv) *insurance risk*, where there are higher than expected insurance claim pay-outs due to physical risks; and (v) *operational risk*, where financial institutions are affected by their operations' direct exposure to climate-related risks (Coalition of Finance Ministers for Climate Action, 2021a).

Sustainable finance roadmaps are emerging as a way for Ministries of Finance to organize the different actors involved in sustainable finance around a common conception of their roles and responsibilities. These complement and build on the idea of roadmaps designed specifically for the financial sector. Spearheaded over the last decade by the UN, sustainable finance roadmaps provide recommended actions to enhance sustainable finance within and outside financial systems (UNEP/World Bank, 2017). More than 40 roadmaps have been drafted with public and private sector input and a leading role for Ministries of Finance (ibid.), including **Australia's** Sustainable Finance Initiative (2020), the **UK's** Green Finance Strategy (2019), **Indonesia's** Sustainable Finance Roadmap Phase II (2021–2025) and **South Africa's** assessment of financing a sustainable economy.

Barriers to action and ways to overcome them

Ministries of Finance face significant barriers to working with other actors across government to mobilize private capital for the transition. Sustainable investments tend to be frontloaded, capital-intensive and subject to a range of risks. This usually means that some form of public investment or risk mitigation mechanism, backed by a vehicle for collaboration between actors, is often required to help leverage private capital at significant multiples. These risks are especially acute in emerging markets and developing countries, which account for less than 6% of the $130 trillion in GFANZ (GFANZ, 2021).

Few Ministries of Finance have a sufficient understanding of the systemic risks to the financial system, partly because of backward-looking risk assessment models that prevent full appreciation of future systemic risks and opportunities (Bolton et al., 2020). This is why it is so important for Ministries of Finance to work with line ministries, central banks, regulators and supervisors to identify and address the main climate-related risks to the financial sector, including through scenario analysis. Ministries of Finance can also encourage their central banks and financial sector to participate in international networks to facilitate knowledge-sharing and collaboration such as the Network of Central Banks and Supervisors for Greening the Financial System (NGFS), Task Force on Climate-related Financial Disclosures (TCFD) and the UNDP Financial Centres for Sustainability (FC4S) network.

Developing sustainable finance roadmaps can be effective for helping Ministries of Finance work collaboratively to overcome the country- and sector-specific barriers to private finance. Recent analysis by the Coalition and FC4S identifies key criteria for an effective sustainable finance roadmap (FC4S, 2022), including a broad consultative process, building a strong narrative for financial system alignment with the Paris agenda and SDGs, and identifying the agency or institution responsible for implementing each recommendation. The issue of transition finance should also be considered to help transform existing carbon emitters. These documents can provide clarity on the policy trajectory ahead, giving the financial sector the confidence they need to invest in the transition.

Blended finance instruments are one example of a mechanism Ministries of Finance can consider to help address the specific risks that limit private investment flows. In the absence of well-functioning markets where such risks would otherwise be mitigated or not arise in the first place, using blended finance can overcome different categories of risk and help match risk-adjusted returns to investor requirements. Several governments have launched blended finance mechanisms with active involvement or leadership from Ministries of Finance. Indonesia, for instance, has embraced blended finance to bridge the gap between investment needs and availability of public finance through platforms such as the **Indonesia** Infrastructure Guarantee Fund and SDG Indonesia One-Green Finance Facility.

Opportunities for action

To help raise, steer and blend private finance for investment at the speed and scale required, Ministries of Finance should consider establishing multi-stakeholder platforms or taskforces to support the creation and implementation of Sustainable Finance Roadmaps within and outside the financial system. These roadmaps could include measures such as:

- Creating strong investment pipelines and building mechanisms for sustained engagement with the private sector.
- Enhanced use of blended finance to help address investment risks and realize the potential for public and multilateral finance to act as a catalyst for private finance.
- Working with other line ministries to establish country investment platforms in a small number of strategic priority areas such as ending coal use, phasing out fossil fuel vehicle use, ending deforestation, or investing in resilience.
- Working with central banks and financial regulators to encourage the development of sustainable financial centers through working with existing centers to channel their expertise to help deliver climate action and sustainable development.
- Working with line ministries, central banks, regulators and supervisors to identify and address the main climate-related risks to the financial sector, including by encouraging nature- and climate-related financial disclosures.
- Encouraging central banks and financial sector actors to participate in international networks to facilitate knowledge-sharing and collaboration.
- Effective approaches for disaster risk financing and mobilizing international climate finance (see Function 3d).
- Effective approaches for provision of transition finance for high-emitting sectors.

Function 3d. Providing disaster risk finance and insurance for all

Critical role of Ministries of Finance

Ministries of Finance will play an ever-growing role in the provision of disaster risk financing and insurance in the decades ahead. The macroeconomic costs of natural disasters, including immediate decline in GDP growth and permanent GDP loss during the years following a major disaster, affect government budgets and can impact the livelihoods of millions. Globally, it is estimated that the occurrence of at least one climate event per year is associated with a 0.8% increase in the fiscal deficit of GDP for lower-middle-income countries and 0.9% of GDP for the low-income group (Alejos, 2018).

Successful risk financing and insurance measures are almost always anchored in and driven by Ministries of Finance, even if financing cuts across different agendas and is often seen as belonging to specialized agencies (World Bank, 2014). Disaster risk financing and insurance typically aim to strengthen the financial resilience of four different groups: national and local governments; homeowners and small and medium-sized enterprises (SMEs); farmers; and the poorest—through a combination of sovereign disaster risk financing, property catastrophe risk insurance, agricultural insurance and disaster-linked social protection.

Barriers to action and ways to overcome them

The use of disaster risk financing instruments requires a certain level of experience and capability for advance planning within the Ministry of Finance and wider government. Supporting comprehensive and affordable insurance coverage of disaster risks across economies with varying levels of insurance market development is a particularly acute challenge, as are data availability and modeling capability. Success in establishing effective mechanisms is more likely to be assured with strong leadership by the Ministry of Finance with the private sector as an essential partner and disaster risk financing and insurance viewed as a long-term agenda.

While there are no simple answers to these challenges, a growing number of countries are leading the way. In **Colombia**, **Indonesia**, **Panama** and **Peru**, the Ministries of Finance have established fiscal risk management divisions to identify, quantify and manage fiscal risks from natural disasters. **Jamaica** has a comprehensive disaster risk financing strategy led by the Ministry of Finance. Four Pacific Alliance countries recently developed a catastrophe risk insurance bond that provides risk coverage differentiated by country: $500 million for **Chile**, $400 million for **Colombia**, $260 million for **Mexico** and $200 million for **Peru** (Eguino and Delgado, 2023).

Opportunities for action

Ministries of Finance should look to develop comprehensive risk finance and insurance strategies, as part of broader sustainable finance efforts. This could include establishing specialized fiscal risk management divisions, encouraging the development of disaster risk financing tools and markets, enhancing the financial capacity of insurance companies and developing strategies for engaging with the private sector.

