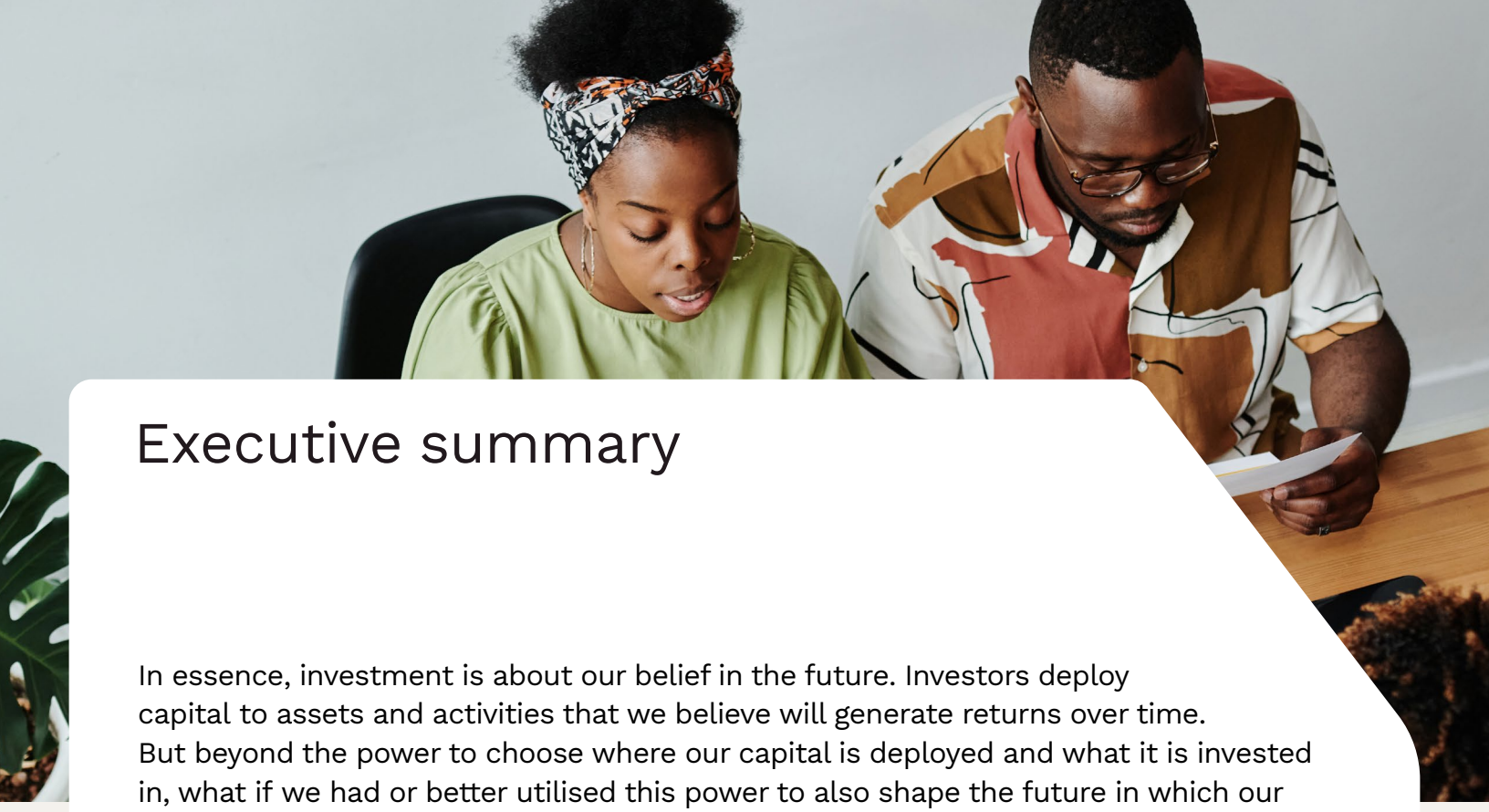
Envisioning *Fair* Futures:

Gender equality, climate action and equitable finance

September 2023



Executive summary

In essence, investment is about our belief in the future. Investors deploy capital to assets and activities that we believe will generate returns over time. But beyond the power to choose where our capital is deployed and what it is invested in, what if we had or better utilised this power to also shape the future in which our investments happen? This would mean adapting as we go to new conditions, so that the risks to today's investments are lowered and their value is sustained.

This handbook sketches out **four hypothetical but plausible (or even in-motion) futures, grounded in gender and climate context, and political factors**, to help investors explore how they might respond to future conditions and understand the power, potential and opportunity of their actions.

These 2043 scenarios range from a much warmer, more unequal and unstable world to a creative, inclusive world that has developed new models for business, investment and how societies function.

Our objective is *not to predict exactly how the world will look in two decades* – rather, it is to shed light on the present and to stretch our imaginations about what must change to get from here to there, at pace and at scale.

What shifts in social dynamics, policies, technologies and the physical world might investors anticipate and better plan for? Why and how might a more gender-equal, climate-smart future shore up the value of investments and unlock new opportunities? And what can investors do today to access such a future?

The handbook is accompanied by **guides for four types of investors or providers**: development finance institutions, family offices and foundations, fund managers, and advisory firms.

Image by Darlene Alderson from Pexels

How to use these futures

These futures are **meant to spark investor imagination**, to facilitate the **visualisation of how a future scenario might impact current and future investment context**, and encourage **reflection on the co-dependence between gender and climate finance**; the role of gender- and climate-smart investment in shaping the future we want; and how investment portfolios and strategies might shift to bring that future to life.

Some general questions to ask yourself about each future include:

How would our current investment strategy fare in this particular version of the future?

Does our existing investment strategy and approach consider some of these risk factors? If so, how well?

How might our investment process and analysis need to adapt to these shifting dynamics?

What are the biggest risks for our portfolio in this future? What are the biggest opportunities?

How do these scenarios relate to other scenario and portfolio risk assessment work that is ongoing?

What would our top three actions be today, individually or with other investors, to minimise the risks and maximise the opportunities from this future?

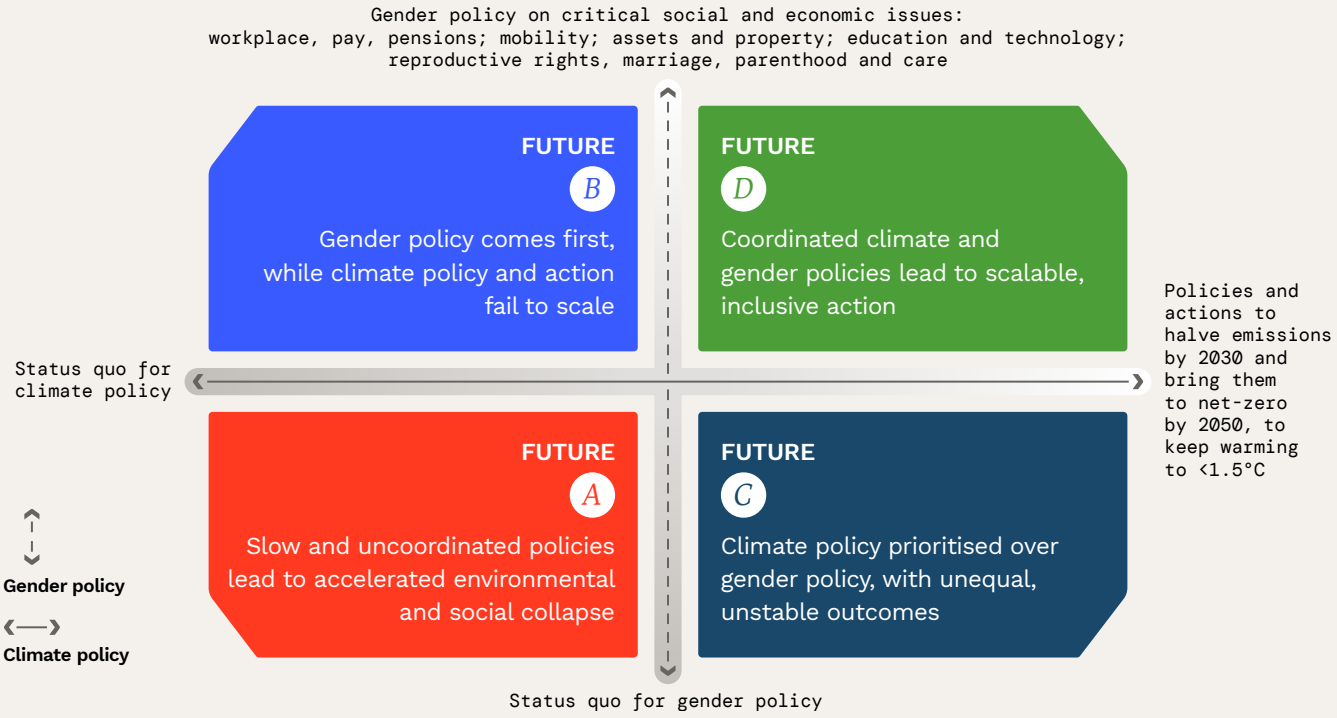
What key ingredients do we most need to accomplish our objectives in this future?

Common links

Regardless of the gender and climate policies in play in each scenario, or the extent of change wrought by these policies, there are features common to all four futures. For instance, some physical impacts of climate change are locked-in and climate adaptation will inevitably be needed. And to be able to measure impacts and make decisions in the run-up to any future, investors will need data, standards, indicators, and new definitions of value, particularly gender-disaggregated data and the value derived from equality and inclusion. Moreover, there are actions and trends ongoing in each of the scenarios and strategies being executed by each actor type that form part of their baseline engagement.

Scenarios

This framework can be used as the basis for discussions with investment teams, boards, LPs, asset owners, clients and other stakeholders.



In **FUTURE A**, **Slow and uncoordinated policies lead to accelerated environmental and social collapse**, and the physical effects of climate change hit hard. The knock-on socioeconomic effects such as supply chain disruptions or education and skills shortages are heightened by a lack of concerted or any meaningful policy on gender equality. In the name of stability, governments roll back or stall on expanding social rights and benefits.

In **FUTURE B**, **Gender policy comes first, while climate policy and action fail to scale**. The global economy, and to some extent climate progress, benefit from women's empowerment, innovation, entrepreneurship, and leadership. Prosperity grows on the back of ongoing fossil fuel consumption. The world's progress, however, is threatened by the continued physical impacts of climate change.

FUTURE C, **Climate policy prioritised over gender policy, with unequal, unstable outcomes**, depicts a future in which climate progress has been rapid and widespread – but uneven and unstable. Climate adaptation and resilience, as well as other environmental concerns such as biodiversity loss, are not fully addressed. Economic inequality remains high within and between countries, and girls and women continue to lack equal access to education, finance, property rights, and health, dampening GDP growth and destabilising societies and economies.

In **FUTURE D**, **Coordinated climate and gender policies lead to scalable, inclusive action**. Many new opportunities and innovations arise from the combination of climate action and gender equality, such as water management tools driven by the intersection of technology and Indigenous knowledge. Several societies and economies have engaged in a serious conversation about degrowth. The slowdown in population growth is framed as an opportunity to think creatively about the future of society rather than a crisis.

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About us

2X Global, emerging from the merger of GenderSmart and the 2X Collaborative, is a global membership and field-building organisation focused on unlocking gender-smart capital at scale. By working together with the full spectrum of investors, capital providers, mobilisers, and influencers, we are shaping the market on a whole new level, ultimately transforming systems of finance through the gender-smart deployment of capital across asset classes and markets.

2X GLOBAL
Unlocking gender-smart capital at scale.

Foreword

Climate change is one of the most urgent crises of our time. Rightly, investment in climate solutions has skyrocketed in recent years, nearly doubling in the last decade.[1] But our ability to effectively address climate change hangs in the balance.

As 2X Global, we know that the most important levers and accelerators of climate action are gender-related: women's leadership, identities, and experiences produce a richness of perspectives and impacts that lead to more resilient, sustained climate outcomes. But while investors today may have a laser focus on curbing greenhouse gas emissions and addressing climate impacts, they are missing the opportunities – for climate and for financial returns – that come from integrating a climate and gender lens.

Through our work at 2X Global, we hope to equip and engage the full spectrum of investors, intermediaries, and innovators to transform systems of finance through the deployment of gender-smart capital across asset classes and markets, at pace and at scale. To do this, we need to build the field and reach beyond the choir.

To date, our efforts have included an overview report of the opportunities from integrating gender and climate in investment, case studies for doing so in a range of markets, and producing the Gender and Climate Finance Toolkit.

How else might we support investors' understanding of the risks and opportunities of gender and climate in future? By painting the future and working backwards. Already, climate science relies on scenario modelling to help envision a range of future physical states[2] – and their social and economic implications[3] – in the business-as-usual condition and others. International reporting standards take these a step further: as of July 2023, the International Sustainability Standards Board has released global sustainability disclosure standards that call on companies to use scenario analysis in their climate disclosures.[4]

In this handbook, we sketch out and explore four futures for gender and climate, with and without fundamental shifts in gender or climate policy, and illustrate what the risks and opportunities of each future could look like. Our objective is not to predict the future; it is to shed light on the present and what we as investors need to change to get from here to there, at pace and at scale.

> We hope the stories we tell about these futures offer *inspiration and optimism* that things can be different – for *climate change*, for *gender equality*, and for the underlying societal values and systems that underpin progress.

And from other domains, we know that pace and scale are possible. In the past two decades, the world has transformed on so many levels. Consider the rapid rise of electric vehicles, or the global penetration of mobile phones and smartphones. Consider the ways in which many generations and societies are redefining gender itself, with concepts that were the province of academia then, entering the mainstream now. What kind of systems-level change might be possible in the next twenty years?

We hope the stories we tell about these futures offer inspiration and optimism that things can be different – for climate change, for gender equality, and for the underlying societal values and systems that underpin progress.

