

#women4climate

DaringCircles Women & Climate

by the Women's Forum for the Economy & Society





Foreword from Chiara Corazza

As part of the Women's Forum community, I meet many people who are passionate about empowering women, and many who are equally passionate about preserving our planet. The mission of the Women & Climate Daring Circle is to combine these two goals. To create a sustainable world, women and men must be equal partners in the fight.

We know that women are disproportionately impacted by climate change: 80% of those who are displaced by climate change are women, and women are 14 times more likely to die than men during climate-related disasters. But our focus should not be on women as victims of climate change; rather on how they can be leaders, designers and implementers of solutions and how we all can take action that enables them to fulfil those roles.

This report uses a scenario-led approach to examine the intersections between climate change and women's empowerment. Along with the Charter for Engagement on Women Leading Climate Action – launched in Kyoto this year on the eve of the G20 – and the Catalogue of Initiatives, which highlights replicable and scalable best-practices that address gender and climate, it demonstrates that the Women's Forum and the Women & Climate Daring Circle are committed to advancing understanding and action for a gendered response to our current climate emergency.

Organisations led by women tend to think in a more long-term way and perform better against a wide range of sustainability measures. Gender diverse teams are more innovative, and we need innovation to succeed in combatting climate change. Within communities, women are often the first to take up new sustainable practices and share benefits with others. The transition to a sustainable and green economy will create extensive job

opportunities that capitalise on women's skillsets and mindsets.

The four possible worlds that emerged through the work of the Daring Circle emphasise the interconnectedness of gender equality and climate stability. To meet the ambitious targets of the Paris Agreement and Sustainable Development Goals we urgently need more women in the fight. We need to mainstream a gendered approach to climate change.

Climate change is an issue which affects us all, and addressing it will require more cooperation than competition. I am proud that we are have raised the nexus of climate and women to the attention of businesses and other organisations, calling on them to contribute collectively to solutions. If we give women the tools to take action, especially by ensuring they are at the table wherever climate strategies and responses are designed; from global, to national, to corporate, to local, there is a tremendous opportunity for impact and to ensure the wellbeing of future generations. This is something that we all as individuals can commit to support.

I would like to thank all our partners and contributors to this paper for their expertise, and commitment. I hope that others will join the growing cohort of daring organisations and individuals who are committed to creating a world that is sustainable and inclusive.



CHIARA CORAZZA

Managing Director

Women's Forum

for the Economy and Society

Contents

02	Foreword	
04	About the Women & Climate Daring Circle	
07	Where are we now?	
09	The case for a gendered approach to climate change mitigation and adaptation	
09 13	Starting from here and now Key imperatives of a gendered approach to climate change	
20	Four futures	
23	Four plausible worlds at the nexus of women and climate	

25 26 27	Stable but unequal Unstable but equal Sustainable and equal	
29	What if? Scenarios, a tool to alter current trajectories	
30	The path towards	
	a sustainable and equal world	
35	a sustainable and equal world A world within reach, imagined	
35 36		



Join the growing cohort of daring organisations and individuals who are merging gender and climate agendas to drive success in this most urgent of challenges – to create a sustainable and equal world.

About the Women & ClimateDaring Circle

This report is produced by the Women & Climate Daring Circle of the Women's Forum for the Economy & Society.

The Women's Forum for the Economy & Society is a global platform of actions to highlight women's voices and build together a more inclusive economy. With the Daring Circles, the Women's Forum's ambition is to drive innovative solutions at scale and at pace through collaboration between businesses, public entities, NGOs and the media to have impact on issues where women are disproportionately affected and where their leadership is most urgently needed. The Women's Forum for the Economy & Society is a Publicis Groupe company.

The Women & Climate Daring Circle is led by BNP Paribas and L'Oréal. The Daring Circle's Strategic Member is Microsoft, in collaboration with Engie as Global Partner. The Circle is supported by Knowledge Partners KPMG in association with EcoAct; R20, C40 and as Institutional Partners; and HEC as Academic Partners.

The Women & Climate Daring Circle seeks to identify the levers and initiatives needed to accelerate the transition to a green economy and harness it for women's empowerment, enable women to lead actions against climate change, and address the disproportionate impact that climate change has on women.

The action agenda of the Daring Circle

Research, using a scenario-led approach to examine the various intersections between climate change and women's empowerment, to plot a pathway to a future that is both sustainable and equal and identify key levers that support progress towards that future.

Recommendations & action, through the Charter and cataloguing of gender responsive climate initiatives. By cataloguing initiatives, the Circle will provide recommendations to governments and corporates on how to support, initiate, replicate and scale gender responsive climate initiatives. The Charter for Engagement on Women Leading Climate Action calls on governments, businesses and individuals to work together to drive inclusive climate action at scale.

Communications through the promotion of the Charter and publication of the Circle's research, to raise awareness of the intersection between gender and climate and advocate for a gendered approach to climate action by corporates and public institutions. Raising awareness of scalable and replicable solutions that can be quickly adopted to advance action.

The Daring Circle seeks further collaborators to help advance our next stage of research, action and advocacy for the next year and beyond.

Suggested citation:

Women & Climate Daring Circle (2019)

'Women leading climate action: A world within reach'
Women's Forum for the Economy & Society



by the Women's Forum for the Economy & Society



Our focus should not be on women as victims of climate change; rather on how they can be leaders, designers and implementers of solutions and how we all can take action that enables them to fulfil those roles.

Where are we now?

"It is worse, much worse, than you think," writes David Wallace Wells in his New York Times bestseller, The Uninhabitable Earth. Climate change is happening unnervingly fast and we have given ourselves less and less time to take action to mitigate or adapt to the worst of its effects. This much we know.

"I want you to act as if the house was in fire," Greta Thunberg told delegates at Davos in January 2019, "because it is."

However, large-scale climate action, though still not enough, is being taken:

- In 2012, China announced its plan to produce 1000Gws of wind power by 2050; approximately equal to replacing the entire US electric infrastructure with wind turbines. The price of solar panel production, largely thanks to Chinese investment. has fallen 86% since 2009.
- More than 100 major global corporates have committed to science-based targets.²
- Global climate strikes, led by a new generation, are putting more pressure than ever before on politicians and businesses to take action.

"I raise up my voice—not so I can shout, but so that those without a voice can be heard...we cannot succeed when half of us are held back." Malala Yousafzai told the United Nations on her 16th birthday in 2013. No country in the world is on track to achieve gender equality by 2030 ³ and, at current rates, it will take centuries to achieve it globally.

Similarly, progress towards gender equality, although still inadequate, is being made:

- Girls and boys have equal access to primary education in almost all countries
- There are 44% fewer maternal deaths than in 1990.
- In 1998 there was just one female CEO leading a Fortune 500 company: today there are 33.

To help catalyse change and rise to these two enormous challenges, the Women's Forum Daring Circle on Women & Climate explores how we can accelerate the transition to a green economy by empowering women and equally how women's empowerment (with all the known social and economic benefits it brings) can be ignited by participation in the creation of new climate compatible economies, societies and technologies. Understanding the complex ways in which women and climate change interact is essential to building sufficiently robust solutions at scale and quickly.



^{1.} Lazard (2017) 'Levelized Cost of Energy Analysis'

 $^{2. \} Alberto \ Carrillo \ Pineda \ (2018) \ From \ commitment \ to \ action: Science \ based \ targets \ momentum \ continues \ with \ 100 \ approved \ targets', Science \ Based \ Targets$

^{3.} Equal Measures 2030 (2019) 'Harnessing the power of data for gender equality: Introducing the 2019 EM2030 SDG Gender Index



Big problems call for big ambitions for change. We ¬-individuals, communities, companies and policy-makers – have an opportunity to reframe our world to deliver more equality, more sustainable growth and a more sustainable future for our planet.

"Radical collaboration" (to borrow Christiana Figueres' phrase) between business, NGOs, universities, governments, communities and individuals that acknowledges the interdependencies between climate change and women's empowerment presents us with a huge opportunity to reshape our future. The Charter for Engagement on Women leading climate action, released in June 2019 at the occurrence of the G20 meeting in Kyoto, Japan, recognises and emphasises this need.