Function 3e. Leveraging international climate finance and reforming the global financial architecture

Critical role of Ministries of Finance

Ministries of Finance in eligible countries can often draw on multilateral development banks (MDBs) and development finance institutions (DFIs) to provide finance to support their sustainable investment strategies. The finance provided often has long maturities, low interest rates and preferred creditor treatment. These institutions can combine loans with grants, technical assistance and policy and institutional guidance, and play a countercyclical role during downturns. They can be especially critical in helping to tackle the high cost of capital in emerging markets and developing countries. The International Monetary Fund recently established the Resilience and Sustainability Trust, with a target base of $42 billion, to help countries build resilience and ensure sustainable growth (IMF, 2022b). International and bilateral official development assistance (ODA) worth over $179 billion globally can also be used to support climate investments in poor and vulnerable countries (OECD, 2021a). Dedicated climate funds including the Global Environment Facility, Green Climate Fund, Special Climate Change Fund, Least Developed Countries Fund and Adaptation Fund serve similar goals.

Ministries of Finance that are major shareholders in the MDBs, including regional development banks, can call for enhanced support for climate action. Working hand-in-hand with Foreign Ministries and development agencies, they can encourage the MDBs to stretch their current balance sheets. One calculation suggests the major MDBs could raise lending by $750 billion with no change in credit rating (Humphrey, 2022). They can also call for proactive capital increases by the global community for the International Development Association and Climate Investment Funds, and for under-resourced regional development banks.

Voluntary carbon markets and mechanisms under the Paris Agreement's Article 6 represent potential sources of concessional finance that Ministries of Finance can explore for decarbonization, especially for emerging markets and developing countries (Songwe et al., 2022). Voluntary standards operate independently and allow projects and programs to issue credits, subject to any legal requirements set by governments. Article 6.2 allows countries to trade emission reductions or removals ("internationally transferred mitigation outcomes") through bilateral or multilateral agreements. Article 6.4 will create a centralized market with common standards for certain types of credits, which governments can authorize private actors to sell to private or government buyers. Through these channels, countries can attract carbon finance for target projects that may be challenging for other actors to reach, such as for integrated forest management, deploying clean cookstoves, and conservation and restoration of coastal ecosystems. For instance, the Africa Carbon Market Initiative is implementing a roadmap for African countries to issue up to 300 $MtCO_2e$ per annum, mobilizing $6 billion, by 2030 (ACMI, 2022).

Country platforms are another option for bringing together providers of multiple sources of finance in key sectors such as energy or transportation. Country platforms combine political leadership to tackle a problem of broader global benefit such as phasing out coal or ending deforestation by a particular date, with a significant package of concessional financing and coordination structures (Songwe et al., 2022). They are vehicles designed to coordinate and leverage private and other sources of finance at significant multiples. They draw on blended and innovative financial instruments to improve risk–return ratios and connect standalone private and other sources of finance with major sector priorities in NDCs, NAPs and long-term strategies. An example is the International Just Energy Transition Partnership launched by **South Africa** at COP26 with France, Germany, the UK, US and EU, who committed to $8.5 billion over the next 3–5 years.

Barriers to action and ways to overcome them

Many eligible countries are not yet well equipped to receive pools of global financial resources for climate action through the MDBs and DFIs. Combined with often challenging MDB and bilateral donor access requirements and different MDBs and donors with different geopolitical motivations, this acts as a barrier to accessing finance. Thus, many are not yet 'climate finance ready', which refers to being able to access, allocate, distribute and make use of financial resources for climate action.

Ministries of Finance should therefore take steps to enhance their capacity—and that of relevant line ministries—to proactively identify and coordinate sources of international climate finance. This process is not likely to be driven by external agencies in the main nor to be as effective as strong domestic leadership. Ministries of Finance can establish a dedicated coordination entity, often called a Climate Finance Unit (CFU), within the Ministry of Finance or key sectoral ministry, and can enhance or establish new financial vehicles to ensure resources are effectively and transparently managed. **Brazil** and **Mexico** have both used their national development banks to act as the principal fiduciary agencies to organize the dispersal of international climate finance.

Ministries of Finance need to act cautiously when harnessing the potential of carbon markets, which requires strong governance and institutional capacity, including to ensure robust environmental, human rights and wider safeguards (Florini and LaForge, 2022). Technical capacity is also needed to develop an approach to carbon markets that is embedded in governments' wider strategies and development priorities. Ministries of Finance should be especially cognizant of the live debates concerning the role of voluntary carbon markets in wider decarbonization strategies. Strong engagement between coalitions of market stakeholders and host country governments is key to determining the appropriate role that credits can play in their financial strategies and to navigate issuance.

Country platforms can also help to overcome the barriers to investment but they must be carefully designed if they are to be effective. Challenges often include a lack of incentives for governments to take the lead; complex stakeholder coordination; low technical and implementation capacity; and potential constraints on the effective involvement of the private sector. As a result, country platforms tend to work better when designed to deliver specific targets or objectives tied to a major government priority such as phasing out coal or use of fossil fuel vehicles.

The **Bridgetown Initiative** contains five specific proposals that could make a significant difference to international climate finance. And the new **Sharm el-Sheikh Implementation Plan** from COP27 considers the design of a new funding mechanism for assisting developing countries that are particularly vulnerable to the adverse effects of climate change in responding to loss and damage, including through mobilizing new and additional resources. The Summit on a new **Global Financing Pact** to be held in June 2023 in Paris also intends to draw from the proposals and commitments to ensure support for the most vulnerable countries to address their most urgent needs and to undertake necessary reforms to international financial architecture to accelerate an equitable global transition toward net zero.

Opportunities for action

Ministries of Finance—especially in ODA-eligible countries—should leverage international climate finance and encourage the strengthening of the global financial architecture by:

- Working with their Development Ministries to develop international climate finance strategies that set out the investment gaps for a country to achieve its climate strategies, with key actions to address these needs.
- Proactively calling for enhanced support for climate action from MDBs, exploring options for scaling up finance and reducing the cost of capital. Shareholders and other countries should continue to encourage an increase in international climate finance, especially concessional finance and finance for adaptation investments.
- Proactively considering what contribution international carbon markets can make to their net zero investment plans by filling gaps in the existing landscape of climate and development finance. This will involve working closely with Ministries of Climate, Environment and Energy to clarify NDCs, establish international agreements under Article 6, and create legal frameworks and approval processes that encourage private investment in carbon market projects. These frameworks must enforce appropriate safeguards and ensure additionality of carbon finance.

Crosscutting: ensuring a just transition

Ministries of Finance will only be able to reap and sustain the full economic and wider benefits from the net zero, climate-resilient transition if it is a just one. For Ministries of Finance the rationale to support the just transition is twofold: first, to address the fundamental political economy of net zero and build public trust; second, to build a strong and resilient net zero economy by developing essential skills, capabilities and social institutions, and ensuring that those affected by the transition are involved in shaping it. Protests against reducing energy subsidies in developing countries, the *Gilets Jaunes* movement in France that rejected the government's plans to increase fuel taxes, and the failure in many countries to retrain coal workers and generate employment in other industries have illustrated the challenges and lost benefits facing governments that do not adequately consider social issues in policy design. The just transition is not a 'nice to have' afterthought, but a critical enabling factor for the successful shift to net zero (ILO, 2018; Robins, 2022).