Today's global challenges are increasingly characterised as 'polycrisis': a cluster of shocks such as climate change and climate disasters, inflation, and conflict, whose effects compound each other.

The interlocking nature of the polycrisis means that we need to address all manner of inequalities, including gender and other social dimensions, to correct our course, and seek out new sources of opportunity and progress. In particular, that means paying attention to the gendered nature of risks, recovery and resilience, and to the gendered dimensions of innovation, finance, policy, or opportunities for impact.

But exploring and assessing how gender and climate lenses intersect and interact, in the context of ongoing, linked crises, requires different tools and methodologies.

Futures thinking is one such tool. People have long sought to imagine and anticipate what the future could look like, so they can build a better one. The modern discipline of scenario planning is roughly three-quarters of a century old, with its roots in military strategy, public policymaking and corporate planning.

Today, corporates, investors and financial institutions are increasingly using futures thinking and scenarios to explore risks, opportunities and impacts and deepen their understanding of complex issues and interactions. Scenario methods are an integral part of sustainability disclosure as well, now that the International Sustainability Standards Board requires companies to use scenario analysis to report on their climate resilience, risks and opportunities, and in other cases also for transition planning.

Likewise, we have created this report and its accompanying guides to help investors envision, prepare for and build a better, more equitable future.

We explore four possible futures at the intersection of gender and climate, with and without major shifts in gender or climate policy. Aimed at a wide range of investors, from development finance institutions to family offices, these futures focus on storytelling rather than technical models, while drawing from the Shared Socioeconomic Pathways and other scenarios such as the NGFS (Network for Greening the Financial System).

We hope these futures underscore how mutually reinforcing gender equality and climate action are core to our action pathways of building a thriving planet, society and economy. When we can better imagine how these issues are connected, we can better identify opportunities to work together to achieve a more desirable world. When investors integrate this dual lens into their strategies and approach, we can better future-proof our portfolios and uncover greater opportunities for systemic change.

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Director of Strategy, 2X Global

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Founder and CEO, Kite Insights

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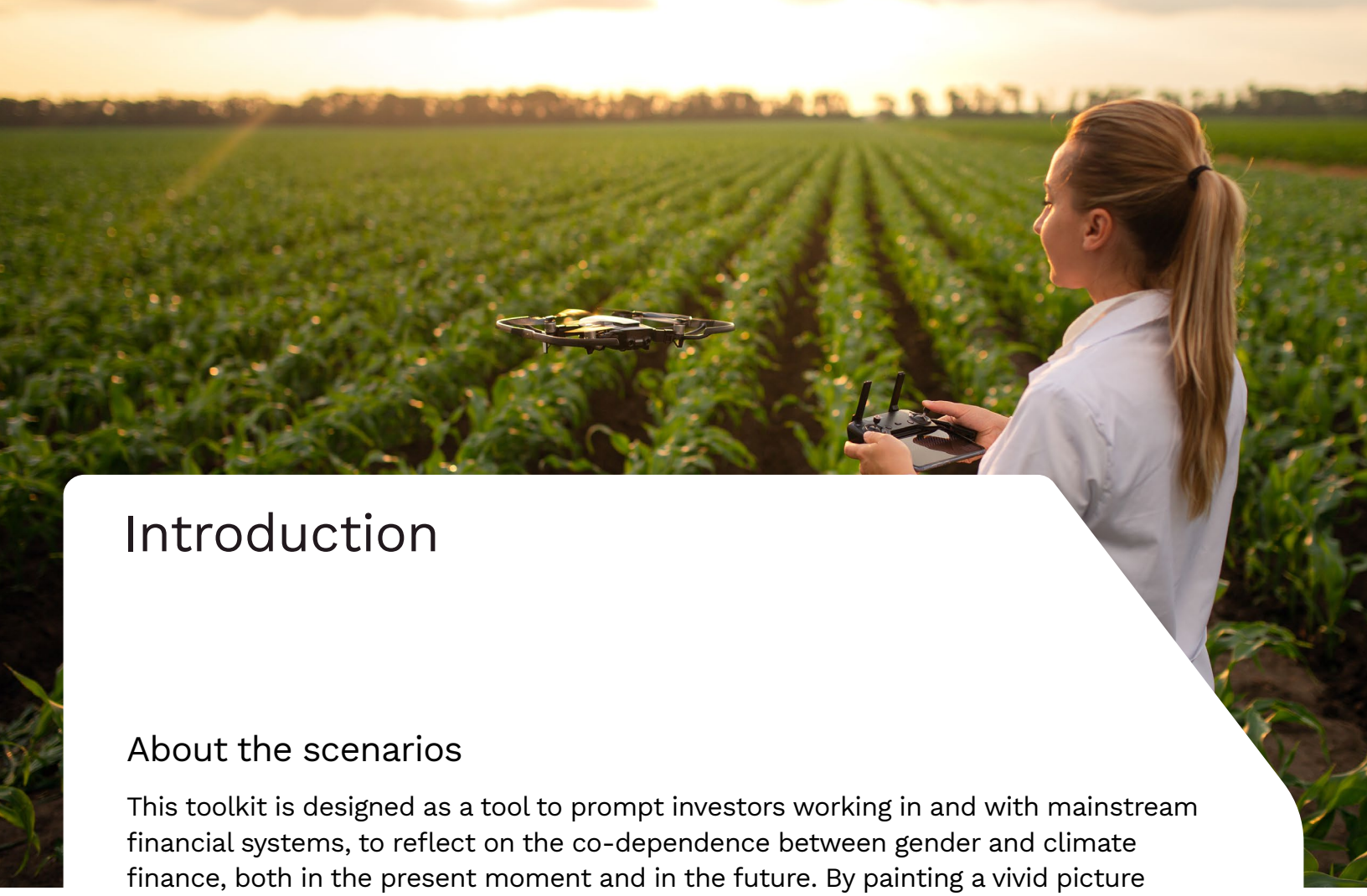


Introduction

About the scenarios

This toolkit is designed as a tool to prompt investors working in and with mainstream financial systems, to reflect on the co-dependence between gender and climate finance, both in the present moment and in the future. By painting a vivid picture of possible futures, we hope to encourage critical examination of investment portfolios and strategies, and provide insights into how these strategies might need to shift.

Each of the future scenarios describes a possible world at the intersection of climate and gender policy two decades from today. Why policy? Policy is measurable; it both reflects underlying social dynamics and values, and sends an important signal to people and economies about what we wish to value. It has direct and indirect implications for what is invested in and how. In some cases, it creates incentives or disincentives for investment. Overall, it impacts the context in which investment occurs.

These future scenarios (or 'futures') are distinct from each other, but not necessarily comprehensive or exclusive of other kinds of value changes. For instance, consider a world in which our definition of and thinking about gender has shifted dramatically away from the binary.

These futures were distilled, over the course of a year and via various workshops and convenings, from the collective insights of the 2X Global Climate and Gender Finance Community of Practice and other 2X community members and experts, as well as by bringing in experts in scenario building and use. We sought a diverse range of interview and workshop participants in terms of gender, age, race, industry and sector experience, and geography, though women and Global North investors were slightly overrepresented.

Other futures

These futures were developed from qualitative input and insights from desk research, workshops and convenings with a wide range of participants. They draw from, overlay a gender lens on, and should be considered in dialogue with other scenarios such as the Shared Socioeconomic Pathways that include quantitative modelling components. Key scenario initiatives include:

The Shared Socioeconomic Pathways[5]

These model how socioeconomic factors such as population, urbanisation and GDP growth interact with different climate mitigation pathways. They are used in the IPCC's 6th Assessment Report.

Network for Greening the Financial System: Climate Scenarios[6]

Commissioned by the Network of Central Banks and Supervisors for Greening the Financial System, these hypothetical scenarios depict how physical and transition risks evolve in different futures where policies are timely, delayed or divergent, or simply insufficient to halt significant global warming.

Forum for the Future's Future of Sustainability 2021 (published 2022)[7]

Qualitative insights from subject matter experts on driving sustainability at pace and at scale for a just and regenerative future.

We hope the futures outlined here encourage and enable investors of all stripes to explore the catalytic interplay of policies and finance in shaping tomorrow, to understand the implications and opportunities of each future for the investment environment, and to envision new opportunities for collective action, as investors, to scope and shape a better reality.

In each section, you'll find a future that aims to challenge your current thinking and stretch your imagination, as well as exercises and thought-provoking questions to test your investment choices and strategies against each future.

A FEW CAVEATS AND NOTES

- **Four…or more:** Cosmologists suggest there are an infinite number of universes created as the cosmos expands. These futures we present are just four of the most plausible alternative worlds.
- **These futures are not predictions – or prescriptions.** There is no single 'ideal' future, and some characteristics of each may be more- or less-desirable to different readers in different operating contexts. Instead, we can trace a path backwards to the present to understand how our choices and actions today can influence the future. Some elements described in one future may also occur in others.
- **Why two decades?** Twenty years is well beyond the long-term time horizon of the average investor. But it gives us mental room for imagination so we're not tripped up on the one-year return or five-year return on an investment. Plus, a lot can change in two decades: the global growth of smartphones, the rise of cryptocurrency, the expansion of the legal right to same-sex marriage in the modern world. Two decades gets us a transformed world, in many important ways.
- **And caveat: the 20 year timeframe.** The United Nations Net Zero Coalition, including the net zero asset owner alliance, set 2030 and 2050 as key milestones for achieving net-zero targets compatible with a realistic achievement of the Paris Agreement goals. This handbook is meant to accompany that important context, and support the above climate finance forecasting and underlying analysis.

How to use these futures

These future scenarios are tools to provoke reflection about what investors can do today, based on plausible but provocative views (not predictions) of the future. We believe the overall scenarios are all possible, and that we are at a turning point where inaction or strong, coordinated action are possible on both gender and climate.

Alongside each future, there are methods and tools to encourage reflection. These include sketches of how various types of investors might fare in 2043, as well as questions exploring portfolio risks and opportunities to achieve, avert, survive or thrive in the future.

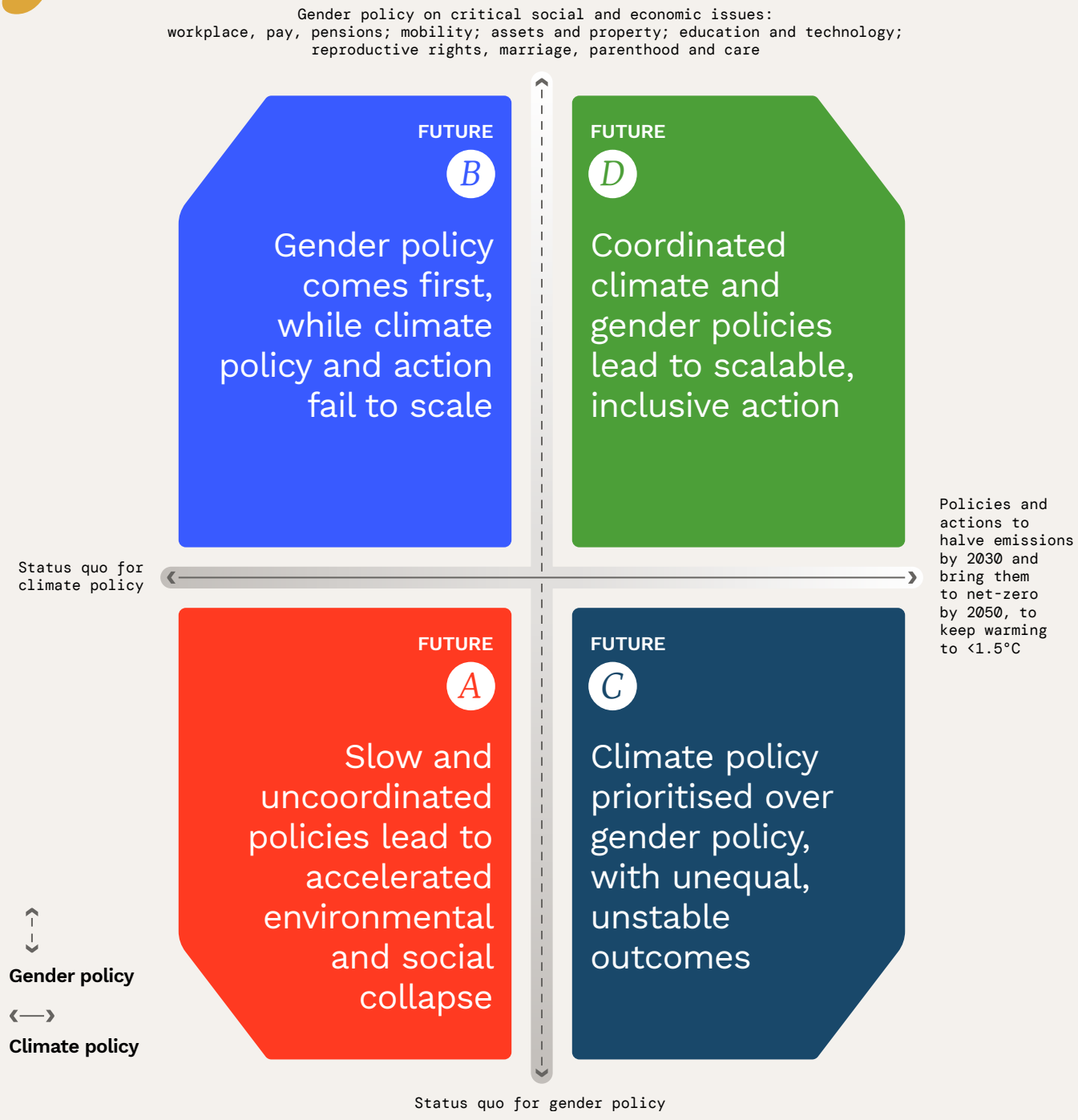
The **vignettes** are glimpses into each future, and the imagination they invoke allows us to think deeply about each scenario. The questions provided will guide you and your organisation through a thought experiment about what you would do if you arrived in these possible futures. They are not intended to be a quantitative assessment of a current portfolio, but rather to orient investment strategies to mid- and long-term goals for gender and climate. Of course, you can also think about whether the scenario or vignette is particularly likely – and what you might do now to make it more or less likely.