This document presents the research of the Women & Climate Daring Circle, conducted over the past year to assist organisations in taking action at the intersections between gender and climate change. It draws upon the additional research that informed the Charter for Engagement on Women Leading Climate Action and the Catalogue of Initiatives also produced by the Women & Climate Daring Circle and discussed throughout this document.

The scenario approach allows us to consider multiple possible futures in the face of uncertainty regarding our current trajectory. Understanding the implications of different futures helps us to identify those actions with the greatest potential for impact. Among the plethora of available options, the scenario approach helps us push towards those that are the most likely to result in a sustainable and equal world and create plans to mitigate against the worst characteristics of other possible futures. These implications can inform the action of public authorities, private sector organisations, civil society and individuals.

In this report, we present an overview of the current state of climate action and women's empowerment, illustrating how they are interconnected and the imperatives for a gendered approach to climate action. We then explore four possible futures, determined by the extent to which we advance women's empowerment and scale climate action. This paper concludes by discussing how organisations can utilise these scenarios and take concrete action to set us on a path towards a sustainable and equal world.

The case for a gendered approach to climate change mitigation and adaptation

STARTING FROM HERE AND NOW

Climate change

We sit at an unprecedented and vital moment where our actions in the next 11 years will determine the nature and stability of the world that all future generations will inhabit. More striking examples emerge each day of climate change's impact on the world's ecosystems and the people that depend on them.

During the summer of 2017, three major hurricanes arose in quick succession in the Atlantic. Hurricane Harvey dropped almost a million gallons of water in Houston for every person living in the state of Texas. Nine thousand wildfires destroyed over a million acres of land in California. Floods in South Asia affected more than 41 million people, displacing many from their homes.⁴

In April 2019, Cyclone Idai was followed, in the space of less than six weeks, by Cyclone Kenneth. Coastal flooding and torrential rain devastated Madagascar, destroying homes and crops while displacing 1.5 million children. Idai is the strongest cyclone on record in the Southern Hemisphere.

Climate change will have dramatic effects upon all aspects of our economies and societies including where we live and our ability to produce enough food to feed ourselves. A new report published by CDP shows that 215 of the world's biggest companies see climate change as a threat likely to affect their business within the next five years, with a cumulative cost of a trillion dollars.⁵

Global sea levels have risen eight inches (20cms) since reliable records began in 1880, for example. They are projected to rise between one (30.5cms) and four feet (122cms) by 2100. What we now know is that climate change is not linear: there are sudden jumps in critical changes such as sea water salination levels and atmospheric methane that are happening much faster than even recent predictions. Feedback loops can create exponential increases in damaging effects.

Time is running out.

Many of the world's governments, companies and societies are currently trying to rethink their policies, business models, and ways of living and working in an effort to keep global warming below the 1.5° C limit set in the Paris Agreement. However, at current rates, we are unlikely to meet this target. Given the likely damaging and destabilizing consequences of a $+2^{\circ}$ C or 3° C rise, further, faster action and a greater diversity of approaches are needed if these risks are to be averted and the impacts that are already 'locked in' mitigated.



According to the IPCC, without rapid and comprehensive transformation of our societies and business models, we are on track

for ~3 C of global warming.



20 of the hottest recorded years on earth have occurred in the past 22 years.



Estimates for global climate finance flows in 2017 range from approximately USD 510 billion to USD 530 billion.

a 12% - 16% increase on 2016.



Just 9% of the 92.8 billion tonnes of minerals, fossil fuels, metals and biomass that enter the economy are re-used annually.

4. Ferand, C. (2017) «At least 41 million people affected in floods in India, Bangladesh and Nepal, UN says», The Independent. [Accessed, October 12th 2019] 5. CDP (2019) "World's biggest companies face \$1 trillion in climate change risks" [Accessed here, September 4th 2019]



60% of chronically hungry people are women and girls.



Women make up more than two-thirds of the world's **796 million** illiterate people.



More than half of the countries in the world have never had a female leader.



Only 24.3% of all national parliamentarians were women as of February 2019, a slow increase from 11.3 per cent in 1995.



Women still earn an estimated 23% less than men, and it is estimated that it will take 108 years to close the pay gap.

Women's empowerment

According to the World Economic Forum's 2018 Gender Gap Report, projecting current trends into the future, the overall global gender gap will close in 108 years in the 106 countries covered since the first edition of the report in 2006.⁶ Across the four sub-indexes of the Gender Gap Report, on average, the largest gender disparity is in Political Empowerment, which today maintains a gap of 77.1%. Women still earn an estimated 23% less than men and it will take 202 years to close the economic opportunity and participation gender gap, overall.⁷

Women face disproportionate barriers to financial inclusion across the world. The World Bank estimates that about 37% of all SMEs (small and medium-sized enterprises) are women-owned. These businesses have unmet financial needs of US\$260 billion and US\$320 billion per year.⁸ Women comprise more of the unbanked than men and in some parts of the world even when women do have financial access, authority rests with a male family member.

«On virtually every global measure, women are more economically excluded than men,» says the World Bank's Gender at Work report (2014).

Women continue to have unequal and insecure rights to land and property while agricultural work remains the top employment sector for women in many countries (70% in South Asia, 60% in sub-Saharan Africa).⁹ One quarter of all economically active women work in agriculture but comprise only 13% of agricultural landholders.¹⁰

Women in sub-Saharan Africa collectively spend 40 billion hours a year collecting water.¹¹ Imagine the economic and societal impact of redeploying those 40 billion hours in economically productive work?

Although girls and boys now have equal access to primary level education in most countries, women comprise two-thirds of the world's illiterate population. In Cambodia, 48 per cent of rural women are illiterate compared to 14 per cent of rural men. 12

In spite of these depressing statistics, progress towards women's equality and empowerment is undeniable and there is strong commitment from both private and public sectors to continue to advance Goal 5 of the SDGs. However, deeply entrenched social, political and economic equalities persist in both the developed and developing world and we are still many, many years away from eliminating gender inequality.

^{6.} World Economic Forum (2019) 'Global Gender Gap report 2018'

^{7.} World Economic Forum (2018) The Global Gender Gap Report 2018

 $^{8.\,}UNESCO\,(2014)\,Women\,and\,girls'\,education\,-\,Facts\,and\,figures'\,UNESCO.org\,[Accessed\,September\,12th,\,2019]$

 $^{9.\,}UN\,Women\,(2018)\,'Turning\,promises\,into\,action:\,Gender\,equality\,in\,the\,2030\,agenda\,for\,sustainable\,development'$

^{10.} UN Women (2018) 'Turning promises into action: Gender equality in the 2030 agenda for sustainable development'

^{11.} UN Women (2012) 'Commission on the status of women: Facts and figures' UNwomen.org [Accessed Sep12th, 2019] 12. UN Women (2012) 'Commission on the status of women: Facts and figures' UNwomen.org [Accessed Sep 12th, 2019]

The gender and climate nexus

The Charter for Engagement on Women leading climate action outlines five key areas in which women are limited in their ability to lead action on climate, that can be addressed by public authorities, private sector organisations and individuals. These areas outline how inequality amplifies the impact of climate change upon women and excludes their potential participation in finding solutions.

Leadership

Despite playing major roles in many positive achievements in climate action, including the Paris Agreement, women remain underrepresented in politics and at high levels of private organisations. Women represent only 6% of ministerial positions responsible for national energy policies and programmes and 15% of Green Climate Fund Boards. Management science consistently demonstrates that teams and leadership groups with more women are more innovative and achieve more not only in terms of growth, but sustainability outcomes and longevity of commitments.

Education and awareness

Women demonstrate a stronger belief in the need for behavioural changes to reduce the effects of climate change, but persistent education and employment barriers limit women's capacity to lead changes. Many of the industries and skill sets that will drive sustainable growth and enable a green economy, such as the energy industry, are currently male dominated. Only 20-25% of the workforce in the energy sector are women, in part due to lower participation in STEM education.

Access to means of action

Whether it be to finance, energy, legal rights, property ownership, mobility and health or other social and economic capitals, women have less access to the essential tools that enable individuals to fight and build climate resilience. One quarter of economically active women work in agriculture but are only 13% are agricultural landholders. Crops tended by women are under-researched and under-insured, and women lack access to the finance, legal rights and education that would enable them to increase global crop yields by up to 30%.