The just transition cuts across Functions 1–3 above, as they touch on many aspects of climate policy that require proactive consideration of the distributional consequences, social dialogue and stakeholder engagement in their design and execution, from carbon pricing and subsidy reform to ensuring adequate investment in economy-wide skills and training.

How Ministries of Finance can support a just transition

Ministries of Finance should ensure that climate policies consider potential positive and negative social impacts and that all stakeholders are included in decision-making. Just transition plans can be a potentially useful vehicle to ensure that national climate strategies are politically attractive and economically beneficial for all citizens. Common themes and sectors to consider include: (i) managing potential job losses in impacted sectors through regeneration and retraining schemes; (ii) managing energy subsidy and carbon pricing reforms through targeted social-protection measures and ways to ensure revenues are rerouted toward job creation and sustainable infrastructure provision; (iv) resilience and adaptation policies that ensure that all are protected against climate risks; (v) policies to incorporate the just transition into financial standards and regulation; and (vi) advancing a gender-sensitive transition.

Emerging examples of good practice can inform and guide Ministries of Finance and other key line ministries, especially in the energy sector. These include: **Canada's** effort to mitigate the negative social impact of its coal phaseout plan; **South Africa's** Just Transition Transaction, which provides a mix of mitigation and retraining of workers in the state utility Eskom; the **EU's** Just Transition Mechanism, a tool to ensure that the transition in **Europe** does not leave anyone behind; **Ireland** provides a strong example of how to link carbon taxation to the just transition.

Opportunities for action

Ministries of Finance should work with other line ministries and stakeholders to develop just transition plans and policies for all key sectors of the economy. Climate policies must consider potential positive and negative social impacts and affected stakeholders must be included in decision-making.

Capability 1. Leadership and governance for driving climate action

Helsinki Principle 2

Leadership is likely the most significant capability Ministries of Finance need to build. This section touches on all facets of leadership but pays particular attention to strengthening the mandate of Ministries of Finance on climate change, organization-wide strategies, and the institutional set-up needed to enable climate leadership.

Ministries of Finance need to bolster their leadership capability to underpin the work they do to enhance their core functions. This is critical to ensuring climate change considerations are prioritized and mainstreamed into the work of the Ministry. Climate leadership should be supported by a clear mandate, strategy and effective institutional arrangements. Ministries of Finance can be empowered to lead on climate change by the head of government and will need political support from them and from a high-level coordination mechanism on climate change.

Significant institutional barriers may challenge Ministries of Finance in fulfilling their leadership role in driving climate action. They could include: a lack of commitment to climate change objectives at senior management level in the Ministry of Finance and lack of internal strategy on climate change, with implications for allocating resources; a lack of clarity on the overall mandate of the Ministry of Finance on climate change and its role in related national processes; competing priorities pushing climate action into the background without attention to how climate action can help achieve these objectives, which makes it challenging to maintain climate as a priority area that requires investment; ambiguity in internal responsibility for climate change, which leads to insufficient attention to climate action, duplication and challenging relationship with line ministries; and a lack of trust among partners inside and outside government, based on doubts that the Ministry of Finance can give sufficient attention to climate alongside traditional economic and fiscal policy objectives.

How Ministries of Finance can overcome barriers to enhancing leadership capability

To help drive strong relationships with other agencies and to mobilize internal capacity, it is helpful for Ministries of Finance to clarify their own mandates and objectives and/or develop an internal strategy for driving climate action. Based on their core mandate of protecting fiscal health and sustainable economic growth, Ministries of Finance already have an implicit obligation and authority to act on climate change. Some Ministries have a mandate specifically outlining an obligation to act (e.g. via a climate law or governmental order for all agencies to address climate change). However, the Ministry of Finance itself can initiate clarification of its mandate to explicitly include climate change. This can be done via a mission statement, by including climate change objectives in the Ministry's internal strategy, or through developing a specific internal strategy focused on climate change. Any mission, vision or strategy should support the operationalization of Article 2.1c of the Paris Agreement, "making financial flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development." A mandate can highlight the need for a whole-of-government approach and collaboration with Ministries of Environment, Economy, Trade, and Industrial Strategy, central banks and other actors, and the importance of addressing climate financial risks, and the economic and competitiveness aspects related to climate action.

Having specific objectives on climate enables Ministries of Finance to get internal buy-in to the agenda and assess the required expertise, resourcing and the best institutional set-up. Where there is a clear mandate, there is also authority to act. Explicit mandates on climate change help ensure there are resources, expertise and capital. In countries that lack sufficiently strong top-level drive for the Ministry of Finance to engage on climate, the Coalition of Finance Ministers can play a key role by showcasing examples of action by other Ministries.

A number of countries are introducing changes to the Ministry of Finance's mandate to explicitly address climate change. In some countries mandate changes were made from the top, following an adoption of a climate law or as a result of a regulation requiring integration of climate concerns into the operations of all relevant agencies (e.g. **Ireland**), or through the commitment by the head of state (e.g. **Bahamas**). In others, personal leadership by the Minister was the driving factor (e.g. **Malaysia**). **Denmark's** Ministry of Finance changed its mission statement to include climate and environmental development as a top-level objective alongside traditional fiscal and economic priorities.

Organizational strategies on climate change can help Ministries of Finance operationalize the overall mandate into a set of concrete climate change objectives and actions required to support them. Internal strategies help to set out internal priorities and create internal buy-in for the objectives and actions; designate responsibility for delivering and coordinating climate change-related work internally; signal the Ministry's commitment and role in overall climate governance to other departments and stakeholders; and determine the capabilities needed and how they can be built internally and through external partnerships. Ministries of Finance can also use internal strategies to set out how they plan to ensure the sustainability of their own operations. A growing number of Ministries of Finance have integrated climate change into their strategy (e.g. **Ireland**, **Finland** and **New Zealand**). Some already have dedicated climate strategies that provide more detail on priorities and planned activities (e.g. **Chile** and the **US**).

Strengthening Ministry of Finance engagement on climate change can be accelerated by reforming internal institutional set-ups to include dedicated internal capacity for climate change. To avoid significant gaps and duplication and to ensure resources are deployed effectively, Ministries of Finance need to assign clear responsibilities for the key areas of work related to climate change. Effective processes for internal and external collaboration are essential to tap into relevant expertise and knowledge distributed among internal teams and external stakeholders.

At the minimum, Ministries of Finance need to have designated and qualified staff who consistently act as focal points on climate change, decarbonization and climate resilience issues. Smaller Ministries or those with resource constraints have been identifying existing staff with relevant expertise and adjusting their responsibilities to introduce climate change. Other Ministries have been creating dedicated climate units combining redeployment of existing staff and recruitment of experts, which has contributed to creating internal capacity, increased overall awareness among staff and enabled better coordination and a more effective response (e.g. in **Denmark**, **Fiji** and **Ireland**). Alternatively, a hybrid approach can be used where a small team coordinates work on climate, with the bulk of it done within existing teams (e.g. the **US** Climate Hub).