We also include four **guides**, each for a specific group in the investor community: development finance institutions and multilateral development banks, family offices and foundations, fund managers, and intermediaries. These speak to specific concerns and interests that each group may have, and present more views of the future through different groups' lenses.

These tools are not only about acting and thriving as an individual investor, but also the power of collaboration and collective action to shift policies and even underlying social dynamics towards more long-term thinking. We invite readers to keep in mind the power of acting together as they explore these futures.

We anticipate that these futures will be used by a range of investors in and beyond the specialist gender lens investment or climate investment realms, and who have a wide range of financial and impact objectives. Investors might use them as the **basis for internal and external discussions** with teams, board, LPs, asset owners and other stakeholders about **challenges and opportunities in gender and climate investment for a more just and sustainable tomorrow**.

The *futures*


Gender policy on critical social and economic issues:
workplace, pay, pensions; mobility; assets and property; education and technology;
reproductive rights, marriage, parenthood and care
FUTURE
B
Gender policy comes first, while climate policy and action fail to scale
FUTURE
D
Coordinated climate and gender policies lead to scalable, inclusive action
FUTURE
A
Slow and uncoordinated policies lead to accelerated environmental and social collapse
FUTURE
C
Climate policy prioritised over gender policy, with unequal, unstable outcomes
Status quo for climate policy
Policies and actions to halve emissions by 2030 and bring them to net-zero by 2050, to keep warming to <1.5°C
Gender policy
Climate policy
Status quo for gender policy

A

Slow and uncoordinated policies lead to accelerated environmental and social collapse

Slow and uncoordinated climate policy, little enactment of gender policy and slow progress on gender equality

Vignettes

A glimpse into the summer of 2043

JUNE

Droughts in India's Rajasthan state affect crops such as groundnuts, millet, and beans, while dairy production falls. Due to recurrent such droughts, women farmers and their households have been chronically food insecure and malnourished for years.

JULY

Flooding from a typhoon damages eighty-three factories in Ho Chi Minh City, Vietnam. This disrupts supply chains for semiconductors, vehicle parts, and textiles, causing a global backup of everything from new cars to athletic clothes. Some factories close for repair; for others, it is the final straw after a decade of repeated flooding. Many decide to move inland and to higher elevations. The women who make up the bulk of labour in these factories are unable to earn a living for months.

AUGUST

A summer heat wave scorches Moscow, Russia, causing an uptick in heat-related deaths and maternal health issues such as preterm births. There is an electricity bottleneck: while demand for air-conditioning rises, local nuclear power plants are forced to shut down some production as the rivers used for cooling them have run dry. For some years, the Kremlin considered moving the capital to the bustling port city of St Petersburg, about 700 km northeast, but Neva River flood risks have put a damper on that plan for now.

Key features of this future

- Equity and progress take a backseat in a world of existential threats with high geopolitical and economic friction.
- Climate action is patchy, uncoordinated and insufficient. Fossil fuels provide the bulk of the world's energy.
- Populist, conservative governments roll back or stall on expanding social rights and benefits, in the name of stability.
- Women around the world face barriers to accessing education, skills, property rights, and finance, among other factors that would enable their economic participation and enhance their decision-making power.
- Due to a lack of coordinated climate mitigation and adaptation efforts, the impacts of climate change intensify. These include extreme weather events and energy, food and resource insecurity.
- Women and girls, already at a disadvantage, are disproportionately affected by energy, food and resource insecurity, and the health impacts of climate change. They may be less able to migrate or move than men in response to environmental degradation, or as environmental migrants they may be more susceptible to gender-based violence and trafficking.
- Climate impacts and social inequality interact with and exacerbate each other.

For an in-depth description of what this future entails, see Annex 3A.

Image by Denis Onyodi / IFRC/DRK

The risks of climate inaction and gender inequality

With no or fragmented climate action, the key climate risks in the next two decades include:

- Global average temperatures rise by 1.5°C before 2030
- Increased intensity and frequency of extreme temperatures (cold as well as heat), with deadly consequences in many regions
- Increased intensity, frequency, and amount of heavy rainfall and other extreme weather events
- Increased frequency and duration of severe droughts, leading to scarcity of clean water and other health impacts
- Increased disruption to agriculture, leading to food price spikes and shortages
- Increased incidence of some types of diseases, such as zoonotic disease and respiratory disease
- Sea level rise of at least 0.2 to 0.4 metres as soon as 2040 due to thermal expansion and glaciers and ice sheets melting, which threatens small island states, coastal cities, and habitats
- Increase in ocean temperatures and marine heatwaves
- Disruption of ecosystems, such as coral reefs and wetlands

In addition, climate change causes or exacerbates social impacts, such as:

- Heightened inequality and poverty: climate change could push 130 million people into poverty over the next decade[8]
- Displacement of people: up to 200 million people may move within their own countries alone by 2050 as a result of climate change[9]
- Violent conflict, fuelled by water and food insecurity and other factors[10]
- Mental health challenges
- Instability of economies leading to widespread political unrest

Likewise, the impact of gender inequality and a lack of gender policy carries the following risks:

- Lost GDP growth of roughly 11-28% (by 2025 and likely more beyond)[11]
- A loss of $160 trillion in lifetime earnings globally, based on today's population, if women's pay and workforce participation continue to lag behind men's; heightened risk of poverty[12]
- Increased exposure to gender-based violence
- Unequal gendered expectations and policies mean men may not receive access to parental leave, caregiving leave or other benefits
- For companies, a lack of gender equality and diversity lead to:
  - Loss of talent or potential talent
  - Missed opportunities for enhanced innovation and better decision-making
  - Reputational risk
  - Risks of poorer governance at the board and management level
  - Decreased resilience to economic downturns and shocks

Image by Quarrie Photography / Jeff Walsh / Cass Hodge

Food for thought: Questions

In **Future A, Slow and uncoordinated policies lead to accelerated environmental and social collapse**, survivability and resilience are paramount. Reading this, you may wish to **avert this future, or anticipate and prepare for some elements of this future**. What is the role of investment in helping to shift today's policies and even underlying social dynamics towards more long-term thinking to create resilience, and what kinds of action can you take to contribute?

So, what steps might be taken **today** to mitigate risks and maximise positive impacts? Here are some questions to ask yourself while exploring this scenario:

What are the potential climate and gender risks and opportunities in this future?

- What are the specific investment risks?
- How do these vary across our target geographies, sectors, and/or asset classes?

How will our current business or investment strategy fare in this future?

- Would we have enough liquidity to respond?
- To what extent are these risks already built into our current strategy?

What needs to happen to avert this scenario, or to best mitigate its risks?

- What would our top three actions be – whether strategic, operational, or investment?
- What can be done on a local, industry, sectoral, or national scale?
- How can investors collectively encourage policy change to access the most desirable aspects of this future? What collective action might be needed to uncover new opportunities for impact?

What key ingredients – such as regulatory certainty, more granular data, or more direct contact with on-the-ground, local organisations – do we most need to accomplish our objectives in this scenario?

Which stakeholders do we need to start collaborating with today for meaningful action at scale?

As you explore these questions, please remember that this future is **not a prediction** – you are not trying to assess its degree of realism. Rather, it is meant to help you analyse your own investment strategy.

These questions might be used as the basis for discussions with investment teams, the board, LPs, clients, asset owners and other stakeholders, about challenges and opportunities in gender and climate investment for a just and sustainable future. They are meant to guide a strategic discussion, and support a broader dialogue on imagination, possibility and breadth.

B

Gender policy comes first, while climate policy and action fail to scale

Slow and uncoordinated climate policy, extensive enactment of gender policy and rapid progress on gender equality

Vignettes

Gender equality and the diversified energy industry in 2043

In the 2030s, energy companies were among the first to leap on the gender equality bandwagon. They had previously struggled to attract and retain diverse talent, but were able to benefit from government policies to train and upskill women.

Most energy companies observed that the industry would enjoy increased global demand for energy, but that companies would also need to boost their resilience to shocks like climate change. It was women in leadership roles who made the decision, even in the absence of government policy or other financial incentives, to diversify energy company portfolios and invest a small amount in renewables, such as hydrogen and novel carbon-removal solutions like carbon capture, storage, and usage.

Today, energy companies are among the most gender-balanced in the world, with women making up half of management, half of research and development teams coming up with new carbon capture solutions, and half the workers on new oil and gas exploration and offshore wind installations.

Key features of this future

- People around the world lose trust in humanity's ability to mitigate or adapt to climate change. To stay competitive, countries integrated in the global economy keep up business-as-usual use of fossil fuels.
- People focus on issues that feel most personal to them and where shifts are occurring fastest – such as gender – and recognise that gender equality is a source of resilience for ageing economies' labour supply.
- Gender equality advances around the world, conferring equal rights for women and access to finance, education, property, and health.
- Global prosperity grows on the back of fossil fuel consumption, but it is not evenly distributed.
- Without policies for climate mitigation and adaptation, the physical and environmental impacts of climate change worsen.
- Economic inequality remains high, so the impacts of climate change disproportionately affect the poorest women and other vulnerable groups. Despite greater gender equality across the board, progress for women is uneven.

For an in-depth description of what this future entails, see Annex 3B.

Image by Hamish John Appleby / IWMI

Vignettes

March 8, 2043

Today, International Women's Day, 2043, marks the tenth year since the global gender gap peaked and began to close.

- With a wide range of reproductive choices and maternal care available, child and maternal mortality rates have dropped in most emerging economies for the tenth straight year.
- In middle-income economies like Brazil, Mexico and Indonesia, girls are receiving more years of education in total, and women's labour force participation has grown.
- It's been ten years since the European Union imposed a 10% quota for non-binary and gender-queer members of boards, and membership of Us=Them, the international association of non-binary CEOs and board leaders, has skyrocketed.
- Thanks to nationally mandated access to parental benefits for all, and with the expansion of men's national conscription programmes to include caregiving work, such as eldercare and childcare, birth rates have risen in South Korea even as women stay in the workforce longer.

But the progress, once rapid, has begun to taper off. The more exposed a country is to climate impacts, the greater its economic inequality, the smaller its gender-gap improvement, and the higher its risk of backsliding. Will the world's gender gaps ever be fully closed? And with a global temperature rise of as much as 5°C looming, are we at risk of greater disruptions in the next half-century?

Food for thought: Questions

Investment plays a role in helping to shift policies and underlying social dynamics towards more long-term, creative, and innovative thinking, and investors can harness the might of finance to nudge societies and economies towards a just, sustainable future rich in opportunities.

In **Future B, Gender policy comes first, while climate policy and action fail to scale**, survivability and resilience are essential. What is the role of investment in helping to shift today's policies and even underlying social dynamics towards more long-term thinking, and what kinds of action can you take to contribute? What steps might be taken **today** to mitigate risks and maximise positive impacts? Here are some questions to ask yourself while exploring this scenario:

What are the potential climate and gender risks and opportunities in this future?

- What are the specific investment risks?
- How do these vary across our target geographies, sectors, and/or asset classes?

How will our current business or investment strategy fare in this future?

- Would we have enough liquidity to respond?
- To what extent are these risks already built into our current strategy?

What needs to happen to avert this scenario, or to best mitigate its risks?

- What would our top three actions be – whether strategic, operational, or investment?
- What can be done on a local, industry, sectoral, or national scale?
- How can investors collectively encourage policy change to access the most desirable aspects of this future? What collective action might be needed to uncover new opportunities for impact?

What key ingredients – such as regulatory certainty, more granular data, or more direct contact with on-the-ground, local organisations – do we most need to accomplish our objectives in this scenario?

Which stakeholders do we need to start collaborating with today for meaningful action at scale?

These questions might be used as the basis for discussions with investment teams, the board, LPs, clients, asset owners and other stakeholders, about challenges and opportunities in gender and climate investment for a just and sustainable future.

C

Climate policy prioritised over gender policy, with unequal, unstable outcomes

Rapid, coordinated and extensive climate policy, little enactment of gender policy and slow progress on gender equality

Key features of this future

- Strong and coordinated policies were enacted early enough to mitigate climate change, and climate technologies flourish.
- Early investments in climate research, education and technology pay off and are a key part of the economy.
- Early-21st-century consumption patterns continue, but with lower net emissions; some environmental issues persist, such as biodiversity loss and impacts from resource extraction.
- In the absence of women's full participation and decision-making, existing economic systems and ideas about economic growth are not extensively interrogated; rather, climate policies are developed based on assumptions about status-quo levels of demand and growth.
- Policies for climate mitigation are prioritised over adaptation and resilience. The effectiveness and inclusiveness of mitigation and adaptation policies is decreased in the absence of women's full participation and decision-making.
- Gender considerations and policies are set aside as a 'nice-to-have' to focus on climate change first, so girls and women continue to lack equal access to education, finance, property rights, and health.
- High economic and social inequality persists within and between countries, which dampens productivity and GDP growth and can destabilise societies.

For an in-depth description of what this future entails, see Annex 3C.

Image by Moniruzzaman Sazal / Climate Visuals

Vignettes

Signals of an unstable future

FROM THE NEWS IN 2043

A coalition of small island states is suing Cephalopod Minerals, a large company that has been mining the seabed off Nauru for polymetallic nodules, a source of nickel and other metals used in electric vehicles. The coalition, led by Vanuatu, is suing to have Cephalopod clean up mining damage so that fisheries can recover.

In the upcoming Venezuelan presidential elections, the front-runner is Carolina Maria Blanco, a charismatic former mayor. She is running on a populist anti-globalisation and pro-farmers' rights platform.

In the United States, states that abandoned women's reproductive rights two decades ago now experience higher inequality, greater poverty, food insecurity and dependence on public resources, and are less and less able to attract investment from multinational enterprises, including thriving climate-solutions companies.