Data and representation

Women are disproportionately impacted by climate disturbances: currently 80% of people displaced by climate change are women and women are 14 times more likely to die than men during climate-related disasters. Despite this, many national climate action and disaster preparedness plans do not account for the gendered components of climate risk. Lack of gender-disaggregated data prevents gender from being integrated into existing and new climate initiatives.

Scaled and responsive solutions

Engagement in climate action remains fragmented and insufficient to drive action to the scale needed to meet ambitious global targets, with the world currently on track for 3 degrees or more of warming. Even amongst existing action, gender-responsive climate solutions remain underrepresented. For example, only 31% of the OECD's Development Assistance Committee members' bilateral aid to climate change was gender responsive.



The critical role of women in the fight against climate change and of the vital role that climate action will play in supporting, or hindering, further women's empowerment, has yet to become a mainstream consideration of governments and businesses.

The case for a gendered approach to climate change mitigation and adaptation

THE KEY IMPERATIVES OF A GENDERED APPROACH TO CLIMATE CHANGE

The inequalities women face highlight why women are disproportionally impacted by the negative effects of climate change in the first place. "Dire things happen to women whose economic situation is dire to begin with," as Professor Muhammad Yunus says.

In almost all contexts, from rural areas to major cities, in the developing and developed world, climate change has differentiated and disproportionate implications for women. Increased attention is being placed upon this disproportionate impact, as evidenced by the Gender Action Plan for the Paris Agreement released in 2018. But the critical role of women in the fight against climate change, as well as the critical role that climate action will play in supporting, or hindering, further women's empowerment, has yet to become a mainstream consideration of governments and businesses.

Myriad examples exist of women leading action in climate – as activists, leaders, members of households and throughout society. In doing so, they are not only driving climate action, but improving their own lives and the lives of others.

This is the compounded opportunity of bringing women into climate action — to redress their status in society, to leapfrog the slow path out of poverty, injustice or low representation, to unlock their leadership and innovation potential and to build climate change strategies that will succeed at scale and benefit us all, not just women.

The gender-climate nexus is well documented but the requisite policy priorities, strategies and investments need to be much more widely implemented by governments, corporates and citizens.

There are four strong imperatives for a gendered approach to climate change:

1. Climate action that lacks a gendered lens risks maintaining the disproportionate impact of climate change on women and creating new inequalities

Some 80% of people displaced by climate change are estimated to be women, and women are 14 times more likely to die during environmental disasters.¹³ This disproportionate impact is driven by factors such as women's role as carers for others, their lack of access to warning systems and lack of resource independence.

In many parts of the developing world, women comprise the majority of the agricultural workforce and are therefore impacted disproportionately by extreme weather events that wreak crop failure, the death of livestock and the systematic degradation of agricultural land. Women's unequal access to land and property rights, moreover, leaves them especially vulnerable in the event of crop failure, flooding and other climate-related disasters. They lack the resources to rebuild their lives after climate-related events hit and are excluded from taking mitigating actions to lower the impact in the first place. Strains on food production; drought that impacts the availability of water; inadequate fuel all impact women disproportionately.¹⁴

The gender gap isn't limited to rural areas of the world, however. As the flight to the city increases, (2.5 billion extra people are expected to live in urban centres by 2050), 15 so the negative impacts of climate events are magnified due to higher population densities.

^{13.} Aguilar, L. (2004) 'Climate change and disaster mitigation. Gender makes the difference.

^{14.} Aguilar, L. (2004) 'Climate change and disaster mitigation. Gender makes the difference.'

^{15.} UN Department of Economic and Social Affairs (2018) '68% of the world population projected to live in urban areas by 2050, says UN' un.org [Accessed September 9th, 2019]

For cities to avoid not only ever-higher levels of pollution but also traffic gridlock, intelligent public transport systems will have to replace individual vehicles in urban centres across the world. Issues of women's safety, and creating routes that cater to the different, more dispersed travel that many women engage in, will be critical to the universal uptake of new low-carbon public transport infrastructure and in ensuring women aren't negatively impacted by this transition.

This, and other examples, demonstrate the necessity of incorporating gender in adaptation and mitigation strategies. Tailored interventions must be created to address the unequal access that women may have to solutions and to account for the differentiated ways in which women access and use public goods.

A critical way to make this a reality is to ensure that women are involved in all levels of decision-making and at all stages of authority in these efforts. When women are involved in the design of solutions, those solutions are often more innovative and inclusive not only of women but of other disadvantaged and minority groups.

2. Empowering and including women in the implementation of climate change adaptation and mitigation strategies is critical to success

Women are accelerating the adoption of new green technologies in the developing and developed world; leading the climate debate in international fora; catalysing more sustainable business practices in the boardrooms of our largest companies. Women's involvement in both adaptation and mitigation strategies is a proven success factor in numerous settings. 16,17

There are encouraging signs where women take the lead on climate action at a global, corporate and entrepreneurial level. Women mayors from all over the world are uniting to take action on climate change on behalf of their cities at the C40. Women's participation in the C-suite of the world's largest companies has been proven to lead to enhanced financial performance and lower risk.¹⁸ More than a million schoolchildren in 100 countries walked out of their classrooms to demand climate action, spurred on by Greta Thunberg.

Everywhere women are changing the music through entrepreneurship: women like Elizabeth Nyeko, CEO of Modularity Grid, creating technologies that improve the performance of minigrids and small-scale energy generation in poor communities. Evidence from 25 developed and developing countries indicates that countries with higher female parliamentary representation are more likely to set aside protected land areas. ¹⁹ Other studies have demonstrated that women ministers prioritise green investments and policy-making more than their male counterparts. ²⁰

Solar-voltaic panels placed in off-grid, off-road, remote areas are replacing high carbon-emitting kerosene, gas or diesel for lighting. New, clean fuel alternatives are also being developed for heating and cooking. Green electricity can also enable families to connect via mobile telephony, bring the unbanked onto mobile payment platforms and kickstart economic activity for women in the home. Access to quality lighting enables children to study after dusk.

Women, universally in charge of cooking, heating and lighting the home, are the critical pivot for scaled adoption of solar and other green, domestic energy solutions. The millions of women in the agricultural sector, too, are key to the scaling of sustainable agricultural practices and the resilience of our global food supply.

^{16.} Ndiritu, S.W., Kassie, M. and Shiferaw, B., 2014. Are there systematic gender differences in the adoption of sustainable agricultural intensification practices? Evidence from Kenya. Food Policy, 49, pp. 117-127.

^{17.} Bell, S.T., Villado, A.J., Lukasik, M.A., Belau, L. and Briggs, A.L., 2011. Getting specific about demographic diversity variable and team performance relationships: A meta-analysis. Journal of management, 37(3), pp.709-743.

^{18.} International Labour Organisation (2019) The Business Case for Change

^{19.} UN Inter-Agency Task Force on Rural Women (2012) 'Rural Women and the Millennium Development Goals'.

^{20.} OECD (2014), Women, Government and Policy Making in OECD Countries: Fostering Diversity for Inclusive Growth, OECD Publishing

If these solutions are to reach the scale and distribution to truly create sustainable societies, women must have the resources and authority to access them.

Women's potential to lead the climate fight is currently locked away. Pervasive social and economic inequality prevent their participation. We cannot unleash their power against our climate emergency without addressing these inequalities; until women farmers have the same legal rights, access to education and finance as men, until there as many female CEOs and parliamentarians as men.

Governments, NGOs and companies can take supranational action to increase women's access to social, political and economic capital that would have an enormous impact on our climate.

This potential goes beyond direct climate interventions. For example, closing the global financing gap for girl's education, thereby empowering women and girls and leading to smaller family sizes, could draw down projected carbon dioxide emissions by as much as 102.96 gigatons.²¹ This is the single largest drawdown opportunity of over 100 solutions examined by Project Drawdown.

We need only look at the potential of concerted action that unites climate change action with female empowerment, and the inspirational examples of women leading action, to envisage what can be achieved. This is the opportunity.