Opportunities for action

Ministries of Finance should build their leadership capabilities by establishing clarity on their top-level political priorities for climate action, communicating them internally and externally, and mobilizing capacity through clear institutional arrangements and responsibilities on climate change. Ministries of Finance should consider: (i) developing their own explicit mandate with respect to driving climate action, including through modifying the current mandate or strategy; (ii) developing and publishing an organizational strategy on climate change; (iii) designating clear responsibilities for coordination and delivery of climate change-related work internally, and collaboration and coordination with other departments and stakeholders; (iv) determining the capabilities needed to meet climate objectives and a plan for building this internally and externally; and (v) ensuring the sustainability of their own operations.

Ministries should consider reforming internal institutional arrangements to ensure dedicated capacity for climate change issues. This could include setting up effective processes for internal and external collaboration, ensuring clear responsibilities for key areas of work, and having designated and qualified staff who act as focal points. Where resources permit, dedicated climate units combining redeployment of existing staff and recruitment of new experts should be considered; alternatively, a small team can be dedicated to coordinating climate work.

Ministries of Finance should seek opportunities to capitalize on synergies in addressing competing priorities (perceived or actual) due to the current multiple crises (e.g. energy, climate and cost of living). They should coordinate with other agencies on a unified response and communication across government and to external stakeholders and the general public accordingly.

Capability 2. Coordination and collaboration for whole-of-economy climate action

Helsinki Principles 2 and 4

This section discusses the importance of ensuring a whole-of-government approach to climate change in which Ministries of Finance play a central role, and the need to develop collaborative relationships between Ministries of Finance and key line ministries.

Climate change is a 'horizontal' issue, in that it covers all sectors of the economy, nearly always with significant economic and fiscal impacts and trade-offs. Cooperative and coordinative efforts through a whole-of-government approach will be critical to solving the complex policy challenge of climate change.

Effective coordination on climate change requires engagement by multiple stakeholders across policy areas and sectors. Ministries of Finance should seek to promote a collaborative approach, working closely with Heads of State, Ministries of Environment, Planning, Energy and Transport, and other relevant institutions. Being proactive in the areas of direct and shared responsibility will be critical. Inter-ministerial coordination is particularly important to avoid duplication of tasks, to identify and cover potential policy gaps, and to improve buy-in to climate change objectives and policies from sectoral line agencies. It also enables the sharing of and building on relevant expertise spread across agencies. Most countries establish formal coordination mechanisms on climate change, which often take the form of inter-ministerial commissions or climate councils, through which Ministries of Finance can take an active role. Coordination and collaboration with non-governmental stakeholders, such as civil society, the private sector and the international finance and expert community, will similarly be critical for improving the quality and support for climate policy proposals.

Enhancing the collaboration capabilities of Ministries of Finance to drive climate action faces challenges that typically include: a lack of horizontal policy alignment and a disparity between climate change goals and the objectives specified in strategic documents setting the economic development agenda; ambiguity around mandates and the distribution of responsibilities for climate change among agencies creating potential duplication and institutional conflicts over decision-making; the Ministry of Finance not being present or engaged in a meaningful way when key climate strategies and policies are being developed; mistrust of public–private engagement, due in some countries to the private sector being reluctant to engage in consultations, given skepticism and general mistrust in public bodies; insufficient priority and resource given to coordination on climate change either by the Ministry of Finance or the line departments, which impedes meaningful interaction and inputs;

insufficient coordination on international financing and funding requirements leading to disparate approaches in different sectors, creating challenges for financing and signaling uncertainty for investors; and challenges in the relationships between Ministries of Finance and Environment Ministries, due to differences in subject expertise and perspectives.

How Ministries of Finance can overcome barriers to coordination and collaboration

Many coordination challenges can be addressed through clarifying the respective mandates among the different agencies and adapting the mandate of the Ministry of Finance to include climate action. Ministries of Finance taking a clear role and participating actively in inter-agency coordination and collaboration mechanisms on climate change can be especially important for improving climate policy alignment and coherence and can lead to more informed cross-sectoral policy decisions and ensure a whole-of-government approach. Collaboration also helps maximize mutual capacities and builds on joint expertise. Feedback mechanisms should be introduced in the coordination and consultation mechanisms for interactions with both public and private stakeholders. For example, when holding a policy consultation, it is important for the Ministry of Finance to provide information on how the input received has been treated and to be transparent on the next steps.

Recognizing their mutual differences in backgrounds, relative strengths and constraints should help Ministries of Finance to improve collaboration with Ministries of Environment. It may be useful to consider holding joint seminars or informal discussions, for example to share latest developments on the relevant policy instruments or learning from past projects, to bridge potential differences in expertise and learn from each other. This may also include Ministries of Finance joining international climate negotiations, especially on finance.

A growing number of Ministries of Finance are engaged in national climate change strategies and policies through participation in inter-agency coordination mechanisms. In some countries the Ministry of Finance plays a leading role in coordinating the whole-of-government response to climate change (e.g. in **Denmark**). Ministries of Finance are also engaging in collaboration and coordination with line ministries to develop and implement climate-related policies in key sectors. **Jordan** has set up an institutional mechanism for NDC implementation and both the Ministry of Finance and Ministry of Planning are actively engaged in advancing the implementation. The whole-of-government approach taken in the **US** to tackling the climate crisis includes a significant number of climate-related inter-agency processes involving the Treasury.

Many Ministries of Finance are developing their own coordination mechanisms and/or participating in existing mechanisms with other stakeholders, including the private sector, civil society and at-arm's-length agencies. For example, some Ministries of Finance host working groups or roundtables on specific sustainable finance issues involving non-governmental stakeholders (e.g. **Chile** and **Ireland**).

Opportunities for action

Ministries of Finance should have a central and active role in inter-agency and stakeholder coordination and ensuring a whole-of-government approach to climate change policy. This requires:

- Identifying areas requiring collaboration around national development and climate strategies, investment planning, macro and fiscal policy, financing, and the other key capabilities.
- Clarifying their mandate and developing objectives on climate change (as discussed in Capability 1) and working with other agencies to clarify theirs.
- Participation of the Minister and Ministry of Finance in existing inter-ministerial coordination mechanisms and allocating resources accordingly.

- Ensuring internal governance arrangements within Ministries of Finance explicitly address intra- and inter-departmental coordination, plus engagement with non-governmental stakeholders.
- Expanding day-to-day working collaboration with line ministries and other stakeholders to maximize mutual capacities and build on joint expertise.
- Strengthening collaborative relationships between Ministries of Finance and Ministries of Environment, recognizing mutual differences in backgrounds and relative strengths.

Capability 3. Human capacity, expertise and economic decision-making tools

Helsinki Principles 2 and 4

Mainstreaming climate action across Ministries of Finance will require substantial changes to staffing, skills and expertise, including the analytical tools used within Ministries. This section first discusses enhancing the skills and expertise of ministerial staff (Capability 3a), and second, enhancing economic decision-making tools and data-driven analysis to inform decision-making (3b).