A study finds that a third of working-age women in China are out of work, under-employed, or have left the labour force altogether, representing an economic loss of up to $450 billion. Women interviewed cite long, inflexible hours, a lack of role models, harassment, the inability to find childcare or eldercare, and a lack of employment protections among the factors driving them out of the corporate sphere. Even the promise of higher pay, from companies reckoning with a rapidly ageing workforce, does not attract them.

According to the 2043 Global Agricultural Productivity report, agricultural productivity growth has slowed for the fifth year in a row, even with the greater availability of food and agricultural technologies. Key supply chains falter, and 28% of the global population is at risk of food insecurity.

An inflation crisis is looming. Agricultural productivity has slowed, and at the same time the cost of food production has risen as countries and companies spend more to treat and clean water or to adopt high-tech agriculture at scale. The price of minerals and raw materials has gone up as well, as demand for clean energy and batteries has ballooned. There's a gendered labour crunch, in which women are disproportionately absent from engineering and production jobs. And because the growth in women's incomes has stagnated over the last decade, households can't keep up with inflation.

Food for thought: Questions

Future C, Climate policy prioritised over gender policy, with unequal, unstable outcomes, depicts an unequal, unstable world, in which climate progress is overshadowed by other kinds of crises. How might investors maximise the potential for investment in gender? What is the role of investment in shifting policies and even underlying social dynamics towards more long-term, creative and innovative thinking, and what kinds of action can you take to contribute to a just, sustainable future richer in opportunities? What steps might be taken **today** to mitigate risks and maximise positive impacts? Here are some questions to ask yourself while exploring this scenario:

What are the potential climate and gender risks and opportunities in this future?

- What are the specific investment risks?
- How do these vary across our target geographies, sectors, and/or asset classes?

How will our current business or investment strategy fare in this future?

- Would we have enough liquidity to respond?
- To what extent are these risks already built into our current strategy?

What needs to happen to avert this scenario, or to best mitigate its risks?

- What would our top three actions be – whether strategic, operational, or investment?
- What can be done on a local, industry, sectoral, or national scale?
- How can investors collectively encourage policy change to access the most desirable aspects of this future? What collective action might be needed to uncover new opportunities for impact?

What key ingredients – such as regulatory certainty, more granular data, or more direct contact with on-the-ground, local organisations – do we most need to accomplish our objectives in this scenario?

Which stakeholders do we need to start collaborating with today for meaningful action at scale?

These questions might be used as the basis for discussions with investment teams, the board, LPs, clients, asset owners and other stakeholders, about challenges and opportunities in gender and climate investment for a just and sustainable future.

D

Coordinated climate and gender policies lead to scalable, inclusive action

Rapid, extensive and coordinated climate policy, extensive enactment of gender policy and rapid progress on gender equality

Key features of this future

- Gender policies are expansive and widespread, enabling women's equal access to education, property rights, care, finance, health, and other domains.
- An expansion of women in employment and leadership improves decision-making on public and corporate policies to address global challenges, including climate change.
- Governments enact policies and make gender-smart investments for climate mitigation, adaptation and resilience, and to facilitate a just transition to a green economy.
- Some industrialised countries with rapidly ageing populations engage in serious conversations about degrowth, and create supporting policies and incentives.
- Data on the impacts of gender and climate policies is more readily available in larger quantities, and feeds back into public- and private-sector decision-making.
- Businesses, governments and institutions recognise gender equality as an accelerator of climate mitigation, adaptation, and resilience and integrate it into climate policy.

For an in-depth description of what this future entails, see Annex 3D.

Top image by Preston Keres / USDA/FPAC

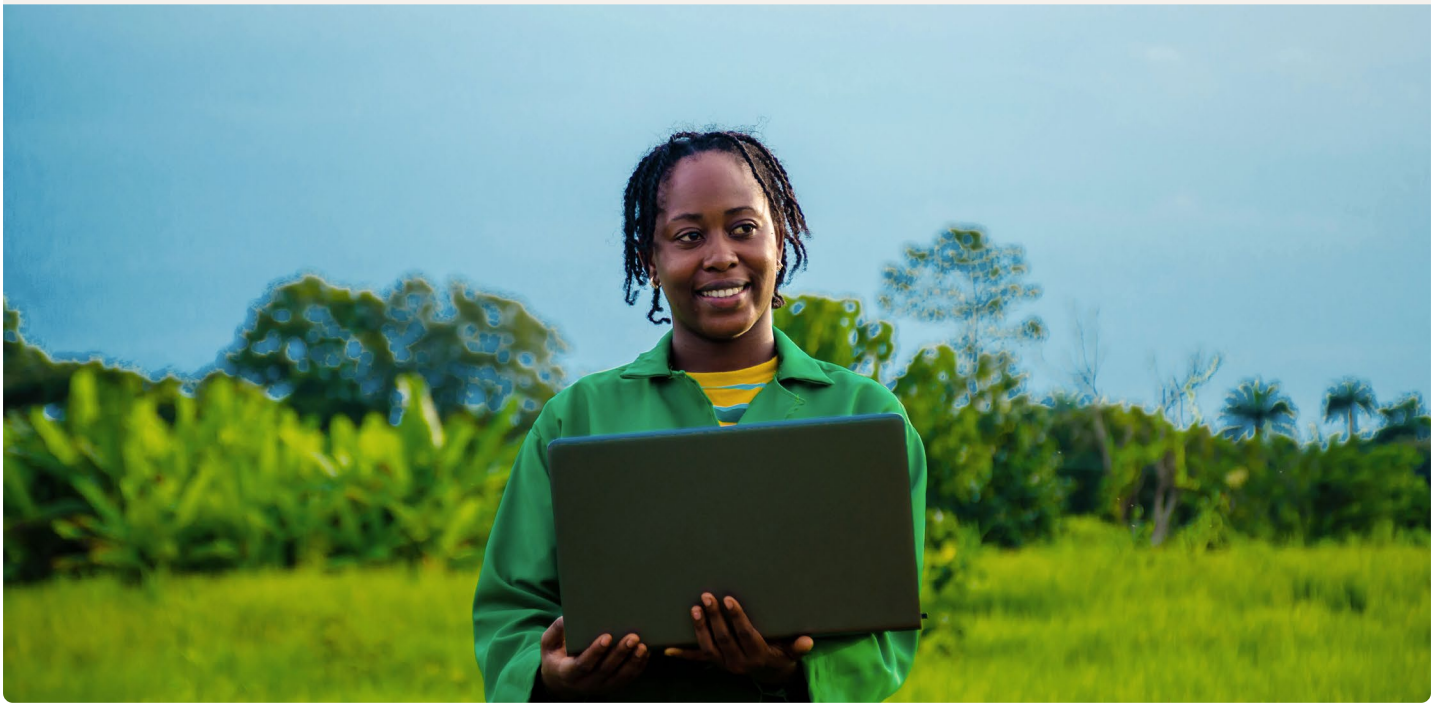
Vignettes

Exam season, June 2043...

“Is inclusion the most powerful accelerator of solutions to environmental, political and economic challenges?” is a question on the 2043 Secondary School Leaving Certificate history exam. “Please analyse and discuss, using examples from a range of countries and contexts, how economies around the world have harnessed inclusion to develop creative social and technological solutions to challenges such as climate change and global pandemics.”

Sixteen-year-old Esther in Lagos, Nigeria, has no shortage of examples. Her grandparents’ farm received new training and tools through a government programme and became productive enough that her mother could attend secondary school and university. Esther’s mother studied nursing and became an entrepreneur – integrating insurance, public health, climate and weather data to help companies model and predict their employees’ chronic and emergency health needs. Meanwhile, Esther’s classmate Mariam, who attends

class remotely from the shores of Lake Chad, collects weather data that feeds into a database run by her community’s co-operative. The database and its tools help local farmers and herders bid for, negotiate, and assign water rights.



Food for thought: Questions

In these futures, many risks and opportunities arise from the scale and combination of climate (in)action and gender (in)equality. In **Future D, Coordinated climate and gender policies lead to scalable, inclusive action**, many new innovations and ways of doing business arise from the combination of climate action and gender equality.

Investment plays a role in helping to shift policies and underlying social dynamics towards more long-term, creative, and innovative thinking, and investors can harness the might of finance to nudge societies and economies towards a just, sustainable future rich in opportunities.

So, what steps might be taken **today** to mitigate risks and maximise positive impacts? Here are some questions to ask yourself while exploring this scenario:

What are the potential climate and gender risks and opportunities in this future?

- What are the specific investment risks?
- How do these vary across our target geographies, sectors, and/or asset classes?

How will our current business or investment strategy fare in this future?

- Would we have enough liquidity to respond?
- To what extent are these risks already built into our current strategy?

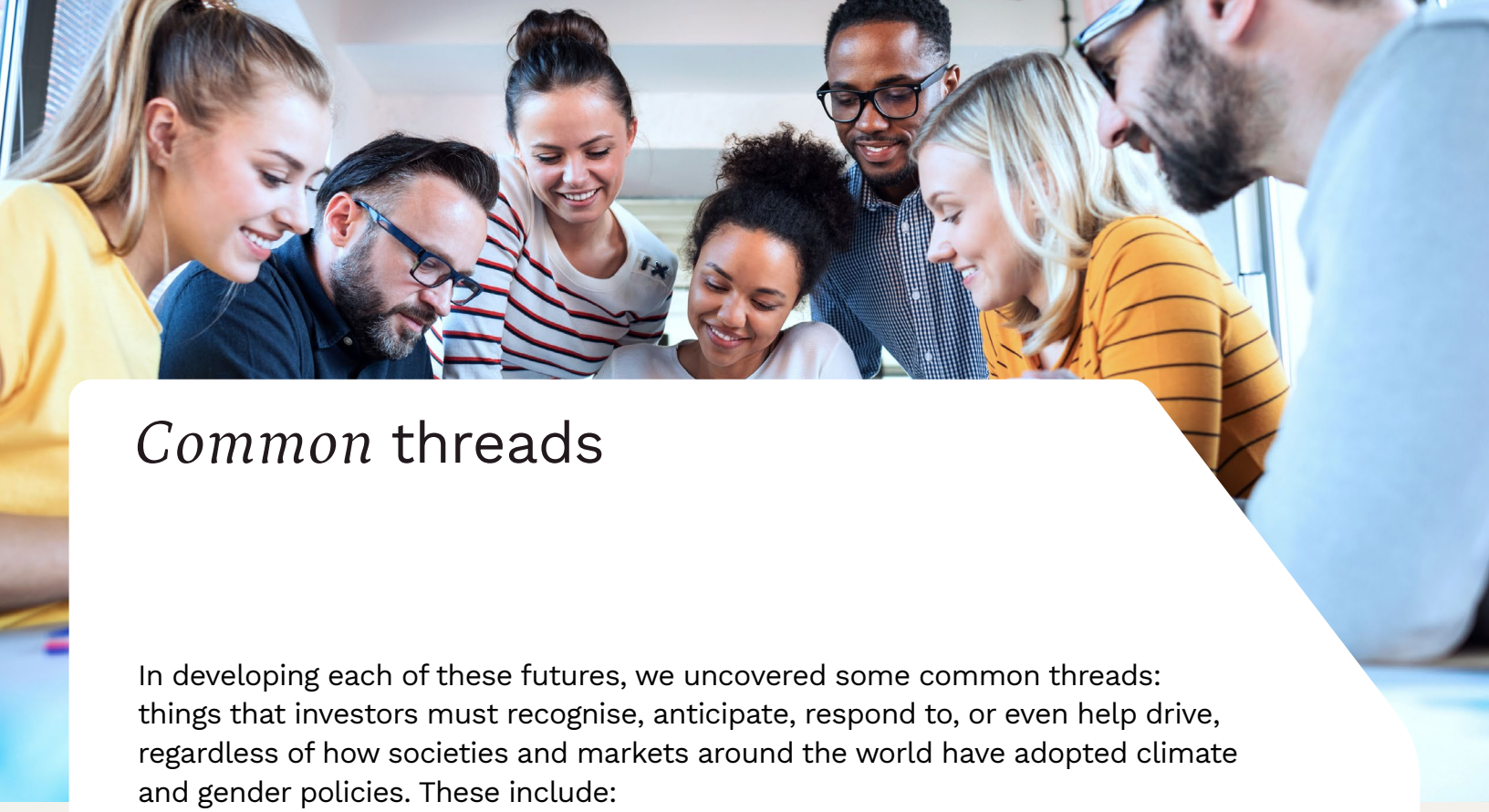
What needs to happen to avert this scenario, or to best mitigate its risks?

- What would our top three actions be – whether strategic, operational, or investment?
- What can be done on a local, industry, sectoral, or national scale?
- How can investors collectively encourage policy change to access the most desirable aspects of this future? What collective action might be needed to uncover new opportunities for impact?

What key ingredients – such as regulatory certainty, more granular data, or more direct contact with on-the-ground, local organisations – do we most need to accomplish our objectives in this scenario?

Which stakeholders do we need to start collaborating with today for meaningful action at scale?

These questions might be used as the basis for discussions with investment teams, the board, LPs, clients, asset owners and other stakeholders, about challenges and opportunities in gender and climate investment for a just and sustainable future.



Common threads

In developing each of these futures, we uncovered some common threads: things that investors must recognise, anticipate, respond to, or even help drive, regardless of how societies and markets around the world have adopted climate and gender policies. These include:

Instability

Each of these futures is a snapshot of a specific point in the year 2043. They are not necessarily stable states. If trends in each future persist, points in the future of 2043, 2047 or 2052 could look very different. For instance, in future C, if gendered measures continue to be left out of climate policies and actions, progress on climate mitigation and adaptation could stall or backslide. It is worth asking: what actions do we need to take as investors, individually and collectively, for a stable, sustainable future?

Need for tools

No matter how societal norms and values shift over the next two decades, indicators, frameworks, and tools are still needed to standardise companies' reporting, incentivise investment, help investors translate these societal shifts into financial terms, and drive further change.