Women4Climate

Women4Climate, an initiative led by C40, provides mentorship and research on the impact of climate upon women in the context of cities, and of the vital role of women in creating new solutions. The Women4Climate Mentorship Programme matches mayors, city officials and committed leaders from the business sector, international organisations and civil society with emerging women leaders. Mentors share their knowledge and experiences supporting the mentees to become powerful leaders in their chosen field including politics, NGOs, business, media and community groups. L'Oréal supports the C40 initiative.

The Indigenous Youth Network, Brazil

Rayanne Cristine Maximo Franca



"I left my home and community at 17. My family was receiving frequent death threats because my father had spoken out against corruption," says Rayanne Franca, now 25. One of just 35 indigenous students out of some 22,000 at the University of Brasilia, she soon embarked on the pursuit of rights and recognition for young indigenous women.

"Women from the Amazon have been echoing a strong urge to act against fast-tracked consumerist needs that do not respect our lands, our culture, our rights," she says. "The government approves huge business endeavors such as the installation of several hydroelectric stations in the Amazon basin. We –women and girls – are occupying spaces where they want to build, and denounce their illegal mining which is toxifying our bodies with mercury."

The Indigenous Youth Network in Brazil now has links to the UN's Voice of Indigenous Women that represents 105 indigenous communities to ensure their perspectives are included in the national policy agenda.

3. The transition to a greener economy offers significant opportunities for increasing women's empowerment and participation in the global economy

New, green technologies and industries offer developing countries an opportunity to leapfrog the industrialised world, moving directly from an agricultural economy to the 4IR (the fourth industrial revolution) and bypassing less sustainable manufacturing processes that were born in the 18th and 19th centuries. These same technologies and wider transitions offer women across the world an opportunity to leapfrog.

Currently, women represent only around 20% of the energy industry (only marginally more in the renewable energy industry): equal participation would open up access to the estimated 18 million new jobs that renewable energies will create by 2050.²²

Africa is home to more than a quarter of the world's arable land, but manual farming methods have kept productivity low. Smart agriculture (such as the use of drones, satellite data, soil sensors, solar-powered irrigation systems and mobile-enabled communication) can significantly increase productivity and reduce waste of precious water resources and fertilisers.

This wide range of sustainable agricultural methods offers women opportunities to become more productive while halting deforestation, for example, or helping mitigate the crop-killing effects of drought and flood. Studies demonstrate that women conserve resources better than male counterparts and implement climate smart agronomy more quickly.²³ If women farmers had the same access to resources as men, on-farm yields could increase by 20-30%.²⁴

Addressing cultural and economic barriers that prevent women from participating in programmes, and engaging the governments, companies and NGOs that seek to tackle land degradation and deforestation is key. These organisations can intentionally create women-

oriented programmes that spawn new, sustainable livelihoods for millions of women. Leading companies such as Mondelez and L'Oréal are pioneering these approaches.

Women's economic empowerment has many significant benefits. Women as consumers make greener and more sustainable buying choices. They spend more on their children's education and health, benefiting the wider community. This investment in education and family health has a compounding positive effect for whole societies.

By integrating a gender lens into initiatives that build greener solutions, we can build a future that is both sustainable and equitable. Putting opportunities for women at the forefront of these initiatives not only secures whole community buy-in but also makes strides in raising the social and economic status of women.



The impacts of climate change may, together with the exclusion of women from adaptation and mitigation actions, aggravate the various obstacles and socio-economic vulnerabilities that lead to decent work deficits among women

International Labour Organisation (2018) 'The employment impact of change adaptation'



^{22.} International Renewable Energy Agency (2019) Renewable energy: a gender perspective

^{23.} Cook, N., Grillos, T., Andersson, K. (2019) Gender Quotas Increase the Equality and Effectiveness of Climate Policy Interventions. Nature Climate Change, 9. 330-334.

^{24.} Committee on World Food Security (2017) Forty-fourth Session: Making a difference in food security and nutrition". CFS Forum on Women's Empowerment in the Context of Food Security and Nutrition

Frontier Markets Solar Sahelis

Founded in 2011, Frontier Markets is a last-mile distribution company with a mission to create 'Saral Jeevan' or an 'Easy Life' for rural customers by providing them with access to quality clean energy solutions.

Frontier Markets has built a proven and scalable model with a network of 1000 women entrepreneurs that are trained and access technology, marketing, and technical repair, to provide innovative solar solutions to sell to rural households. The women, dubbed Solar Sahelis, have generated \$2 million in income through the sale of products like clean cookstoves, renewable energy appliances and solar home systems. Engie supports the Solar Sahely initiative.

Ajaita Shah, the founder and CEO of Frontier Markets:

"One thing we need to understand about rural customers of rural households is their life is extremely challenging. They don't have access to infrastructure, they don't have access to electricity they don't have access to water, they have health crises," "We found an opportunity to really bring women into the value chain in a way that did not exist before. We also learned that 70 percent of our users were women. So, when you're understanding the burden of electricity and you're starting to think about who is the best to connect with that it became women."



4. The empowerment of women can drive the creation of new models for our economies and societies

We can no longer create GDP growth from increasing the use of materials and fossil fuels: the model is unaffordable, and even without other climate change considerations, the global economy must embrace more durable, more sustainable manufacturing methods.

Nearly five billion people live on less than \$10 a day. As Peter Lacy writes in Waste to Wealth, "Any global growth model that does not invite these five billion people to share in the world's prosperity is not fit to consider, but any model that does account for them clearly requires a radical reformation of resource use."

Progressive business models exemplified by the circular economy and the work done by, for example, the Ellen MacArthur Foundation are already showing what can be achieved. Solar Sisters is training women in Nigeria and Tanzania to sell affordable renewable energy appliances. All these initiatives, and thousands like them, are helmed by women.

Women make 85% of consumer choices in the western world and are hardest hit by climate change in developing countries. The former directly impacts the latter. With greater awareness, greater availability of climate compatible products, it will be women who change our consumption habits to be more sustainable. Moreover, research shows that more diverse organisations create new, more sustainable, business models, are more adaptable and therefore resilient and better at innovating.²⁵

The knowledge and experience we gain by concerted action on both climate and gender prerogatives will also serve to prepare us for the next, as yet unseen, global crisis. Climate change presents us with an opportunity to test-run solutions at pace and scale and develop more restorative and long-term conceptions of growth, consumption and invention.

The future is now.

TreeSisters replace ecosystem degradation with global ecosystem regeneration

TreeSisters.org is a UK based, global NGO, founded by Clare DuBois after a car accident in which a tree prevented her death, that is growing a global women's network to crowd fund tropical reforestation. TreeSisters draws a direct correlation between the treatment of the environment and the treatment of women, and also between the rise of feminine leadership and the awakening into global ecosystem restoration. Feminine values of collective care, collaboration, compassion, relationship and reverence for life underpin their culture change work to seed a new human identity as restorers, instead of consumers.

TreeSisters works at both ends of the equation with behaviour change education that leads to direct ecological support that protects against the extremes of climate change. They invite their members to give monthly to fund tropical tree planting through carefully vetted reforestation partners who fit their very specific reforestation strategy, including their focus on local women's participation. Their global network currently funds over 2 million tropical trees a year in Madagascar, India, Kenya, Cameroon, Nepal and Brazil - with potential expansion this year into Papua, Mozambique, Haiti and Amazonia. TreeSisters aims to have planted 8 million trees by year end and be funding a million trees a month by end of 2021.

Four futures

To unpick the relationship between gender and climate in the context of this scale and uncertainty, the Women & Climate Daring Circle embarked on a set of scenario exercises; gathering experts and practitioners drawn from leading private sector companies and civil society organisations.

Ultimately, this work sought to identify the levers and initiatives needed to accelerate the transition to a green economy, enable women to lead actions against climate change, and address the disproportionate impact that climate change has on women's equality and economic empowerment. Projecting into futures with and without empowerment and climate action [with and without the convergence and scaling of action by key actors] helps us reach this goal.

Extrapolating from where we are now, we are able to explore four plausible future worlds. These scenarios are determined by two drivers that will define the experience of women and men in our economies and societies.

These two drivers are:

I. the extent to which actors from civil society through to global organisations converge in undertaking climate action at scale

II. the extent to which women in all areas of society and the world enjoy equal access to social and economic capital.

The two axes of our scenario

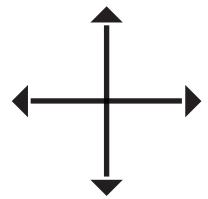
Equal access to social and economic capital for women

Social norms and economic and political barriers to equality are systemically removed, resulting in equal access to social and economic capital for women, enabling their full participation in all aspects of society.