Capability 3a. Enhancing skills and expertise

Climate change is a fast-paced and relatively new policy issue for Ministries of Finance: thus, many lack the relevant subject expertise and staffing capacity to drive the transition to net zero and enhanced resilience. There is both a need for all staff to have basic awareness and understanding of climate issues and how they affect the work of the Ministry, and for dedicated climate staff to acquire a blend of specialist and cross-cutting skills. While the exact skills required will depend on each Ministry's responsibilities and priorities, a basic understanding of the latest climate science as well as climate economics is required to increase awareness and facilitate the mainstreaming of climate into all ministerial operations.

The skills and capability challenges that most Ministries of Finance are faced with are: (i) limited awareness of climate change issues within the Ministry; (ii) a shortage of dedicated staff; (iii) cross-cutting and subject-specific skills gaps; and (iv) gaps in relevant tools and modeling approaches (Coalition of Finance Ministers for Climate Action, 2022d). The latter point is discussed under Capability 3b.

How Ministries of Finance can overcome barriers to enhancing skills and expertise

Attracting and retaining skills and expertise is challenging for many Ministries of Finance, particularly those in developing countries. Key barriers include difficulties in setting up in-house training programs, the price and availability of training courses, low staff retention, failure to institutionalize external knowledge, and difficulties in establishing sustainable partnerships with external knowledge providers.

There are several ways Ministries of Finance can expand their skillsets and fill gaps in expertise. Given the constantly changing state of knowledge related to climate science and climate solutions, a combination of approaches will be required. Options include: hiring climate specialists and consultants; providing training; engagement with knowledge and peer-to-peer learning networks, including the Coalition of Finance Ministers; engagement with academia and other research providers; seeking assistance from bilateral donors and international institutions and capacity-building programs; bilateral exchanges between Ministries from different countries; and leveraging expertise from government agencies and line ministries.

Regional knowledge and exchange platforms can be particularly valuable. The African Green Finance Coalition uses peer learning, peer review and expert advice to support Ministries of Finance and Environment, central banks and financial institutions to scale up the mobilization of green finance, for example. Ministerial staff can also benefit from a growing number of training programs offered online or in person by international institutions, universities or the Coalition of Finance Ministers, as well as programs such as the Resilience and Adaptation Mainstreaming Program (RAMP), the Green Fiscal Policy Network or the Green Climate Fund's Readiness Programme.

Fixing skill and staffing gaps and building systems that enable the regular expansion of knowledge will require sustained efforts by Ministries of Finance. Ministries of Finance should assess skills and capacity gaps to design skill upgrading plans targeting the training needs of both dedicated climate staff and other Ministry staff considering the measures listed above. The **US Treasury** is currently developing a Climate Literacy Program to increase climate change knowledge and expertise of all staff, part of a broader 'Rebuilding Program Capability' plan, one of the priority adaptation action areas outlined in its Climate Action Plan (see Capability 1), which also foresees that each bureau takes stock of current skills and develops bureau-level climate action plans. To improve the availability of training and knowledge exchange opportunities, Ministries of Finance should also consider engaging proactively with training providers to share their needs and expanding peer-to-peer learning opportunities.

Opportunities for action

Ministries of Finance should invest in developing and utilizing new skills and expertise to drive climate action through recruitment, in-house training, engagement in peer-to-peer networks, international organizations, academia and other knowledge providers, and leverage expertise from other agencies. They should start by assessing existing skills and gaps and how those can be filled. Cross-cutting skills include climate science and risk management, climate economics, sector-specific expertise, stakeholder engagement, and climate law. More specific skills include expertise on carbon and other environmental taxation, sector-specific fiscal incentives, subsidy reform, infrastructure financing, financial sector services, debt and bond instruments, and MDB/DFI policies. Those critical for the just transition include socioeconomic, regional development and social security reform.

Ministries of Finance should also consider expanding peer-to-peer learning, and creating a regional or global network of research institutions that could support their work, including that of Coalition members, and to provide the necessary evidence base for driving climate action.

Cross-cutting skills include climate science and risk management, climate economics, sector-specific expertise, stakeholder engagement, and climate law.

Capability 3b. Enhancing economic decision-making tools and data-driven analysis

To act on climate, Ministries of Finance have a fundamental need for strong analytical capability to inform high-quality decision-making. As well as internal Ministry of Finance capability, this includes the related capabilities in relevant line ministries, state-owned enterprises, investment funds, development banks and financial sector regulators.

How Ministries of Finance can overcome barriers to enhancing decision-making and analysis

A major barrier to climate action is insufficient knowledge by Ministries of Finance of the positive and negative macro and fiscal impacts of the transition, which exacerbates risk aversion in investing in the new economy. These typically include a mix of positive changes through new tax mechanisms, industries benefiting from the transition, new sources of exports, impacts on productivity, reduced subsidies, and reduced expenditure on health, and negative changes through lower tax revenues from fossil fuels, reduced consumption in select sectors, industries suffering from the transition, export losses from stranded assets, incremental investments in clean infrastructure, and the cost of workforce retraining and support measures.

Ministries of Finance will need to place an ever-greater emphasis on mainstreaming climate action within existing tools and/or developing new tools to support decision-making, supported by high quality data. This is principally about better understanding four things: (i) the impact of physical climate risk on the economy and public finances over time; (ii) the economic, social and financial costs and benefits of long-term decarbonization and resilience pathways; (iii) the economic, social and financial impacts of different policies; and (iv) the fiscal implications of the combined long-term economic, policy and financial changes.

Four main strands of decision-making tools can support Ministries of Finance in this journey: (i) macroeconomic tools that estimate economy-wide costs and benefits; (ii) climate–economy models that estimate physical climate impacts and the investments required to reach decarbonization targets; (iii) sector models that focus on sector-specific costs and benefits such as analysis of sunset versus sunrise industries; and (iv) policy and project appraisal tools that focus on the direct and indirect impacts of major policies or large-scale investment programs and projects at a single or several points in time.

The Coalition of Finance Ministers has provided a comprehensive overview of current approaches to modeling the fiscal impacts of climate action (Coalition of Finance Ministers for Climate Action, 2022b), looking at approaches taken by **Denmark**, **Canada**, **Finland**, and the **UK,** among others. For example, **Denmark's** GreenREFORM Model aims to create a one-stop-shop for assessments of the economic and fiscal impacts of climate policies and the climate impact of economic policies.

Emerging evidence suggests that Ministries of Finance should be especially cautious about using older forms of macroeconomic and climate–economy modeling tools such as Computable General Equilibrium Models (CGEs) and Integrated Assessment Models (IAMs), which tend to underestimate the risks of climate change and the opportunities of a transition to net zero, albeit some IAMs are exclusively energy system models. Many models portray the transition as a process of marginal changes to economic output rather than as a structural transformation of technologies, institutions and practices, and typically preclude the possibility that net zero innovations could improve welfare (Hepburn et al., forthcoming).