In our focus groups and workshops, participants reiterated the importance of having integrated standards, the collection and availability of gender-disaggregated data, pricing and modelling externalities accurately, and defining new kinds of value. In particular, there was strong agreement that new models of value are needed, but few standardised frameworks exist to define and measure the value created by a gender or justice lens, for example.

Survivability and resilience

Regardless of climate action in the 2020s, the world is likely to reach 1.5°C of global temperature rise by 2030 or even earlier. According to the United Nations' 2018 special report on 1.5°C of warming, with this increase, extreme hot days in the mid-latitudes will be 3°C hotter than pre-industrial levels, while about 14% of the world's population would be exposed to extreme heat waves once every five years. By 2100, sea levels will rise by 0.26 to 0.77 metres, while biodiversity, coral reefs and marine fisheries will see declines.

In other words, communities, economies and investments are still exposed to a degree of climate risk, and survivability is paramount in each of these futures. What differs from future to future is the degree of social trust and cohesion, and our ability to collaborate for survival rather than compete, that confer resilience. In each of these futures, local solutions for climate adaptation will be a powerful tool for survivability, and integrating a gender lens to local solutions boosts the longevity and performance of such investments.

Conclusion

The decisions we make today in 2023, as individual investors or on a societal scale, will determine our future paths. Time is running out, not only to avert the most severe and lasting impacts of climate change, but also to set us on track to deal with those impacts through adaptation and resilience – including the social resilience of societies and communities, under gender-equal leadership and with gender-equal participation in solutions.

In fact, many of the characteristics of future A – the world without coordinated climate or gender policy – are already showing up today in communities around the globe. And while future C – in which climate policy, technology and other action advances at speed – is gathering momentum today, it is also deeply unstable without accompanying shifts in gender equality and other social, economic, and political factors.

But investors of all stripes have more influence and agency over the future than we may imagine. Globally, insurance companies have more than US$40 trillion in assets under management (AUM), while the world's largest pension funds have more than $23 trillion.[13]

Collective action is beginning to reshape the investment landscape. The Net Zero Asset Managers initiative supporting investment in pursuit of net-zero emissions by 2050 has over 300 signatories and US$59 trillion in AUM, while the members of 2X Global's 2X Challenge invested $27.3 billion for gender lens investment by the end of 2022. In early 2023, the Women in Finance Climate Action Group, a collective of women leaders in the financial industry, published a framework for asset managers and other investors to integrate a gender and climate lens in their organisations and investment processes.

Meanwhile, smaller and more nimble investors and asset owners often have deep roots and far-reaching networks in their communities. Some investment models, such as neighbourhood investment trusts, even enable low-income residents to invest in their neighbourhoods' development and share in the benefits.[14] With such influence, investors need not accept the trends in these scenarios as inevitable. The future doesn't just happen to us. Instead, how might we reflect on the futures posed in these scenarios, and use our collective power to achieve our own vision of systemic change?

> Investors of all stripes have more *influence and agency* over the future than we may imagine.

The deployment of capital, and the effectiveness of those investments, are shaped by many external factors: policy and regulatory environments, consumers' behaviour, economic contexts. And other factors. But they can also help reshape environments and systems. We believe gender- and climate-smart investments will set us on a trajectory towards a more sustainable and equitable tomorrow.

FURTHER READING ABOUT GENDER AND CLIMATE INVESTMENT

GenderSmart Gender & Climate Investment: A Strategy for Unlocking a Sustainable Future: This report hopes to inspire more investors to enter the field of climate and gender investing, revisit portfolios, and consider more deeply how to link climate and gender through their investment processes. It also supports investors who are already on this journey by bolstering the business case with compelling narratives, datasets, and ways to spread the word.

How-to-guide on sustainable bonds: We worked with the FCDO Low Carbon Energy Programme (LCEP) in the ASEAN region to co-produce a piece of work that focuses on how to achieve effective integration of gender and climate priorities into green- and sustainability-linked bonds.

Unleashing the Power of Gender-Smart Climate Investing in Developed Markets: This report includes a set of case studies illustrating the 'what, why, why now and how' of gender and climate investing in developed markets, and the opportunities that can arise from integrating both lenses. They represent a wide range of actors, sectors, investment types, and asset classes, from infrastructure to food and apparel.

Gender and Climate Finance Toolkits: Toolkits enabling investors to identify opportunities and mitigate risks in gender and climate finance. These toolkits include specific recommendations, case studies and resources for investors to use.

2X Criteria: Global industry standard for gender lens investing. The 2X Criteria have been internationally harmonised and integrated into the IRIS+ framework for impact management and measurement of the Global Impact Investing Network (GIIN).

Women in Finance Climate Action Group: Applying a Gender Lens to Climate Investing Framework. The Women in Finance Climate Action Group (WIFCAG) comprises women leaders in the finance industry who aim to improve gender equality in climate investments, and in particular, how financial institutions can better assess, measure and report on the gender-responsiveness of their climate-related investments, products, and services.

Inclusive gender and climate finance report: Investing at the nexus of gender and climate finance has been evolving in recent years: from the development of new research and case studies that help make the case for this approach and illustrate its benefits, to the emergence of tools to support investors in adopting an integrated approach. Yet few of these examples and tools have engaged intentionally with the full breadth of intersections between climate action, gender and a broader inclusive and JEDI lens in the investment community. This guide is designed to help investors and investment intermediaries do just that.

There's room to update and sharpen these futures.

And we want to hear from you. How can these futures be localised and pinpointed in time and space? How might they be applied to a specific industry or investment milieu? Can we help you workshop your strategies for the future?

Get in touch at

info@2XGlobal.org

Investor *guides*

Image by Mizuno K from Pexels

A note for users

These guides are designed to help you use the different future scenarios in the context of your work. Each guide includes questions for key groups of stakeholders.

Please choose the guide that most closely fits your organisation's profile (DFI, family office, foundation, fund manager, or intermediary). You will find further vignettes about how an organisation like yours might behave in each scenario. If you ended up in that situation, would you want to act as that example organisation does? Do you want to prevent that scenario from coming to pass? What would you do today to prevent it? Or, do you want to help that scenario come into being? What would you do today? It helps to think about what you would do about each scenario if you found yourself there. We encourage you to try that thought exercise, before assessing whether you think the scenario or vignette is particularly likely.

SELECT THE GUIDE THAT BEST FITS YOUR ORGANISATION

Development finance institutions guide
Page 31

Family offices and foundations guide
Page 36

Fund managers guide
Page 41

Intermediaries guide
Page 46

WHEN AND HOW SHOULD YOU DO THIS THOUGHT EXERCISE?

If your goal is…	You might…
Catalyse action	…organise a **workshop**, bring decision-makers together, and use the scenarios to create a sense of urgency
Inform	…get people in a room and use the scenarios as a **game** or activity to raise awareness
Amplify	…familiarise influencers with the scenarios and ask them to be **ambassadors** who can explore and explain the 'so-what?' to your audiences

You may even wish to **localise, contextualise or adapt** the different scenarios. Each vignette in this document is only one example of how the future could play out. To change the scenarios to fit your context, while staying within the matrix of gender and climate status quo or progress, To do this, first explore the annexes on page 29. These pages will help you keep the flavour of each scenario, with information about the axes, key climate and gender policies, and each future.

Development finance institutions guide

Development finance institutions (DFIs) and multilateral development banks (MDBs) help seed and catalyse private-sector investment in countries and contexts that otherwise would be too challenging to attract private capital. Typically, they have a mandate to use market mechanisms to advance private-sector economic development and address Sustainable Development Goals in these countries and contexts.

While much hinges on the policy context where they operate, DFIs and MDBs have the power, influence and opportunities to shift policy, practice and even underlying social dynamics towards more long-term thinking. They can support 'higher-risk' projects, mobilise private capital and empower developing economies to move quickly towards a more just, sustainable future.

What might 2043 look like for DFIs?

FUTURE

A

Slow and uncoordinated policies lead to accelerated environmental and social collapse

The **United States International Investment Corporation (IIC)** invests in development projects in low- and middle-income countries, especially those of strategic importance to the US. Typically, development finance plays a role in de-risking investments and spurring the deployment of private capital.

But lately, due to climate change, some investments have simply become too risky. For example, construction of a bridge to the airport in Freetown, Sierra Leone, had to be put on hold due to landslides. Between shrinking returns, rising instability and conflict in target countries, and shifting political mandates at home, IIC has opted to de-prioritise its women's empowerment investments, such as funding for women-owned small businesses, and direct the bulk of funding towards climate adaptation instead.

"We'll leave the gender stuff to USAID – they have better NGO networks anyway," said CEO David Bannon, a political appointee. Recently, a House of Representatives sub-committee review has critiqued IIC projects for failing to achieve the desired economic effects.

FUTURE

B

Gender policy comes first, while climate policy and action fail to scale

British Overseas Investments (BOI) women's empowerment investments have been a success – to a degree. In middle-income countries like Indonesia and Brazil, its work with investment funds and NGOs has contributed to a rise in urban women's incomes, and women now make up half of board members and business owners in these economies.

But in sub-Saharan Africa, BOI's support of women farmers and entrepreneurs hasn't produced a better quality of life for most – not with droughts and energy insecurity a daily reality. In fact, with greater financial means, women are more likely to move out of their region or even country with their extended families. This is not the development strategy that BOI envisioned.

What might 2043 look like for DFIs?

FUTURE

C

Climate policy prioritised over gender policy, with unequal, unstable outcomes

Economies like China are well on their way to a net-zero future. Thanks to the **East Asia Development Bank**'s heavy investment in climate technologies and renewable energy infrastructure, for example, the once-coal-fired industrial plants of northern China now run on green hydrogen and wind power. But at the same industrial plants, manufacturing tasks are performed by robots, with other skilled high-tech roles dominated by men. Without a gendered analysis of climate policies, some positive impacts of these investments are unevenly distributed.

A generation of young people watched their parents struggle to care simultaneously for elders and children without access to formal care services or support, while fundamental care infrastructure was under-funded. Consequently, many – especially young women – are declining to get married or conform to traditional expectations. Wealthier youths prefer to pursue careers overseas or start their own creative or digital businesses. In poorer regions, more girls than boys leave education during or after high school to care for elderly parents who had neither state safety nets nor private insurance. Rural young women with lower levels of education either leave the workforce or work in the informal economy in low-paid service jobs; their economic precarity leaves them vulnerable to gender-based violence and other risks.

FUTURE

D

Coordinated climate and gender policies lead to scalable, inclusive action

It may have taken twelve years, but the **Taskforce on Defining and disclosing Value framework** was finally published in 2034. This framework integrates previous frameworks for climate-related, nature-related, economic inequality-related and gender-and-broader-diversity-related financial disclosures. At first the use of the TDV framework was voluntary, but by 2043 it was adopted by most stock exchanges and international financial institutions. Initially, this standardised disclosure framework enabled investors to engage with and reward leading companies; not long after, governments began using the framework to guide the development of laws and policies.

As a DFI or MDB, what steps might you take **today** to mitigate risks and maximise positive impacts? As you explore each future scenario, you might consider:

You might use these questions as the basis for discussions with your team, directors and governors, and other stakeholders about challenges and opportunities in gender and climate investment for a just and sustainable future.

What barriers and constraints do we currently face in integrating more of a gender and climate lens into our investments? How might we overcome these?

What does our current gender and climate finance strategy look like?

› Which of the scenarios do we feel that strategy would serve well? Where do we think we would face the biggest gaps (assuming we did nothing differently)?

› Which scenario/s might we want to deep-dive further into?

What are the potential climate and gender risks and opportunities in each future? How do these vary across the geographies, sectors, or asset classes in which we operate?

How will our current investment strategies fare in each future? Would we have the liquidity we need in our portfolio to respond?

How do our current investment processes consider gender and climate together? What specific gender and climate targets are built into our impact measurement processes? How would these need to shift in light of these scenarios?

What are the most important actions and initiatives needed to access the most desirable elements of each future? What are the most important actions to mitigate climate-related and social risks and take advantage of opportunities?

› What would our top three actions be?

› How can we contribute to encouraging policy and social change to access the most desirable elements of this future?

› Which other stakeholders do we need to start collaborating with for meaningful action at scale?

What would we need to shift internally – across operations, processes, or governance dynamics – to better respond?

What key ingredients – such as regulatory certainty, granularity of data, or more direct contact with local organisations and stakeholders – would help us accomplish our objectives in this scenario?

Family offices and foundations guide

Foundations and family offices tend to have substantial flexibility to define a wide range of financial and impact objectives and formulate strategies for their investment portfolios in service of their mission. They experience various governance dynamics and decision-making processes. Some family offices may be newer to the array of tools and frameworks available to define environmental and social goals, measure progress, or balance financial and non-financial goals.

As a family office or philanthropic foundation, you have tremendous opportunity to define and pursue a positive environmental and social impact – to harness the power of investment and deploy capital in different ways to envision and shape a better world. You may seek to minimise any potential negative impacts of your investments so as not to threaten or undo the positive impacts of your work.

What might 2043 look like for foundations and family offices?

FUTURE

A

Slow and uncoordinated policies lead to accelerated environmental and social collapse

New Mexico, United States, 2043 – The Southwest United States faces a high degree of water and heat stress, exacerbated by climate change. **Neptune Capital**, a consortium of family offices and impact investment funds led by a Native American, gender-balanced team, anticipated this two decades ago. Since 2022, Neptune has co-owned and developed solar-powered water treatment solutions for reservations and nearby communities together with local Native American community stakeholders, boosting climate resilience even amid worsening environmental conditions.