Fragmented climate action

Major stakeholders remain unengaged in climate action. Actions to mitigate and adapt to climate remain piecemeal, uncoordinated and insufficient to prevent widespread damage.

Global temperatures increase by more than 1.5 degrees.



Unified climate action

Stakeholders from consumers
to major governments are all engaged
in climate action.
Concerted action is able to limit
levels of and damage caused by
climate change, keeping global
warming below 1.5 degrees.

Unequal access to social and economic capital for women

Social, economic and political inequalities between men and women remain entrenched across the world, preventing women from accessing the same opportunities and ability to participate in economies and societies.

By imagining the worlds that different levels of progress along each access would create, we can map the interconnections between these two big dynamic forces. These scenarios are not predictions. They are the result of informed extrapolation and extensive consultation with experts across a range of fields to better our understanding of how key trends in climate action and women's empowerment intersect.

These projections can help us understand the drivers and levers of change; the interdependencies of gender and climate and how progress along one axis, without progress along the other, presents endemic risk to sustainable success.

Climate risks in our four worlds

Meeting the Paris Agreement goal of limiting global warming to well below 2 degrees will determine the stability and viability of our world.

Even in a below 2-degree world, however, there will be impacts for which our societies and economies will need to prepare.

The scenarios presented here are not climate models. For the purposes of our discussion, we have assumed that worlds to the right of our vertical axis are worlds where the Paris Agreement is achieved. Worlds to the left of our vertical axis assume an unspecified level of warming above 1.5/2 degrees.

The risks listed below are only a small selection of the impacts projected by the IPCC.

Selected climate risks when 1.5C target missed

- Very high intensity and frequency of extreme temperatures, both cold and hot including heatwaves with deadly consequences in many regions.
- Unprecedented human migration due to effects of on-going climate disruption and one-off disaster events.
- Increase in ocean temperatures and marine heatwaves, sea-ice-free summers. Sea level rises of several meters (6m 10m in some scenarios); multiple major cities, small island nations and coastal regions existentially threatened, causing migration of up to 700 million people.
- High risk of irreversible natural events causing further runaway climate change.
- Increased intensity, frequency, and amount of heavy precipitation in cyclones and other extreme weather events.
- Extreme scarcity of clean water in many regions and increased frequency of severe droughts.
- Massive declines in crop yield and plant growth, leading to food scarcity and malnutrition.
- Major ecosystems including coral reefs, wetlands, and forests collapse
 leading to extreme disruption to local livelihoods and irreversible biodiversity loss.



Selected climate risks when Warming is limited to 1.5C

- Increases in extreme weather events such as cyclones, hurricanes and heatwaves, flooding and drought.
- Projected human migration of between 100 million
- and one billion people because of climate change.

 Low bring islands and certain coastal cities affected by rising
- Low lying islands and certain coastal cities affected by rising sea levels
- (~0.5m 2m by 2100), displacing ~10% of world populations.
- Occasional sea-ice free summers.
- Widespread habitat losses (including 40% of Amazon rainforest and 70 90% of coral reefs) and reductions in productivity of plant life.
- Greater likelihood of avoiding irreversible natural events that compound global warming.
- 700 million people exposed to extreme heatwaves at least once every 20 years and 350 million urban residents exposed to severe drought by 2100.
- Reduced crop yields (~10% per degree rise) affecting food security.





On a stable but unequal trajectory, climate stability is unlikely to last for long, whilst women's empowerment risks falling back in an unstable world.

- 23 -

High levels of engagement in climate action

FOUR PLAUSIBLE WORLDS AT THE NEXUS OF WOMEN AND CLIMATE

Whilst described as a moment in time, these scenarios are best understood as trajectories.

These scenarios demonstrate how positive movement along one axis is hindered or pulled back by a lack of progress along the other.

On a stable but unequal trajectory, climate stability is unlikely to take hold or last for long, whilst women's empowerment risks falling back in an unstable world. In a stable but unequal world, women will continue to be disproportionately impacted by the more limited effects of global warming under 1.5 degrees

These four worlds are intended to enhance our understanding of the consequences – for business, women and thus for society at large – of the choices we are making now.

They help us to understand how we need to engage all parts of society in delivering climate action and to prioritise those actions with the greatest potential for rapid progress.

Equal access to social and economic capital for women

UNSTABLE BUT EMPOWERED

In this world, women are more able to access vital natural, social, financial and other forms of capital thanks to large-scale changes in policy, corporate practices, social norms and behaviours. However, other barriers mean that engagement in climate action does not reach adequate scale. Gains in women's empowerment are put at increasing risk by run-away climate change and an increasingly volatile world. While women are better insulated from disproportionate effects of climate change, as opportunities for women to contribute to adaptation and mitigation efforts are missed, it becomes increasingly likely that gained ground in empowerment will be lost as a result of instability and climate disruption.

SUSTAINABLE AND EQUAL

In this world, a new green and inclusive economy is materializing, driven by transformative, gender inclusive action by public and private actors, as well as civil society. As full participants and leaders in a green transition, women benefit equally with men from green growth and new economic and social opportunities. Women's leadership unlocks innovation – in governments, companies and communities – and contributes to the establishment of durable agreements and large-scale climate adaptation and mitigation solutions. Increased access to finance and other resources in areas such as agriculture and urban planning enables women to move from earlier adopters to critical scalers of climate action. A stable climate and women's increased economic participation enable businesses to thrive and grow sustainably.

UNSTABLE AND UNEQUAL

Low levels of engagement in climate action

In this world, engagement in climate action remains fragmented and insufficient to drive action of the scale required to meet ambitious global targets. At the same time, institutional, social and economic barriers to women's empowerment remain entrenched. Businesses and societies are severely disrupted and less able to respond the challenges of a changing climate without the participation of women in leadership and in mitigation and adaptation efforts. Population growth is unchecked. Increasing extreme weather events, destabilization of regions, rising sea levels and other effects of climate change create growing social and economic instability from which women and girls are disproportionately impacted because of a lack of access to economic and social capital. It becomes more difficult for businesses to provide products and services under existing business models.

STABLE BUT UNEQUAL

In this world, corporate and public engagement in climate action pushes transformation in key industries and areas of society forward – from energy production, to public transportation, to sustainable and climate smart agricultural techniques. Lack of access to resources and opportunity means that gender inequalities and imbalances have been entrenched, rather than removed, in the transition to a green economy. Further, limited investment in education and reproductive health mean that the impact of demand from a growing global population outstrips new efficiencies and reductions in per capita emissions. At the same time, half the population are unable to fully participate in a green transition and are more vulnerable to the less extreme effects of climate change that are still present.

Unequal access to social and economic capital for women

WOMEN & CLIMATE - A WORLD WITHIN REACH

The world at large is severely disrupted by the effects of climate change and women are excluded from mitigation and adaptation initiatives. Extreme weather events, rising sea levels and extreme heatwaves create widescale destabilization. A growing global population drives increasing CO2 and resource consumption, accelerating and deepening levels of climate change. Famine and disease epidemics increase in frequency and geographical spread. Mass climate migration fuels political instability in many parts of the world, where women and girls are vulnerable to violence and exploitation.

Women are disproportionately impacted as death, disease (such as cholera), migration, land destruction all destabilize communities. As a result, children too are more vulnerable to famine, disease and early mortality.

Global poverty reverses its downward trend due to instability and disruption. Global markets collapse. Products, services, supply chains and business models all fail as resource depletion bites. Due to a lack of gendered components in adaptation strategies and programmes, women are disproportionately affected by this economic and social unrest.