Traditional approaches to assessing climate policy impacts such as cost–benefit analysis (CBA) are increasingly viewed as being insufficient guides for future economic and fiscal strategy. Some of the world's greatest successes in low-carbon sector transitions, in countries as diverse as India, Brazil, China, Germany and the UK, were achieved using policies generally not supported by traditional analysis (such as CBA) or advice (Diaz Anadon et al., 2021; Grubb et al., 2021). These included targeted investments in clean technologies, market-shaping subsidies, public procurement, and state-backed concessional lending. At the outset, static CBA assessments considered these investments poor value in terms of dollars per tonne of avoided emissions, but over time they have proved highly effective. Alternative approaches are emerging, such as the risk–opportunity approach, that seek to tackle the status quo bias in CBA analysis.

Contrary to common current practice, often it may be more effective to mainstream climate action by revamping existing Ministry of Finance tools rather than reinventing the wheel. Uganda factored green investment into its macroeconomic model to inform new climate commitments, for instance.

When considering the development of their analytical capabilities and tools, Ministries of Finance should follow principles that include: a diversity of tools and approaches; matching the approach to Ministry of Finance capability; considering methods and tools that are transparent in their assumptions and about their pros and cons, and easy to explain to decision-makers; and considering scenario and sensitivity analysis, especially around discount rates and future technological costs and benefits. In simple terms: use many approaches, make them simple and transparent, and 'do' scenarios.

When using macroeconomic models, it is especially important to factor in the processes of transformative change and disequilibrium processes, non-linearity and uncertainty in physical and economic impacts, technological innovation, equity and justice, and the empirical validity of policy options based on historically tested data. For many developing countries, analytical approaches should include consideration of currency risk, which is salient when low-carbon projects are invested in foreign currency but with returns in domestic currency.

Ministries of Finance face a wide range of barriers to enhancing their analytical capability: while there are ways to overcome a number of these challenges, doing so is a process that is likely to be iterative and will need to adapt over time. Key aspects might include assessing the most pertinent questions to address before making major investments in new capability, gathering data, hiring and maintaining specialists, investing in partnerships, and starting off with simple models and approaches.

Ministries of Finance should consider investing in new approaches to national accounting that are helping countries redefine their priorities for economic prosperity. These tend to focus on a fundamental reappraisal of the primary benchmarks of economic performance used by Ministries of Finance by going beyond GDP to include a wider range of metrics important for human wellbeing.

Opportunities for action

Ministries of Finance should invest in the right decision-making approaches, in partnership with line ministries, to make effective choices on climate policy and investment. They should consider investing in: (i) their in-house analytical capabilities to assess climate and transition impacts; (ii) country and sector studies looking at the costs, benefits and fiscal impacts of different pathways; and (iii) providing training in dynamic systems analysis.

They should take into account the shortcomings of traditional general equilibrium and CBA approaches by capturing non-linear climate impacts and non-marginal changes and experimenting with new approaches such as risk–opportunity frameworks.

They should consider investing in new indicators of economic prosperity to avoid GDP serving as the primary compass on which to base investment and budget decisions and measure the success of policies.

Ministries of Finance should also consider how to tap into emerging developments in **data science and Artificial Intelligence (AI).**

> **Ministries of Finance should invest in the right decision-making approaches, in partnership with line ministries, to make effective choices on climate policy and investment.**

Part C. Priorities for action for Ministers and Ministries of Finance

This part of the report presents an overarching agenda to enable Ministries of Finance to make progress on mainstreaming climate action.

Read this to:

- Understand how the framework from Part B can assist in assessing country-level progress and priorities for action
- Discover principles to navigate trade-offs
- Consider 15 transformative actions across building capabilities and capacities, core policies and working with others
- Find out about the implementation support the Coalition will provide

The need for country-specific approaches

This report has outlined a wide range of opportunities for action for Ministries of Finance. All Ministries of Finance will have to prioritize and sequence the steps they take and consider the unique context in which they each operate. Some Ministries will be able to build their capabilities and drive transformational reform across the areas outlined in this report. Others may have to take a more gradual, stepwise approach, focused in a few key areas, such as core fiscal and budgeting issues, where they might have the most immediate initial impact. From that point, they can build their action further.

Ministries of Finance tend to differ from one another in several key ways. These include:[5]

- **The level of power they have in relation to other ministries.** Some Ministries of Finance are politically powerful entities with strong technical capacities and capabilities that play a significant role in the economic and financial policymaking agenda. Some are less powerful than Ministries of Economy or Planning, and sector ministries such as Energy or Transport.
- **The level of responsibility they have for economic and public finance issues.** In some countries, there is more than one ministry charged with finance issues. Nearly half of countries have separate Ministries of Finance and Economic Planning.
- **The degree of capabilities they require to take on additional climate action responsibilities.** Many Ministries of Finance lack some of the basic staff levels and skills that could be built upon or repurposed, especially in emerging markets and low-income countries.
- **Their culture of decision-making.** Ministries differ widely in their institutional and cultural characteristics**.** More 'traditional' Ministries tend to be 'segmentalist', compartmentalizing functions with weak horizontal and vertical coordination. They tend to be short-term, resistant to change, and risk-averse. Others have a more 'integrative' culture, tending to be more encouraging of cooperation and flexible business processes, more open, communicative, smaller and to take a broader policy perspective.
- **Their level of flexibility in adopting new tasks and functions.** Countries vary in the extent to which ministries have freedom to make changes in their organizational and staffing structures.
- **The structure of economies in which they operate.** This differs markedly depending, for example, on the sources of emissions and vulnerability to climate impacts. Countries that are more exposed to natural disasters will give greater attention to fiscal measures to tackle these events. Countries with highly carbon-intensive energy systems will want to give greater attention to measures to decarbonize energy and transportation systems.
- **The level of power central government has in relation to other regions.** In federally organized states, national Ministries of Finance are likely to have less budgetary autonomy.

[5] Based on Allen et al. (2015, 2016) and additional contributions by Richard Allen.

These differences mean that the scope for rapid organizational change will differ markedly across countries. The experiences and work done to date under Helsinki Principles 2 and interviews that informed this report demonstrate that first and foremost, transformational change will depend on the degree of political priority attached to climate policy and the strength of political and senior leadership, and on climate governance arrangements. To some degree this helps to determine the availability of financial resources and technical assistance to support reform. However, differences in the dimensions above also matter greatly.

Accurate identification of these characteristics is fundamental to determining appropriate organizational reform strategies. For example, where organizational segmentation is strong, the establishment of cross-cutting teams with representatives from relevant departments and units can be especially useful to help drive reform. Where there are strong skills gaps, more flexible salary structures to attract specialized or scarce skills might need to be considered. Where there is a weak track record of organizational reform, change management strategies can be developed to manage the risks associated with restructuring. This might initially lead to incremental, but still important, changes to the existing units, functions and responsibilities of the Ministry rather than changes to the whole structure.