Because it acted early and collaboratively, Neptune's efforts are effective. Besides developing, owning and maintaining water treatment facilities, the investor consortium also trains students from the area to monitor and manage droughts, wildfires and precipitation using fine-grained satellite data. Dr Coral Yazzie, who was one of the first students in this programme, now leads the national Bureau of Land Management. Others have served as lead hydrologist for the Navajo Nation, state director of forestry, and national director of the state's environment department

FUTURE

B

Gender policy comes first, while climate policy and action fail to scale

Having made her fortune in 2031 by developing the world's most widely used menopause technology, entrepreneur and philanthropist Laura Parsons then set up a foundation to give it all away. The foundation, **Substance**, invests in women at scale in intersectional ways, at the nexus of education, economic empowerment, and climate adaptation. In interviews, Parsons has said that philanthropy and impact investment are badly needed to fill policy gaps, including around climate adaptation in a rapidly warming world. She believes women are key drivers of solutions, but is deeply concerned that even philanthropy and investment for systems change cannot keep up when climate tipping points are reached.

What might 2043 look like for foundations and family offices?

FUTURE

C

Climate policy prioritised over gender policy, with unequal, unstable outcomes

Golden Landmark Capital, a family office in Singapore, is experiencing a pitched power struggle among its family members. But rather than generational, the split is gendered. Women and non-binary family members feel the family's investment strategies don't have enough of a transformative impact on unequal social systems and want to do more, but most men in the family would rather preserve and build wealth so the family can donate larger absolute sums of money to key philanthropic causes.

FUTURE

D

Coordinated climate and gender policies lead to scalable, inclusive action

The **Global Sustainable Energy Alliance** was started in 2021 to invest in clean energy access for the 2.4 billion people without reliable access to it. Initially, it drew from philanthropic funding, development finance and emerging economies' shares of loss and damage funding, to design and build grid infrastructure, electricity markets, distributed energy and a range of other solutions to meet emerging markets' most pressing needs. It consistently applied a gender and inclusion lens to each of its projects, screening out those that might potentially have negative impact for women, and supporting women as workers, consumers and business and household decision-makers. This gender lens helped projects thrive and better serve the needs of customers and users. Today, the Alliance is largely self-sustaining: it designs, builds and operates reliable, climate-resilient energy infrastructure in partnership with public sector agencies.

Image by Raphael Pouget / Climate Visuals Countdown

What steps might you take **today** to mitigate risks and negative impacts and maximise positive impacts? As you explore each future scenario, some questions to think about include:

You might use these questions as the basis for discussions with trustees, wealth owners, family members, advisors, investment managers and other stakeholders about challenges and opportunities in gender and climate investment for a just and sustainable future.

What are the potential climate and gender risks and opportunities in each future? How do these vary across the geographies, sectors, or asset classes in which we operate?

Which of these scenarios do we feel our current investment strategy and approach would be most suited to face? Where do we think we would feel the greatest tension?

How do we see ourselves re-allocating our portfolio in light of one or all of these scenarios?

How would we be able to leverage more patient capital in our portfolio? Are there more risk-aware strategies we can deploy today to be future-proof?

How will our current investment strategies fare in each future? How do our chances of achieving our overarching mission change with each future?

Where might we allocate grants for technical assistance to support the development of new solutions?

What are the most important actions and initiatives needed today to access the most desirable elements of each future? What are the most important actions today to mitigate key climate-related and social risks and take advantage of new opportunities?

› What would our top three actions be?

› How can we as investors or philanthropic funders contribute to collectively encouraging policy and social change?

› Which other stakeholders do we need to start collaborating with for meaningful action at scale? How might we capitalise on our existing networks and connections?

› Are there more explicit co-investments or other partnerships to better address these possible futures?

How do our current investment processes consider gender and climate together? What specific gender and climate targets are built into our impact measurement processes?

What key ingredients – such as regulatory certainty, granularity of data, or more direct contact with local organisations and stakeholders – will help us accomplish our objectives in this scenario?

With whom do we need to partner and collaborate?

What broader field-building initiatives could we support to bridge identified investing gaps?

Fund managers guide

Today, the overall impact investment market has total assets under management of just over $1 trillion, a sum that has grown rapidly in the past few years. Individual impact investment funds or impact-focused portfolios tend to be relatively small in size.[15]

As an impact-focused fund manager, you tend to actively engage with investee companies. While you may incorporate public equities and debt into your portfolios, you typically work in private markets. These characteristics give you the ability to influence the actions and mindsets of companies and communities, at a local level and beyond. You can play a role in catalysing a shift towards more long-term, creative and innovative thinking, and are often the first to spot patterns in how such shifts give rise to new innovations and ways of doing business.

What might 2043 look like for fund managers?

FUTURE

A

Slow and uncoordinated policies lead to accelerated environmental and social collapse

Resolute Partners, an impact-focused fund manager, saw it coming. Its leaders have spent the past three decades building awareness and a business case for others to integrate gender and climate themes in investment, and have had limited success getting others to buy in. But it's nearly impossible to out-invest environmental collapse. As the Amazon rainforest begins to disappear, for instance, South America experiences droughts and desertification, which disrupt supply chains from cocoa to soy regardless of the decision-making power of women farmers. In the longer term, both Resolute's investments and its social and environmental objectives are being hindered by repeated disasters and the economic impacts of runaway warming.

FUTURE

B

Gender policy comes first, while climate policy and action fail to scale

Under the leadership of its CEO, Karin Jansen, as well as a gender-balanced executive team and board, **NPG Group, a Dutch fund manager focusing on technology**, invests in renewable energy, sustainable agriculture, and other climate change mitigation solutions. But it also invests heavily in unconventional oil and gas and pipeline services companies. Jansen and her board feel that actively engaging with fossil fuel companies and services around policy change is more effective than screening them out.

What might 2043 look like for fund managers?

FUTURE

C

Climate policy prioritised over gender policy, with unequal, unstable outcomes

Climate tech investor **Tycho Capital** has sunk billions into zero-carbon transport solutions, but it's observing a rebound effect: everyone wants their own private electric vehicle. In some places, where public transit is under-used and unsafe for women commuters, a private EV is almost a necessity. That's been great for vehicle sales, but the emissions reductions and positive environmental impacts aren't as large as investee companies promised; the energy and materials needed to make vehicles, dismantle or remanufacture them at the end of their first lifespan, or distribute them to where they're needed all take an environmental toll. EV supply chains are frequently disrupted, especially where factories aren't resilient to climate impacts. And with so many vehicles on the roads, traffic jams are a fact of life. Tycho is considering investing in electric light personal aircraft next.

And when **Ocean Fertilisation Inc.** hit the headlines again, investment bank **Archer Sterling** should have been pleased. After all, Archer Sterling helped underwrite the geo-engineering company's IPO in 2030, and geo-engineering is a pillar of its climate-investment portfolio. But twelve years on, Ocean Fertilisation, which aimed to turbocharge ocean phytoplankton growth to act as a carbon sink, is in crisis. The technology works, but recently, phytoplankton died off and decomposed at scale, and the resulting low-oxygen conditions killed millions of fish and up-ended fisheries in the Coral Triangle. Swaggering founder Ken Lumos also makes the news frequently for harassment and discrimination, mismanagement, bullying, and controversial statements, and the heavily-male board, stocked mostly with Lumos's associates, rarely stops him. Ocean Fertilisation share prices often plummet then surge in rollercoaster fashion, and investors are nervous.

FUTURE

D

Coordinated climate and gender policies lead to scalable, inclusive action

In a world first, **Jewelbox Capital** becomes the first fund manager to build a portfolio around just and regenerative degrowth. Inspired by the community land trusts popular in the late 2020s, Jewelbox is community-owned and invests in local businesses, care economy solutions, and peer-sharing platforms, among other opportunities. The degrowth movement is no longer fringe, as it was two decades ago; instead, it is the dominant model for how citizens and communities live, work, and play today. Jewelbox co-CEO Sheila Narayan says, "It's funny to think that just twenty years ago, people actually thought of endless economic growth as a viable economic model."

What actions might you take **today** to access desirable elements of these futures, to mitigate risks and maximise positive impacts? As you explore each future scenario, consider:

You might use these questions as the basis for discussions with your team, board, LPs, asset owners and other stakeholders about challenges and opportunities in gender and climate investment for a just and sustainable future.

What are the potential climate and gender risks and opportunities in each future? How do these vary across the geographies, sectors, or asset classes in which we operate?

How would our LPs respond to investment decisions in reaction to a particular scenario – would we be able to convince them of the urgency?

How will our current investment strategy fare in each future? Would we have enough liquidity in our portfolio to respond? What changes might we need to make to achieve our objectives in each future?

What are the most important actions and initiatives needed today to access the most desirable elements of each future? What are the most important actions today to mitigate key climate-related and social risks and take advantage of new opportunities?

› What would our top three actions be?

› How can we as investors contribute to collectively encouraging policy and social change?

› Which other stakeholders do we need to start collaborating with for meaningful action at scale? How might we capitalise on our existing networks and connections?

How do our current investment processes consider gender and climate together? What specific gender and climate targets are built into our impact measurement processes?

What key ingredients – such as regulatory certainty, granularity of data, or more direct contact with local organisations and stakeholders – will help us to accomplish our objectives in this scenario?

Intermediaries guide

Many risks and opportunities arise from the scale and combination of climate (in)action and gender (in)equality. Survival and resilience may become even more pressing, or new policies and social dynamics may give rise to new innovations and ways of doing business.

Investment plays a role in helping to shift policies and underlying social dynamics towards more long-term, creative, and innovative thinking, and investors can harness the might of finance to nudge societies and economies towards a just, sustainable future rich in opportunities.

As an advisor or service provider, you may provide education, support clients' investment strategy and manage their investments along various themes, or build programmes, frameworks, partnerships and coalitions to deliver positive environmental and social outcomes. You possess a combination of deep technical expertise and broad experience with different clients and their needs. You have a vision for a more just, sustainable future, and through your work, you have the potential to influence mindsets, policies and practices in pursuit of this vision.

What might 2043 look like for intermediaries?

FUTURE

A

Slow and uncoordinated policies lead to accelerated environmental and social collapse

The VC firm: Too late, **Echidna Capital Management** realises the cutting-edge technology firms it has invested in are neither climate-resilient nor gender-inclusive. Its defence-technology portfolio companies, for instance, require ultra-clean water for manufacturing as well as mined minerals and materials – but in a climate-stressed world, these are in short supply. So, while demand booms for defence and security technologies, Echidna's companies can't get their domestic production to keep up with their clients' demand. What's more, women previously made up over half these manufacturers' factory labour, but are increasingly leaving or turning down jobs due to lengthier, hotter commutes and shop-floor chemical exposure.

Meanwhile, the courier-service platform in which Echidna has a stake experiences high turnover by its gig workers due to gender-based harassment on the job, demands to work in untenably hot weather, and other environmental and labour challenges. It has not been profitable in the six years since its founding.

What might 2043 look like for intermediaries?

FUTURE

B

Gender policy comes first, while climate policy and action fail to scale

For eight years, **Riveter Ventures** has invested in women-led companies that are disrupting their industries, from healthcare to technology to real estate, and whose businesses hinge heavily on women's needs, usage, decision-making, and purchasing behaviours. While these portfolio companies have done well to date, they're running into an important roadblock: expanding and scaling in 'bottom of the pyramid' markets. For instance, health companies' solutions are sorely needed in markets with high exposure to climate impacts such as heat and pollution. But while women make health-purchase decisions for themselves and their families, their purchasing power is limited by economic instability, crop or business failures. Moreover, their adoption of health solutions is undermined by a lack of access to renewable energy and clean household cooking and lighting. A large segment of would-be customers is also on the move, in the process of economic and environmental migration.

Meanwhile, **XX Capital**, a woman-led fund manager, has just announced a $150 million initiative focused on climate education and upskilling under-represented and under-financed groups for climate adaptation projects. While XX previously invested in fintech, health and education in Asia with a gender lens, this is its first climate adaptation initiative. Climate adaptation and resilience has been under-invested for decades, as countries have not come to any major climate accords since 2015's Paris Agreement, and XX founder Genevieve Liu feels there is a major gap. "Feminist movements have achieved something amazing on gender equality by going from local to global action. Likewise, we need climate adaptation to start local and snowball into a global movement," Liu said.

As part of this initiative, XX Capital channels funding to first-time fund managers with clear investment theses around climate education and training and who know and understand their local constituencies.

What might 2043 look like for intermediaries?

FUTURE

C

Climate policy prioritised over gender policy, with unequal, unstable outcomes

In an effort to address what it sees as a major gap in investment, gender-lens fund **Hedy Ventures**, which specialises in manufacturing and technology, has been honing and updating its investment practices for two decades. In 2022 it implemented a baseline screen to screen out deals that could negatively impact women, as well as a due diligence framework that seeks out gender-equality criteria from each portfolio company.

In a side project with Stellenbosch Business School, Hedy Ventures collects and amplifies stories from gender-disaggregated data, showing that a gender lens improves manufacturing start-ups' ability to mitigate climate change and adapt to its impacts. Hedy was an early investor in manufacturing 'unicorns', from additive manufacturing to advanced electronics for smart building controls, and its portfolio companies have been free from the corruption and mismanagement scandals that have plagued other fast-growing African start-ups. What's the secret? 'Gender-smart due diligence and technical assistance,' says Hedy founder Stella Mwangi.

FUTURE

D

Coordinated climate and gender policies lead to scalable, inclusive action

Roundabout Advisors was founded in 2023 to invest in regenerative businesses and circular economy solutions. Beyond the technical elements of circular economy solutions, whether returning biodegradable materials to ecosystems or unlocking business models, it seeks out solutions designed, developed and built with inclusion and empowerment in mind. Recently, Roundabout joined a public-private collaboration of investors, city governments, and international organisations to accelerate a circular and inclusive built environment, on the basis that the built environment is one of the world's most important drivers of climate change mitigation, adaptation, and resilience.

Finally, the **Taskforce on Defining and disclosing Value framework** was published in 2034. This framework integrates previous frameworks for climate-related, nature-related, economic inequality-related and gender-related financial disclosures. At first the use of the TDV framework was voluntary, but by 2043 it was adopted by most stock exchanges and international financial institutions.