Business implications

- Extreme weather events severely disrupt societies and the way global trade functions. Key supply chains, particularly those reliant upon women such as agriculture, collapse. Industries are severely disrupted or rendered obsolete.
- Many businesses continue to lose market revenues, as money is reallocated to adapt to the consequences of climate change. Overall losses in economic activity run into the trillions and the financial performance of many companies is adversely affected.
- The work that businesses and nations are doing to actively combat climate change and other human rights issues (like child and forced labour) is diminished and even reversed because of a steep decline in intergovernmental agreements on climate action, the negative impacts of climate change upon human rights protections and industry-level engagement on climate action and social targets. Investments of businesses and other organisations to promote women's empowerment is similarly reversed.
- Businesses suffer high levels of reputational damage and lost trust. Employees, customers and shareholders blame companies for their role in worsening climate change and for their failure to engage adequately in driving solutions.
- The innovations needed to address climate change are stunted due to lower levels of innovation resulting from insufficient gender diversity.

Implications for women

- Women are impacted disproportionately during population migrations and extreme weather events. Women increasingly represent the majority of people displaced by climate and extreme weather events, while also suffering sexual violence and exploitation.
- Key sources of livelihood and ecosystems upon which women rely are dramatically impacted, plunging women and their families into poverty and hunger. More women than men remain trapped in poverty, exacerbated by environmental, economic and social instability.
- In rural areas, many women and girls spend more time collecting increasingly scarce fuel and water, reducing their ability to attend school or hold down a steady job.
- Women and children are disproportionately affected by high levels of air pollution present in a growing number of mega cities, driven in part by climate related degradation of rural lands and their ability to support life
- Money is reallocated away from childcare costs/education for women to cover expensive climate-related disaster relief and reconstruction. These disaster-relief and adaptation efforts lack the input of women's leadership and perspectives, leading to the further entrenchment of inequalities.

- 24 -

Stable but unequal

(A tragic, missed opportunity)

Here, government and business unite to create policies that meet ambitious climate targets. From green energy to smart cities; sustainable material reuse and low carbon solutions; global warming is on track to remain below 2 degrees, ideally below 1.5.

However, women remain excluded from access to capital, from equal education, from participation in the leadership of communities, governments and corporations. As a result, policies promoting a green economy fail to account for gender considerations.

A lack of investment in reproductive health (currently a \$5.3bn shortfall) and girls' education adds an extra one billion to the global population by 2050. This leads to increased instances of famine and outbreaks of epidemics, while deepening the divide between rich and poor countries and putting increased pressure on the climate. Conflicts increase.

Technologies, such as AI and climate smart techniques, dramatically improve agricultural yields where they are implemented but adoption is hampered by women's lack of participation in decision-making. Among women and girls, continuing low take-up of STEM subjects that underpin many new technologies and practices, such as circular economic models, mean that women do not benefit economically or socially from new green industries and opportunities. Financial products and services fail to account for women's particular social and economic positions and there continue to be large barriers for women in accessing investment and other forms of finance that would enable their participation in the green economy.

The gains made by action on climate change are put at risk by population growth, deepening inequalities and the ongoing ills of excluding half the population from economic activity and social decision-making. A stable but unequal world is unlikely to last for long before sliding back to an unstable and unequal one.

Implications for business

- Women are excluded from decision-making and are unable to implement their ideas. Business performance is compromised due to a lack of diversity in senior management and the workforce and businesses miss out on major innovation opportunities.
- The longevity of and buy-in to critical international, national and sub-national partnerships to address climate change is more limited due to the absence of women in their conception and implementation.
- By focusing on gender empowerment some companies benefit from less volatile community settings, better-protected supply chains, and from new, women-led innovations. Companies without these priorities fall behind.
- Women entrepreneurs are less likely to succeed in the new green economy due to a continued lack of access to finance and opportunity, resulting in the reduced availability of new solutions and business opportunities.
- Women in key industries such as agriculture have less access to key resources and technologies that promote resilience against climate change impacts, resulting in a loss of stability in key supply chains.
- Technologies, policies and resource management techniques that lack a gender lens are more likely to fail or negatively affect women.

Implications for women

- A just transition fails to emerge, with women and other marginalised groups affected disproportionately by more limited effects of climate change while also having less access to the benefits of climate change mitigation.
- Women's safety and security are compromised by the implementation of technologies and policies that combat climate change without accounting for gendered experiences.
- Women's economic empowerment is severely limited by underrepresentation in key growth areas of the new green economy. Similarly, women are unable to access the capital needed to adopt new tech. in the green transition resulting in less additional income (e.g. in irrigation).
- Women in communities where sustainable innovations have been installed (e.g. locations of off-grid renewable energy solutions) are unable to influence their implementation or enjoy their economic or social benefits, entrenching current inequalities.
- Exclusion of women from the planning of community level actions correlates with high rates of system failure and low uptake of best practices.

Unstable but equal

(Women rise; the world overheats)

Progress towards equality accelerates. Governance at policy levels across the world brings parity between the genders in representation in government, in institutions, in the private sector. Women's access to capital, to land rights, to education and healthcare improve. The gender pay gap narrows. Girls have the same access to education as boys. We see rises in the number of women graduating in STEM subjects. Women in the developing world control their own fertility and as a result, the birth rate slows in many countries, reducing the burden on resources.

However, in this world, engagement in climate action fails to converge and reach the required scale. Gender-representative governments and political bodies do not prioritize large-scale action against climate change. Businesses do not engage with governments to encourage radical action to limit emissions and prevent global warming.

Extreme weather events are increasingly common and powerful, while large areas of land become unusable due to rising sea-levels, droughts and extreme temperatures. Societies are dramatically impacted by the resulting upheaval and disruption to livelihoods.

Despite the increased consideration of gender in adaptation and disaster-response initiatives, gains in women's empowerment are put at risk as the extreme effects of climate change escalate. Failure to stabilise climate change risks the progress on women's empowerment as population displacement grows; crops are destroyed; extreme heatwaves destroy ever-greater areas of forest and agricultural land; sea level rises bring flooding to fragile coastal communities; cities such as Kolkata have to be evacuated completely. Low-lying islands and delta communities are permanently under sea water and hundreds of millions of people are displaced.

While some strides forward, such as a more equal sharing of primary care and the inclusion of gender in disaster mitigation plans, reduces the burden on women, progress is slow and women continue to bear the brunt of negative impacts. As climate change worsens, in many areas of the world, gains in women's empowerment slide back in the face of climate-strain. An unstable and unequal world returns.

Business implications

- Businesses that fail to prioritize gender actions lose competitive ground to companies with greater security and resilience in supply chains and businesses.
- Extreme weather events severely disrupt societies and the way global trade functions. Key supply chains collapse. Industries are severely disrupted or rendered obsolete.
- Many businesses continue to lose market revenues, as money is reallocated to adapt to the consequences of climate change. Overall losses in economic activity run into the trillions and the financial performance of many companies is adversely affected.
- Businesses that fail to prioritize action on climate change lose the trust of consumers, suffer reputational damage, and additionally fail to leverage the increasing purchasing power of women--whose values are aligned with more sustainable companies.
- New businesses and entrepreneurs, including women, face a dramatically disrupted global trade system.
- Businesses' and other organisations' investment in women's empowerment is put at risk by mounting climate-driven disruption.

Implications for women

- Women occupy more leadership positions and can exert greater decision-making influence on business and government decision-making. Responses to extreme climate change are more gender responsive as a result.
- Gender equity in decision-making roles increases as governmental and non-governmental organisations apply a gender lens to all their activities and implement gender quotas, resulting in a focus on policy issues that are favoured by women.
- Women have greater access to natural, social, physical and financial capital, enabling them to increase their resilience to the effects of climate change. However, increasingly volatile environmental conditions still drive women and their families into poverty and put them at risk of displacement.
- In some communities, social and economic instability stemming from climate change disruption creates push-back against gains in women's representation, rights, and empowerment. Girls are withdrawn from school in response to increasing household pressures.
- There is a decrease in women's share of total employment due to the environmental effects of unmitigated climate change. Other gains in women's economic and social empowerment are put at risk by widespread disruption to societies and economies.

Sustainable and equal

(A world within reach)

In this future, a mutually reinforcing new green and inclusive economy is materialising. Global warming is kept below 1.5C due to rapid decarbonization of the global economy. Public and private sectors across the globe have united in driving positive and transformative change. Women have taken their place as leaders, whether that be in their communities, think tanks, governments or boardrooms. We see an acceleration of women's involvement in the green economy and new models of production and consumption, lifting GDP, increasing agricultural productivity, reducing emissions and cooling the earth. Climate change-related programs are more innovative and designed and measured using gender-disaggregated data and metrics.