Assessing progress and priorities

Although there is no one-size-fits-all solution, a core set of considerations can help Ministries of Finance to set priorities for strengthening their functions and enhancing their capabilities to respond to climate change. They can take a step-wise approach towards full mainstreaming, as outlined in Figure S1.

Figure S1. Mainstreaming climate action into Ministry of Finance (MoF) functions and capabilities—a vision for the future

Stage 3: Full integration
Climate change is fully integrated across all functions and capabilities. Climate action is normalized and synonymous with sound economic policy.

Stage 2: Kickstarting implementation
MoF delivers mainstreaming in priority areas reflecting national circumstances. MoF endorses proactive economic policy to support the transition and its uptake within international institutions and networks.

Stage 1: Self-assessment and strategy
MoF has understanding of nature of climate change and economic case for action (including net benefits of action and risks of inaction). MoF core functions and capabilities to drive the transition are assessed and a strategy for action is developed.

Time taken to move to net zero and resilient economies

Source: Authors' depiction. Adapted from Orozco and Jaramillo (2021)

The full-length guide contains **example questions** that Ministries of Finance can use for an initial self-assessment to determine their progress on the path toward fully mainstreaming climate action.

As part of determining priorities, Ministries of Finance will need to navigate a range of trade-offs at the macroeconomic level and at the policy level, in terms of balancing the achievement of a wide range of priority objectives and determining the best policy mechanism to deliver those objectives on the basis of effectiveness, efficiency and equity. Decision-makers can better navigate the trade-offs by following a set of principles:

1. Search for synergies before focusing on trade-offs
2. Do not let uncertainty quash ambition and consider the risks from business-as-usual
3. Revise outdated assumptions
4. Account for second- and third-order impacts
5. Standardize criteria for ex-ante impact assessments.

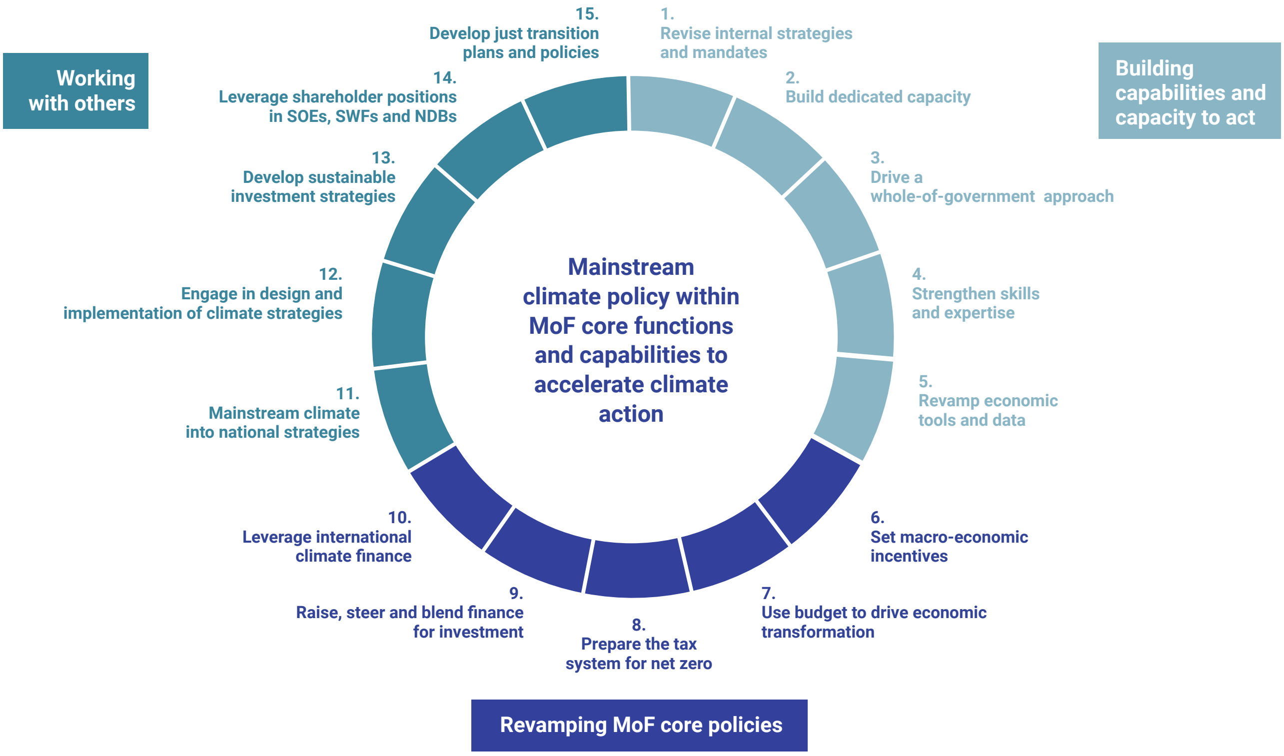
Not all climate actions can generate 'win–wins'—there are genuine trade-offs across sectors where there are strong competing uses and across time when upfront costs for low-carbon solutions may currently be higher than alternatives and day-to-day spending priorities might trump investments with longer pay-back periods. What is certain is that the solution space for generating win–wins is often far wider than is commonly accepted, and there are effective ways to navigate trade-offs.


The Coalition of Finance Ministers for Climate Action Sherpas meet in Helsinki, March 2023

Global call to action for Ministries and Ministers of Finance

As a result of the sum of the work informing this report, we have identified 15 transformative actions for Ministries of Finance to take. If embraced by Ministries around the world, they can help to ensure the implementation of the Helsinki Principles and send a strong signal that the global economy is poised to follow a low-carbon, climate-resilient path.

15 transformative actions for Ministries of Finance



Building capabilities and capacity to act

By reforming and enhancing their own capabilities, Ministries of Finance can go faster and further in driving climate action across the core functions identified above. They can do this through:

1. **Dedicated Ministry of Finance strategies and strengthened mandates for climate action.** Organization-wide plans can help Ministries of Finances set concrete objectives and priorities and marshal internal resources to play a more active role in driving climate action internally and across government. Explicit mandates for driving climate action could come from legislation, the Government's overall program, or organizational strategy development processes.
2. **Building dedicated capacity for climate action.** This could include defining clear senior-level responsibilities for driving climate action, investing in new collaboration processes, and appointing designated staff as climate focal points. Where resources permit, dedicated climate change units could be established, combining redeployment of existing staff and recruitment of new experts.
3. **Active engagement in inter-agency and stakeholder coordination efforts.** Ministries of Finance are well positioned to drive a whole-of-government-and-economy approach to climate policy. At a minimum, they should identify the areas requiring collaboration and participation of the Minister and Ministry of Finance in existing inter-ministerial coordination mechanisms and provide dedicated resources accordingly. They should also help to develop strong relationships and multi-stakeholder platforms with the private sector and civil society.