How might you support clients **today** to mitigate risks and maximise positive impacts? As you explore each future scenario, some questions to think about include:

You might use these questions as the basis for discussions with your clients, team, board, and other stakeholders about challenges and opportunities in gender and climate investment for a just and sustainable future.

What are the potential climate and gender risks and opportunities in each future? How do these vary across the geographies, sectors, or asset classes in which we operate?

How will clients' current business or investment strategy fare in each future?

How well do our current advisory/or structuring processes consider gender and climate together? What specific gender and climate targets are built into our tools and impact measurement processes?

How well will our team be able to pivot and tailor support in any of these scenarios? Do we foresee needing to increase technical assistance with portfolio companies?

What other capacity and knowledge gaps do we foresee, and how might we prepare for them today?

What research might we undertake or commission today to develop a better understanding of the investment tools needed to meet these future challenges?

What are the most important actions and initiatives needed now to access the desirable elements of each future, or to mitigate its climate-related and social risks and take advantage of opportunities?

› What can be done at a local, industry, sectoral or national scale? What capacity or skill gaps, resources or infrastructure exist?

› How can investors collectively encourage policy change to access the most desirable aspects of this future? What collective action might be needed to uncover new opportunities for impact?

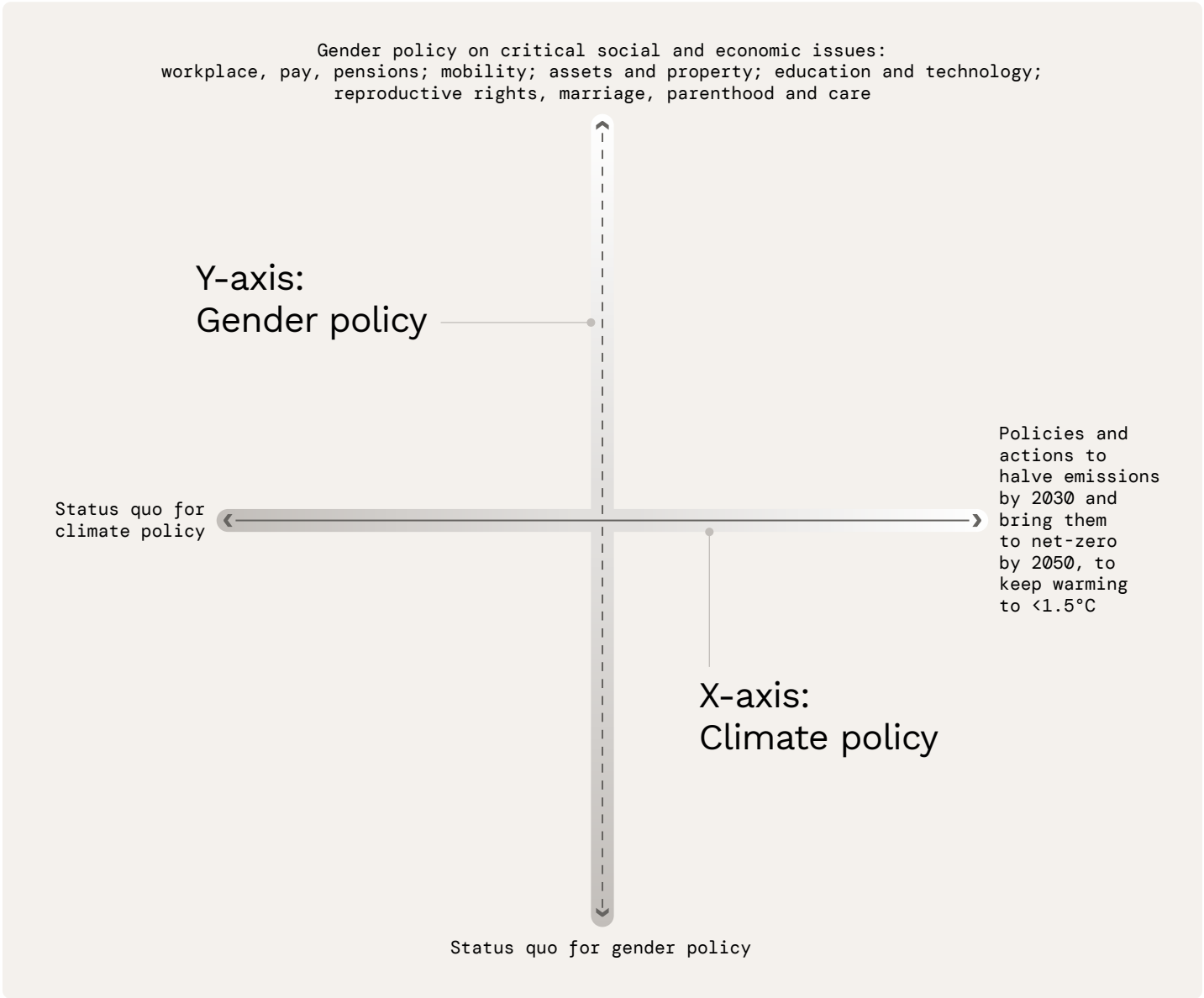
› Which other stakeholders do we need to start collaborating with for meaningful action at scale?

What key ingredients – such as regulatory certainty, granularity of data, or more direct contact with local organisations and stakeholders – will help us to accomplish your objectives?

Annex 1:
About the axes

Each of these axes represents a critical area of uncertainty, on a continuum from no/ineffective action/change to significant, positive action/change. Their intersection produces distinct enough worlds or outcomes for investors to think about the risks and opportunities of each future state. Here, the most relevant axes are climate policy and gender policy: how deep and widespread are these changes, and how fast do they occur?

Notably, underlying power dynamics and structural inequities inform the futures of **both** climate and gender.



Y-axis: Gender policy

Gender policy includes those policies specifically designed to advance gender inclusion and equity, as well as a gender lens applied to other policies to drive equitable outcomes. This axis describes the degree of action and legal or regulatory certainty established by gender policy in critical equality areas, from status-quo to policies resulting in inclusion and equity for all.[16]

This axis also encompasses the speed of social change: when a country enacts gender policies, it may do so as a reflection of shifts in underlying social and cultural norms. Or it may nudge those shifts along. The enactment of gender policy can send an important signal to markets and companies to change their practices. (For an in-depth discussion of key uncertainties in gender and climate policy, see Annex 2.)

GENDER POLICY: KEY ASPECTS OF THIS AXIS

- The speed and direction of **change in social norms, and access to rights** via the legal expression of those norms
  - Examples of recent legal shifts in 2021-22 include the equal right to open a bank account (Gabon), to apply for a passport (Cyprus and Oman), or to work at night (Pakistan and Bahrain).
  - In many geographies, access to rights can hinge on the prevailing political climate; change in any direction can take place very rapidly and almost overnight, with legal rights reduced or expanded by a single political decision. For instance, in June 2022 the United States Supreme Court overturned *Roe v. Wade*, which gave women across the entire country the right to choose to have an abortion; this had a cascade of impacts on abortion laws in many states.
  - Equally, the pace of change can be very slow.

- The speed and degree of **open access to and usage of** technology, data and information
  - The democratisation of data access and usage by citizens and communities has the potential to further catalyse equality as well as climate solutions.
  - While it frequently replicates existing power dynamics, access to data, information and communication technology **can potentially** increase representation and understanding of different identities and experiences; enable people to coordinate and organise political action; and support economic empowerment.
- The impact of **demographic change** on equality, justice, and other values
  - Some specific demographics (such as Gen Z or women investors) are tapped as having the potential for significant impact on climate action, gender equality and investment, but the degree to which this occurs in practice is uncertain.
  - A small advance in gender equality has the potential to snowball due to the compounding effect of women's leadership: around the world, women have been shown to have more gender-equal views than men in the same age group.

X-axis: Climate policy

Climate policy, for these futures, encompasses the scale and speed of action to curb emissions in the highest-emitting economic sectors, such as energy, buildings and cities, heavy industry and manufacturing, agriculture, and transport. We also include curbing emissions via nature-based solutions.

CLIMATE POLICY: KEY ASPECTS OF THIS AXIS

- Who takes the lead in driving climate policy? The role of the public and private sectors in:
  - Driving scope and speed of national policies and regulations that create regulatory certainty and incentivise corporates and citizens to act or change their behaviour.
  - Extent of climate and societal responsibilities borne by public institutions, governments, both, or neither.
  - Degree of public-private collaboration.

- The speed and scale at which private-sector behaviour and operating models change to address climate change
  - The extent to which regulatory environments and clients and consumers' expectations and behaviour drive this change.
  - The extent to which this shift transforms business models, e.g. a shift from linear to circular business models, and the degree to which this shift is global.
- How fast will climate technologies and solutions for mitigation and adaptation be developed, adopted and implemented? Uncertainties, which may vary by solution, sector and geography, include:
  - The speed and scale at which investment flows into climate solutions and technologies in sectors, such as electricity generation, manufacturing, transport, water and land-use.
  - The speed and scale at which investment in climate solutions and technologies results in new innovations and interventions that curb emissions, mitigate climate change, and/or support adaptation.
  - The speed and scale with which climate technologies and solutions are adopted and implemented.

Annex 2:
Key climate and gender policy uncertainties

About gender policy

For the purpose of our four futures, gender policies include the following policy areas and their general effects on economies and implications for investment. The following policy areas are drawn from the World Bank's Women, Business and the Law report as well as the targets and indicators under UN Sustainable Development Goal 5, to achieve gender equality and empower all women and girls. They refer predominantly to government policies, but can also encompass voluntary corporate policies:

Policy area	Policy and practice impacts	General implications for investment
Workplace and pay: the right of women to get a job in the same way and in the same fields as men, as well as policy on equal pay and promotion, sexual harassment, gender-based violence, gender-based discrimination.	Higher overall lifetime earnings for women, leading to greater wealth, consumer and investor power. A deeper, broader skills pool, potentially addressing skills crunches and shortages in many industries. Better innovation outcomes for business and society.	Gender balance in workforce, leadership and on boards (including in major financial institutions and policy roles) contributes to improved governance, innovation and returns. Businesses experience an increased short-term cost-base for business due to equal pay legislation, but this is offset by increased access to and retention of talent and a deeper labour pool (important in ageing and youth-driven economies), better product/service innovation, greater consumer spending power, and positive fiscal impact (lower social spending, broader taxpayer base).
Assets and property: the equal rights to ownership of land and other immovable property, and inheritance from parents or spouses.	As women's equal rights to assets and land increase, practices shift so women have more agency over what is done with their land and assets, and ability to borrow with that collateral.	Sectoral investment opportunities may arise from having a wider pool of property owners, borrowers and customers who can use property as collateral, and productive farmers who would invest to improve assets they own. These investment opportunities may be found particularly in agri-food productivity and solutions; carbon storage and energy; real estate and infrastructure but could span any area of entrepreneurship where collateral matters.

Policy area	Policy and practice impacts	General implications for investment
Access to skills and education: the equal right to obtain training and education of the same quality, including continuing education; to obtain scholarships and other funding for education; to participate in physical education and sports.	A rise in the proportion of women in the education system and in vocational/third level training. Deepening and widening skills and knowledge applicable in many industries.	Addressing the green economy skills shortage can accelerate and scale innovation, including in climate solutions and adoption of new products and services. Educating and upskilling women can lead to higher educational attainment levels, leading to opportunity for more gender-balanced workforces and decision-making and economic and political stability of countries and markets. Data shows that there is a high correlation of CEOs to those who played sports and led sports teams in school. As investors look for pattern recognition in talent, this can be a relevant indicator.[17]
Access to technology: the equal right and ability to access, have knowledge of, and use of digital infrastructure and technology.	Deeper, broader skills pool, addressing skills shortages, including the skills needed for the transition to a green economy. Greater access to and use of digital platforms by women, lessening the digital skills gap between women and men.	Addressing the general digital skills gap can accelerate and scale innovation, including in climate solutions. Sectoral investment opportunities arise as women's use of digital technologies and services grows: these include digital technologies, services and platforms, new business models and investment opportunities in education and training. Greater access to and use of fintech and tech-enabled climate-smart solutions by women shifts the landscape of purchaser behaviour and access to finance.

Policy area	Policy and practice impacts	General implications for investment
Access to finance and entrepreneurship: Equal access to bank accounts and credit, including through digital means; the ability to sign contracts and register businesses in the same way as men.	Boost to innovation and economic growth from women-owned and women-founded businesses.	Larger pool of investable opportunities overall as women-owned climate-smart start-ups add to the pool. Women's increased access to formal finance and credit fosters economic growth and stability in the banking system, and shifts the landscape of investment behaviour.
Marriage, reproductive rights, parenting, and care: The equal legal right to be head of a household, to choose to marry, divorce and remarry, and protection from domestic violence; the legal ability to decide whether and when to have a child; to obtain educational information on health and family planning; access to paid parental leave and protection from pregnancy-based discrimination; access to affordable childcare; policies and practices encouraging men to take on an equal share of unpaid care and domestic work; and other policies and practices that support carers.	Deepening labour markets; new models for child, vulnerable and elder care (care economy). Mental and physical well-being.	More women in the workforce means a deeper labour pool, greater consumer spending power, potentially lower social spending and a broader taxpayer base. New business models/ investment opportunities in care-economy and healthcare solutions; greater formalisation of care economy. More women in entrepreneurship and investment management when healthcare and other social needs are solved for.
Mobility: the equal legal rights to choose where to live, move around outside the home and travel outside the country.	Potentially larger pool of workers and consumers as well as entrepreneurs.	Deeper labour pool for some types of employment throughout value chains; more growth-oriented entrepreneurship, greater access by women consumers to spend outside the home.
Pensions: a pension system fit for purpose, including the age at which men and women can retire, with full or partial benefits, accounting for periods of absence due to caregiving.	Increased purchasing power for women (as they live longer and make up a larger segment of older populations); silver economy consumption opportunities.	Greater consumer spending power Women's ownership and investment of pensions and retirement funds changes the landscape of investment behaviour. New business models and investment opportunities in the silver economy.