Women's leadership helps establish durable agreements and large-scale adaptation and mitigation solutions. Increased access to capital sees a burgeoning of female entrepreneurship and innovation. Global literacy levels rise; girls participate in education in equal numbers as boys and participate equally in key STEM-driven industries; sharing the economic benefits and creating innovations that account for the experiences of both genders. Smart agriculture increases food production creating lower prices and greater health. A new generation of economically active women change consumer spending habits, helping build stronger markets for greener products.

This flourishing of women's empowerment benefits everyone: in emerging markets, education and health improve as women prioritise spending on their families, benefiting boys and girls. By prioritising greener energy, there is near-universal access to electricity and non-polluting energy for cooking and domestic heating. In urban environments, smart cities have reduced emissions from cars as electric and public transportation systems are embedded.

New business models emerge, creating flourishing new supply chains that unite off-grid, rural communities with urban centres. Responses to the effects of 1.5C of warming are gender sensitive, mitigating the disproportionate impacts otherwise felt by women, particularly in rural and developing regions. Social cohesion increases; conflicts decrease. More of the world lives in peace and prosperity.



- Sustainability and gender initiatives that have empowered women to participate in and create green markets and products provide high levels of return on investment in both social and financial terms.
- Gender balanced teams perform better across the board and are more innovative.
- Global supply chains remain stable and achieve higher productivity, whilst reducing negative impacts such as deforestation, due to the increased access of women to resources and positions of responsibility and leadership.
- Women's access to education, funding, employment and leadership positions lead to large innovation gains in climate adaptation and mitigation as well as other areas of society and the economy, which complement and accelerate the green transition (such as clean energy sources for cooking and heating)
- Global trade and national economies are relatively undisrupted due to the successful avoidance of extreme climate change.
- Businesses are more quickly and better able to transform their business models to be carbon neutral and to avoid the negative effects upon the environment and its ecosystems such as forests and oceans.

Implications for women

- Disproportionate impacts of climate change of 1.5C upon women are negated because of their increased representation in adaptation and mitigation efforts and their elevated economic and social status in the world.
- Women benefit equally to men from investments in their communities to promote climate resilience and install new climate compatible technologies like clean energy.
- Increased investment in education means that women benefit from green jobs in STEM fields. In the energy industry alone, women have equal access to an estimated 18 million new jobs created during the transition to renewables.
- Women's participation in the global economy boosts global GDP by figures approaching \$12trn, leading to massive public investment in improved infrastructure, public health, research and education.
- Access to agricultural assets for women increases causing more sustainable yields and a shift away from sustenance farming, to the benefit of all in agricultural communities. Improvements in women's land ownership rights and access to agricultural finance and technologies increase yields by up to 20%, stabilising rural communities and supply chains.
- Women's and girls' health, as well as general wellbeing, are improved through transitions to clean energy, greater availability of food, improved reproductive health and access to employment opportunities.



Women make 85% of consumer choices in the western world and are hardest hit by climate change in developing countries.

The former directly impacts the latter.



Four futures

WHAT IF...? SCENARIOS, A TOOL TO ALTER CURRENT TRAJECTORIES

By delineating these four potential futures, this exercise illustrates the catalytic impact for humanity and the planet of increasing women's access to social and economic capital. The dichotomies that emerge when we plot progress on one axis without action on the other reveal the necessity of an intersectional approach to climate and gender. Advances in either climate action or women's empowerment are threatened when not accompanied by progress on the other,

These scenarios enable us to:

- Reinforce positive developments on access for women, and for climate engagement;
- Uncover opportunities to scale solutions that are mutually beneficial for women and climate:
- Understand which actions unintentionally cause damage to gender parity whilst enhancing climate engagement or vice versa;
- Further understand how to prevent these unintended consequences.

Practically, these scenarios can inform the assessment and creation of effective strategies, policies and initiatives that quickly set us on a trajectory towards a world that is both environmentally stable and socially and economically equal.

The scenarios provide a critical framework through which organisation can assess the contribution of their current programmes and strategies. Key questions that organisations can consider as they assess or develop their climate strategies:

What world are we currently contributing to building and how can we ensure that we always push towards a sustainable and equal world?

The scenarios can inspire organisations to consider "Are our activities and commitments in line with a stable and equal future? Have we clearly articulated the ways in which our

organisation contributes to the Sustainable Development Goals, not only those we most materially affect, but critical goals for all of humanity such as Goal 5 and Goal 13?". These same organisations can examine their existing programmes and consider, in that area or context, would a successful delivery of that programme contribute to positive outcomes both in terms of gender and climate. Is the perspective and participation of women adequately considered in our existing climate action and policies?"

What's the current trajectory of action?

By examining a combination of indicators focused on climate and gender, organisations can keep track of the trajectory the world is currently on. Initiatives such as Equal Measures provide gender-disaggregated data on progress for all 17 SDGs and many similar initiatives exist to track levels of emissions and the existing commitments of government and companies to climate action. To the knowledge of the Women's Forum, a combined set of metrics to define a 'sustainable and equal world' have not yet been created.

Have we recognised the positive gains that can stem from integrating climate and gender?

By quantifying and measuring the compounding value created by gender responsive climate action, organisations can capture the additional contribution they can make towards the advancement of the SDGs and other global targets. Collecting and analysing data on the effectiveness and impact created by gender-responsive climate action can also provide more evidence and insight to others seeking to change their own practices.

How can we begin to recognise the world we're in, and adjust our actions according to that world's implications?

As time progresses, defined metrics can help track progress and inform corrective adaptation and mitigation efforts. For example, recognising the growing impact of a changing climate in a particular strategically important region, the scenario framework can assist corporates and other organisations in identifying interventions that can help to reduce any disproportionate impact upon women. National Development Agencies investing heavily in women's empowerment and broader development projects can also use such assessments to consider and adjust planned and on-going programmes.

The path towards a sustainable and equal world

The implications of climate action without women's empowerment are clear, whilst few would suggest that our current trajectory is towards a sustainable and inclusive world. How do we move from here to the future we desire?

Mainstream a gendered approach to climate action

The creation of the Gender Action Plan by the UNFCCC in 2017 demonstrates that progress is happening. ²⁶ Civil society organisations and institutions such as UN Women, Project Drawdown, the Climate Investment Fund (CIF) of the World Bank and C40 are doing an enormous amount to not only raise awareness of the ways in which women are affected by climate change, but also their role in driving solutions.

But more can be done to mainstream a gendered approach. Existing press coverage often ignores the role that women can play in driving innovation and scale in climate actions. In particular we should highlight the powerful role of diversity in leadership and team effectiveness, women's role in key industries such as agriculture and the compounding benefits of investment in areas such as education.

Vocal organisations and individuals are emerging, however. The Connected Women's Leadership Declaration on Climate Justice, for example, calls for a rapid upsurge of women's leadership in the Global North and Global South, to drive action that will not only address climate change but heal, rather than deepen, systemic injustices. This initiative is partially led by Mary Robinson, former President of Ireland, who also hosts the podcast Mothers of Invention focused on the women driving powerful solutions to climate change all over the world. Such role models will be vital.

Many major climate reports, if not explicitly focused upon gender, miss the same opportunity to call out the role of women. The world needs to hear more success stories of programmes and organisations that have employed a gendered approach to climate action. These success stories can help to mainstream gendered climate action and foster its uptake by leaders and organisations.

Develop and share best practices in integrating gender and climate agendas

For all organisations, whether public or private, there is an opportunity to recognise the ways in which gender intersects with actions to address climate change. For example, as a consumer-goods company concerned with increasing the climate resilience of supply chains, consider the proportion of farmers and producers that are women. What gender-oriented innovations, such as health and education-related programmes, could be incorporated for the benefit of those women and ultimately, for the success of supply chain initiatives seeking to instil climate resilience?

Similarly, in all initiatives that address women's empowerment and equality, there is an opportunity to consider more actively how climate might affect existing actions and goals. For example, if an organisation is committed to creating employment and entrepreneurship opportunities for women, they could consider how to orient these programmes to create opportunities that also contribute to a green economy, to serve both climate and empowerment goals.