4. **Investing in skills and expertise.** All staff should have awareness and understanding of climate issues, while specialist staff will need skills spanning climate economics, risk management, green fiscal policy and green finance, plus sectoral expertise. This can be achieved through in-house training, recruitment, peer-to-peer networks, engaging with academia and other knowledge providers, and leveraging expertise from other agencies. Ministries of Finance can start by assessing climate-related skill gaps and developing training and hiring plans.
5. **Revamping economic tools, data and decision-making approaches.** New tools and data are needed to better assess the costs, benefits and fiscal impacts of zero-carbon, climate-resilient economic development pathways and investments. Overcoming the shortcomings of traditional general equilibrium and cost–benefit analysis using a diversity of approaches that capture non-linear climate impacts, non-marginal changes in the economy, and use scenario analysis is especially important. Utilizing cutting-edge data science and exploring new indicators of economic prosperity should be considered.

Core policies

Ministries of Finance should focus on the policy areas in which they can have the most significant immediate impact based on their primary responsibilities. This should include:

6. **Introducing fiscal policies to transform macroeconomic incentives for climate action.** Ambitious carbon pricing schemes and subsidy reforms should be introduced, supplemented by other fiscal incentives and regulatory reforms to transform the key economic systems required for the zero-carbon, climate-resilient transition. Ministries of Finance should contribute to ensuring coherent policy packages that capitalize on the strong interactions between pricing and non-pricing instruments while avoiding contradictions.
7. **Using the budget and public financial management to drive transformation in all sectors of the economy.** By making it clear in the budget and medium-term expenditure framework that climate is a national priority, this is perhaps the most critical entry point for driving climate action across all government departments and reducing the risks and cost of capital for the private sector. This should build on existing public financial management processes so that climate action is mainstreamed throughout the entire budget cycle and that detailed line ministry budgets fully reflect government climate priorities and include aligning public investment management and procurement practices with climate objectives.
8. **Redesigning the tax system for net zero and climate resilience.** Ministries of Finance could undertake a detailed review of the entire tax system as the foundation for reform. This might include considering new forms of environmental taxation, motoring taxes, road pricing, property and land taxation and reforming general taxation. Ministries of Finance should also be able to comprehend the impacts that climate-related risks might have on the economy and public finances, including through identifying and planning for known and unknown contingent liabilities.
9. **Raising, steering and blending finance for investment at unprecedented speed and scale.** Ministries of Finance should consider domestic revenue mobilization to underpin national investment in the transition through broadening the tax base, the responsible use of green and other thematic bonds for investment, and enhancing sub-sovereign finance. This should be complemented by the development of comprehensive sustainable finance roadmaps that include measures for greening the entire financial system to make finance flows align with the Paris Agreement and Kunming-Montreal Global Biodiversity Framework, the use of disclosure mechanisms and transition plans, the provision of disaster risk financing and insurance for all, and use of blended finance and country platforms to help aggregate investment pools.
10. **Leveraging international climate finance.** In relevant countries, Ministries of Finance should work with Foreign Affairs Ministries and development agencies to develop dedicated climate finance strategies to attract international climate finance. All Ministries of Finance should call for enhanced support for climate action by the regional and multilateral development banks through building coalitions for increasing finance and reducing the cost of capital. Shareholders and other countries should encourage an increase in international climate finance, especially concessional finance and finance for adaptation.

Working with others

These measures should be complemented by building strong partnerships with other government agencies and stakeholders across a suite of broader policy areas. Priorities for proactive Ministry of Finance leadership and engagement include:

11. **Mainstreaming climate action into national growth and development strategies.** It is critical that climate action and sustainable economic development are considered together. Ministries of Finance should work with relevant line ministries to help integrate climate action into national development plans and sector strategies related to energy, transportation, cities, land use, industry, and water. This should include considering the greater use of 21st century industry and innovation strategies to manage and invest in the transition to net zero.
12. **Active engagement in national climate strategies.** This should include proactive leadership by Ministries of Finance in the development and implementation of Nationally Determined Contributions, Long-Term Strategies and National Adaptation Plans and should support other agencies to develop fully costed strategies as the basis for attracting public and private investment.
13. **Developing sustainable, inclusive and resilient investment strategies.** Ministries of Finance can work with other agencies and private sector stakeholders to assess economy-wide and sector-specific investment needs, identify steps for overcoming impediments to investment, determine potential financing splits, and build mechanisms for translating investment planning decisions into concrete programs and pipelines of projects, including through the budget and public capital investment planning.
14. **Driving the green transformation of state-owned enterprises, national development banks, and sovereign wealth funds in cooperation with central banks.** Ministries of Finance can use their supervisory or shareholder positions to green state-owned enterprises, national development banks, and sovereign wealth funds. They should work with central bank governors to refresh their remits on monetary policy and financial stability to drive climate action and explore opportunities for fiscal and monetary policy coordination, while avoiding encroaching on central bank independence.
15. **Developing just transition plans and policies.** Ministries of Finance can work with other agencies to develop just transition plans for all key sectors of the economy, ensure climate policies consider potential positive and negative social impacts and that all citizens are included in decision-making and benefit from the transition. They should give particular attention to the creation of green jobs, reskilling of workers, and regeneration of areas phasing out fossil fuel production.

If embraced by Ministries of Finance around the world, these 15 actions can help to ensure the implementation of the Helsinki Principles and send a strong signal that the global economy is poised to follow a low-carbon, climate-resilient path.

Coalition of Finance Ministers for Climate Action implementation plan

The Coalition of Finance Ministers is committed to supporting its members to implement the actions described in this report and ways it might do so include:

1. A program of strategic engagement among its members and beyond to enhance *awareness and recognition* by Ministers of Finance, other relevant Ministries, and more broadly about the important role they have to play in driving climate action and the concrete actions needed to mainstream climate within their core functions and capabilities, efficiently and effectively.

2. Enhanced *training and technical assistance programs* for Ministries of Finance, starting with the programs offered or being designed by the Coalition's Institutional Partners, including the World Bank, IMF, World Resources Institute, NDC Partnership, UN Family, development partners and academia.

3. Developing *knowledge and research partnerships* of relevant actors to ensure the accessibility of high-quality analysis and research to Ministries of Finance, taking inspiration and benefiting from existing networks and practices.

4. Deepening *awareness and dialogue on implementation of the guide* using regional workshops or country 'roadshows' targeted at political leaders, Finance Ministers, senior management teams and staff, and relevant partners.

5. Organizing *global or regional debates* with stakeholders in areas of contestation to enhance global consensus around the important role of Ministries of Finance in driving climate action.

6. Receiving *ministerial feedback and sharing of experiences* on how to make progress in strengthening the role of Ministries of Finance and their engagement in global climate processes using the late 2023/early 2024 Ministerial Meetings.

7. Supporting *engagement of Ministries of Finance in national and global climate processes* in the run-up to COP28 on climate and COP16 on biodiversity.

The important point is for Ministries of Finance to develop strategies for mainstreaming climate action within their core operations, recognizing that short-term and long-term efforts are needed. Developing such plans will benefit from close collaboration with other Ministries, relevant agencies and partners. It is important to step up efforts now on priority actions.

> **There is no time to lose; the impacts of climate change are escalating and acting sooner will drive significant benefits.**

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