About climate policy

The following are policy areas found in this axis, and while these refer predominantly to government policies, they can also encompass voluntary corporate policies:

Sector (corresponding percentage of global direct carbon emissions)	Policies	General implications for investment
Energy/ electricity (22%)	Energy efficiency regulation; carbon taxes and/or pricing; emissions targets or caps; phase-out of fossil fuel subsidies; investment in renewable energy and green electricity infrastructure; access to affordable renewable energy and energy saving devices.	Regulatory incentives drive investment into energy-efficient technologies, renewable energy, energy storage, and electricity infrastructure. More rapid growth of emerging renewable energy and storage solutions such as green hydrogen.
Buildings and cities (6%)	Green criteria in public procurement; green building codes and standards; green (climate mitigation and adaptation) criteria in infrastructure planning; energy efficiency and renewable energy regulation and incentives.	More rapid growth of green building technologies, services, materials, methods and industry.
Heavy industry and manufacturing (24%)	Energy efficiency regulation; carbon pricing; emissions targets or caps; phase-out fossil fuel subsidies; investment in research and development for circular and energy-efficient industrial processes, tax credits and financing for green manufacturing transitions.	Regulatory incentives drive investment in renewable energy and energy-efficient technologies. Government investment de-risks and catalyses private sector investment in deep tech start-ups with disruptive potential. Growth of circular economy business opportunities.

Sector (corresponding percentage of global direct carbon emissions)	Policies	General implications for investment
Agriculture, forestry, and other land use (22%)	Reforming policies and revising incentives to shift agriculture towards lower emissions, regenerative farming practices, and more climate-resilient crops and methods; investment in research and development to lower emissions, increase productivity and reduce food waste; integrate agriculture into national/ sub-national climate mitigation strategy; growth of climate-smart agriculture to better adapt to and mitigate the effects of natural disasters such as floods and droughts.	Growth of food tech, agricultural innovation, and circular food-economy business opportunities.
Transport (15%)	Phase-out of fossil fuel subsidies; investment in renewable energy and electric vehicle infrastructure; investment in research and development of zero-emissions fuels; investment in accessible, low-carbon public transit infrastructure.	Regulatory incentives drive investment into and adoption of low-carbon mobility and transport solutions.
Nature-based solutions	Integrate landscape conservation, restoration and nature-based solutions into national/sub-national climate mitigation strategy; harmonise or reform land-use policies to address deforestation; include green criteria in public procurement.	Growth of carbon markets based on forests and nature-based solutions.

Annex 3A:
Description of Future A

A Slow and uncoordinated policies lead to accelerated environmental and social collapse

The summer of 2043 is a difficult one. Since the world surpassed a 1.5°C rise in global average temperatures back in 2028, each year has brought a greater onslaught of storms, heatwaves, droughts, flooding, and ocean warming and acidification. As coral reefs die off, fisheries decline; as summer heat becomes unbearable and pollinators vanish, agricultural productivity plummets.

Meanwhile, Russian and Chinese container ships are traversing the ice-free Arctic all year as they have since 2039, bypassing the Suez Canal and the Strait of Malacca. Traditional port cities like Los Angeles, Hong Kong and Singapore see less traffic each year. Some shipping companies remain cautious, however, fearful of being caught in unpredictable early-winter storms.

Rising demand for seasonal heating and cooling increases the need for energy and electricity. This winter, as in most of the past two decades, communities caught between food security and energy poverty will have to choose between eating enough and staying warm.

Older buildings and transport infrastructure, designed for the weather of the past, cannot withstand the current climate. Many small islands and coastal cities are not yet completely uninhabitable, but homes and commercial buildings there are uninsurable as sea level rise and storm surges combine to inundate the coastline. In drier areas where droughts and heatwaves combine, wildfire risk has expanded.

Image by BLM Idaho

Countries and businesses scramble for water, energy, and other materials – resulting in geopolitical friction, trade wars, and outright conflict. Supply chain disruptions are frequent. Businesses respond to these risks and disruptions in various ways, such as diversifying their energy generation with renewables, moving production locations, altering their inputs, and even changing their business models.

Countries and businesses scramble for water, energy, and other materials – resulting in *geopolitical friction*, *trade wars*, and *outright conflict*.

At the same time, women around the world, particularly in poor and rural areas, face greater barriers to action and empowerment than ever. Unequal access to education, skills, property rights, health and primary care, and finance in particular, perpetuate and deepen existing inequalities, resulting in impacts on human lives and quality of lives. Climate impacts can further disempower women and destabilise their livelihoods: girls and women are disproportionately affected by energy poverty, loss of access to education and training, and water and food scarcity. The rise of infectious disease and chronic illness due to pollution and other climate impacts also places a burden on all women, decreasing their life expectancy, increasing child and maternal mortality, and reducing their earning power. And all these factors also increase the exposure of girls and women to gender-based violence.[18]

Most economies fall far short of the innovation, skill sets and training needed to thrive in healthy, climate-resilient ways.

HOW DID WE GET HERE?

- For the last two decades, climate action has been patchy, uncoordinated, and insufficient. Fossil fuels provide the bulk of the world's energy.
- A combination of economic instability, falling social trust, rapidly rising food and resource costs, and climate- and conflict-driven migration boosts support for populist, conservative governments which impose tighter social controls in the name of stability. These governments roll back freedoms and benefits, such as sexual and reproductive rights, social spending on family and parenting, and the right to live free from discrimination based on gender or orientation.
- Women's limited access to resources, restricted rights, limited mobility and absence from decision-making make them highly vulnerable to climate change.
- Together, gender inequality and climate change lead to an under-supply of skilled labour for some jobs and industries. The drop in government spending on social support, such as healthcare, education, and childcare will also be felt most by women in poorer nations.
- Climate impacts and social inequality interact with and exacerbate each other: for example, people move away from areas with prolonged droughts, longer wildfire seasons and other severe climate impacts and infrastructure investments costs are higher due to these climate effects.

Taken together, these impacts deepen supply chain challenges due to labour shortages and agricultural failures, destabilise societies and put a heavy financial burden on economies.

Image by Kompas/Hendra A Setyawan / World Meteorological Organization

Annex 3B:
Description of Future B

B Gender policy comes first, while climate policy and action fail to scale

The year is 2043. At last year's COP47, governments once again failed to reach consensus on what should be done about climate change, but no one is surprised. There is a global shortage of large-scale renewable energy, green hydrogen, and carbon capture and storage (CCS) technologies and sites – due to a lack of financial incentives, these solutions received too little investment and fewer facilities were built in the last decade than are needed today.

How did we get here? Over the past two decades, people in many countries – particularly smaller nations – lost trust in the world's ability to mitigate or adapt to global climate change. Localised climate adaptation policy and action continued, but to stay competitive, most countries connected to the global economy kept up their business-as-usual use of fossil fuels.

Conversely, the late 2020s and early 2030s were a boom time for the expansion of gender equality, as voters focused on the issues that felt most personal to them and as a wave of feminist successes like the #MeToo movement galvanised activists around the world to lobby for expanded rights for women. Meanwhile, ageing industries and economies began to view women's untapped labour and skills as a key source of resilience. In each local context, gender policies were enacted and implemented, from reproductive rights to equal representation, access to finance and education, and even quotas for women in management at public companies and government agencies.

These measures sent a stable policy signal to the private sector and to citizens. Since then, investors and companies have benefited from a range of new opportunities for women's entrepreneurship, leadership, employment and consumption patterns.

However, without global political will to coordinate and implement climate policies, average temperatures have risen by over 1.5°C, reshaping food and agricultural production, manufacturing and other economic activity around the globe. Some areas have become unliveable due to droughts, wildfires, extreme temperatures or rising sea levels, necessitating dramatic shifts. For instance, most economic activity moved out of Kolkata in 2034, when its first woman mayor, Subhamita Chatterjee, greenlighted and secured business funding for a planned relocation of companies and citizens to Darjeeling and other West Bengal towns.

> Despite the presence of gendered social policies, *other forms of inequality remain*; society's poorest, as well as members of minority and other disadvantaged groups, are most vulnerable to *climate impacts* and climate-linked *cost-of-living crises*.

Moreover, despite the presence of gendered social policies, other forms of inequality remain; society's poorest, as well as members of minority and other disadvantaged groups, are most vulnerable to climate impacts and climate-linked cost-of-living crises. While many governments have now put in place social policies for climate adaptation, continued exposure to climate impacts means that the costs of resilience and emergency recovery add up for governments and businesses.

Annex 3C:
Description of Future C

C Climate policy prioritised over gender policy, with unequal, unstable outcomes

'Mission Accomplished', crow this week's headlines from COP48 in Busan, South Korea. Thanks to a combination of climate mitigation and carbon removal, the world is well on track to avert the worst impacts of climate change.

How did we get here? Society prioritised climate change as the most important challenge of our time. In 2025, the world reached an agreement to coordinate and collectively fund global climate action. We halted new fossil fuel expansion and rapidly phased out existing fossil fuel extraction. Many of our investments in research, education and climate technology, such as carbon capture, storage and usage (CCS), have come to fruition today. Our coordinated climate policies, rapid technological progress and competitive markets have fuelled advances in technologies such as lab-grown protein, the Internet of Things, and materials and business models for the circular economy. Indeed, climate solutions have been a key driver of economic growth for the last decade.

The ready availability of such technologies and solutions, combined with a growing global economy, means early-21st-century patterns of consumption and extraction continue, but with lower net emissions. Local environmental issues such as air pollution are successfully managed. Data analytics and machine learning facilitate measurement and monitoring of climate mitigation, adaptation and carbon removal. Given patterns of technological advancement, people trust that ecological systems can be effectively managed with innovation and technology, including by geo-engineering if needed.

These climate measures and technologies, however, are largely decided, designed, and developed in an unequal world, as most societies prioritised addressing climate change over tackling gender and other social inequalities. The persistence of systemic gender and other social inequality dampens productivity and GDP growth, even in the face of rapid and widespread climate mitigation. In some cases, it destabilises societies, fuels the election of populist or protectionist leaders and creates an unstable environment for business.

> The persistence of systemic gender and other social inequality *dampens productivity and GDP growth*, even in the face of rapid and widespread climate mitigation.

High economic and social inequality remains within countries and between advanced and developing economies, with little incentive to change conditions for labour, frontline service workers and other disadvantaged groups. To some extent, developing countries rich in the minerals and resources necessary for a green economy are disproportionately exploited. Even though the problem of greenhouse gas emissions has been 'solved', other kinds of pollution and biodiversity loss persist.

In the climate sphere, systemic inequality means many essential perspectives are left out of climate adaptation decisions, leading to poorer decision-making. Due to a persistent lack of gendered social policies and practices, such as equal access to education and training, technology, care-economy policies and property rights, girls and women are not able to participate fully in the net-zero economy or fully benefit from the availability of digital technologies. Because measures such as education are a key part of climate adaptation and resilience, progress remains tenuous on climate adaptation, resilience and the just transition.

Annex 3D:
Description of Future D

D Coordinated climate and gender policies lead to scalable, inclusive action

By 2043, the world has surpassed 1.5°C of temperature rise but remains on track for net-zero emissions in the next few years. Over the last two decades, coordinated climate policy and action by governments, central banks and public sector financial institutions catalysed and accelerated private sector investment in climate solutions. Part of that global climate investment involved expanding access to skills, education, and training for all, particularly expanding girls' education – since the world needed and still needs as much talent and labour as possible to transition to a zero-carbon, climate-resilient economy.

Over time, that led to more diverse and balanced leadership in public institutions, finance and other sectors, which produced an increase in and greater stability of policy with gender-equality outcomes, such as addressing reproductive health, childcare deserts, time poverty, property rights, technology access, and other needs. Today, the global economy benefits from a wide range of creative climate solutions that combine indigenous knowledge, gendered perspectives and other diverse expertise with scientific methods and technological tools.

Most national and regional governments have implemented forms of carbon pricing, such as carbon taxes or cap-and-trade initiatives. In tandem, financial regulators, banks, and ratings agencies have refined and harmonised reporting standards for greenhouse gas emissions, nature-related risks and actions, and social and governance criteria, which signals publicly-listed companies and investors to act. Frameworks for new forms of value have been developed and adopted, prompting further action from private-sector companies.

Data analytics and machine learning facilitate measurement and monitoring of sustainability activity and implementation of standards. In a positive feedback loop, the increased availability of data and frameworks for measuring the impacts of diversity and equality help private finance further build the business case for investing with gender and justice lenses. Enabled by better data and new models of value, international lenders such as the IMF and World Bank, as well as regional development banks and development finance institutions, have increasingly incorporated climate and gender into their lending criteria and made the connection between the two.

> Today, the global economy benefits from a wide range of *creative climate solutions* that combine *indigenous knowledge*, *gendered perspectives* and other diverse expertise with *scientific methods and technological tools*.

Some climate adaptation needs persist: many emerging economies still need help to shore up their infrastructure, protect biodiversity, and manage their freshwater resources. Meeting these needs costs between USD$210-400 billion a year, but the public and private sectors readily fund adaptation because doing so has multiplier benefits, even if it means the economy grows at a somewhat slower rate.

Finally, the global economy has organically adjusted to what was previously called 'degrowth'. As women's education and reproductive choices expanded, the rate of global population growth has slowed, and looks set to peak in 2058. With a slower-growing population that values a just allocation of resources, new investment models are developed and impact investment becomes part of the mainstream.

Endnotes

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16. Of note: while this axis does not necessarily encompass the intersection of gender with other identities, greater attention to intersectionality and justice can accelerate the attainment of equitable outcomes. In other words, the potential impacts of intersectional inclusion may be under-rated. When we say "women" we would ask that people read these futures to consider women, implied is white women and women of colour, and gender non-binary.
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