To achieve these forms of holistic programme, organisational structures – in the private sector, civil society and governments – must be transformed to enable greater exchange of information, coordination and collaboration. These organisational shifts will require gender and climate professionals to 'learn the language' of their counterparts in order to be able to think and act creatively together. To accelerate these transitions, those organisations that have succeeded in merging their climate and women's empowerment agendas should share their lessons with others.

The UN Sustainable Development Goals offer a framework through which silos can be broken down in favour of more holistic approaches. The Equal Measures initiative tracks gendered progress across all 17 of the SDGs and highlights ways in which organisations addressing any SDG can incorporate gendered components. Such tools can serve as a basis for developing new common frameworks for impact assessment and funding of programmes that address both gender and climate.

The Women's Forum has created tools to inform action

The Charter for Engagement on Women Leading Climate Action calls on governments, businesses and individuals to work together to drive inclusive climate action at scale and to push towards a sustainable and equal world.

The five key goals of the Charter are:

- 1. Achieve gender equality in climate decision-making bodies by 2030;
- 2. Raise awareness among all generations of the interactions between gender and climate and provide girls with access to education and green jobs;
- 3. Improve access to essential and productive means to enable women's full engagement in climate change action;
- 4. Integrate gendered data to highlight and inform the development of climate policies and actions;
- 5. Finance and develop gender-responsive and scalable social, economic and technological climate solutions.

For each goal, the Charter outlines specific and distinct commitments to be taken by public authorities, private sector companies and individuals.

To illustrate action already being taken, and to identify attributes of scalability and replicability,

the Women & Climate Daring Circle has produced a Catalogue of Initiatives that address both climate and gender, and that are led by women.

Taken together, these tools can be used by actors to inform and guide their actions.

PUBLIC AUTHORITIES AND CIVIL SOCIETY, PRIVATE SECTOR ORGANISATIONS AND INDIVIDUALS

 $\mbox{\it '}l$ want to know more about the intersection of gender and climate and its implications.'

Women Leading Climate Action report

'I want to understand what actions my organisation/ I can take to enable women to lead climate action.'

Charter for Engagement on Women leading climate action

'I want to inform my organisation's/my approach to gendered climate action by understanding what others are doing.'

The Women & Climate Catalogue of Initiatives

My organisation/I commit to gendered climate action and to the goals of the Charter for Engagement on Women leading climate action

- Achieve gender equality in climate decision making bodies by 2030
 - 2 Raise awareness of the interactions between gender and climate and provide girls with access to education and green jobs
- 3 Improve access to essential and productive means to enable women's full engagement in climate action
 - 4 Integrate gendered data to highlight and inform the development of gendered policies and actions
- 5 Finance and develop gender-responsive and scalable social, economic and technological climate solutions

Gender CC - Women for Climate Justice

GenderCC – Women for Climate Justice is a global network of organisations, experts and activists working for gender equality, women's rights and climate justice. They started networking at the COP9 in Milan in 2003. GenderCC is working to ensure that gender dimensions are fully integrated into climate policy. Gender responsive approaches must be developed and implemented in adaptation, mitigation and low-carbon development.

GenderCC played a central role in initiating the Women and Gender Constituency. The goal of this observer group is to channel the voices of women's and gender civil society organisations participating in the UNFCCC process, reaching out to the global community on issues of climate change and the UNFCCC process.

Facilitate the scale-up of successful climate and gender action

We know that the scale of action to address climate change has to be dramatically accelerated over the coming 10 years. To stand the best chance of success, this scale-up must include women's inclusion and empowerment as a key pillar. Collective action, through public-private partnerships and other initiatives that leverage the capabilities of different actors, with the full participation of everyday citizens, will be vital to achieving this scale.

Beyond their own interventions, governments have a critical role to play in creating an enabling environment for businesses, civil society organisations and individuals to take action. Government can support the collection and analysis of gender disaggregated data, and the incorporation of these data into decision-making regarding international, national and sub-national mitigation and adaption strategies. Sub-national political actors have thus far led the charge in terms of climate action, notably amongst C40 cities and in tropical regions. National governments can look to these initiatives as examples of best practice.

The UNFCCC Gender Action Plan sets out just such a framework for government action and the private sector and civil society should follow suit. This practice will not only enable the design of more inclusive solutions but provide vital data that can be used to study the benefits of gender-responsive climate adaptation and mitigation efforts – an area of research that presently lacks any major studies. Expected results could thereby potentially unlock a greater proportion of the growing amount of global public finance and private investment made available to addressing the climate crisis for gender-responsive action.

Whilst governments and global funders of climate action, including national development finance initiatives, may be hampered by demanding processes, businesses are able to be more agile in the adoption of gender in their climate actions. Their initiatives can provide proof points and good practices to other actors and create pressure on governments to provide an enabling environment in terms of policy, resources and data. By profiling their successes, corporates can demonstrate the business and sustainability cases for gendered climate action.

Partnerships and the support of emergent bottom-up approaches will also be key. The R20 Green Fund for Women is an example of an initiative to help small-scale action to grow quickly by providing financial support in the form of grants to green businesses, start-ups and small and medium size enterprises led by women.

Individuals, through their actions in their personal and professional lives, can collectively have an enormous impact on climate change, both through direct action and advocacy. Already, we see large numbers of citizens across the globe leading climate-compatible lifestyles and exerting pressure on their governments and the businesses they buy from to take action on climate. Women make 85% of consumer choices in the western world and are hardest hit by climate change in developing countries. The former directly impacts the latter Incorporating a gendered perspective in our everyday actions can have a direct impact, as well as increase the pressure on public and private actors to incorporate gender in their own action. New certifications and labels that denote high standards in both environmental and gendered factors can help everyday consumers to vote with their wallets.

Fatima Ihihi

President of the Toudarte Cooperative, Marocco



In 2004, Fatima founded a cooperative that produces argan oil. The Toudarte Cooperative is part of the Targanine network, a network composed of 6 female-led cooperatives, based in South-Western Morocco. The Targanine network provides nearly 600 women with income and access to education and healthcare. L'Oréal sources 100% of the argan oil used by its brands from the Targanine network.

Latifa Anoach: Sales Manager of Groupement Inter-enterprises Targaine, on the impact of the Toudarte Cooperative:

"In the beginning, women from the poorest families went to the cooperatives out of necessity. Things have accelerated in recent years, as the drought that has intensified in the region under the impact of climate change has made it very difficult to practice agriculture, which made the livelihood of most families in the region. Families had to find other sources of income, and argan oil cooperatives became a solution for women, creating a source of income for their homes.

The way of life of the people has changed. The living conditions have improved, the houses are better equipped. This gave them a greater openness to the world, outside Morocco, out of Agadir."



Too much has been written about women as victims: victims of exclusion; victims of powerlessness; victims of voicelessness. But all over the world, in mega-cities and rural villages, women are rejecting this characterisation and are coming together to lead action on climate change with each other and with their broader communities.

A world within reach, imagined

No one can disagree with the importance of bringing 50% of the population to address climate change. The current climate crisis is a challenge of a scale humanity has never before faced and it will require daring action on the part of all of us – governments, the private sector, civil society and all of us as individuals – to overcome.

By imagining futures where women's empowerment is or is not advanced at speed and at scale in concert with climate action, this work exposes a vital truth: Our aspiration to achieve the goals of the Paris Agreement is near-impossible in a world where gender inequality persists. Failing to bring women into the equation will have dire consequences, not only for women themselves but for all of humanity.

Too much has been written about women as victims: victims of exclusion; victims of powerlessness; victims of voicelessness. But all over the world, in mega-cities and rural villages, women are rejecting this characterisation and are coming together to lead action on climate change with each other and with their broader communities. This is happening in spite of the persistent barriers women face in being able to access the social and economic capital needed to take action. Gender-responsive climate action and a continued commitment to women's empowerment is needed not only to address the disproportionate impact of climate change upon women, but to make climate action itself a success.

A world in which women are leaders, alongside men, of businesses, governments and communities, is a world in which solutions to climate change are innovative, just and inclusive. It is a world where new innovations are harnessed to meet our current challenges, where the performance of our organisations is enhanced. Women's leadership is needed to help define a new green economy that works for people and planet.

A world in which women in all areas of society are able to participate in climate initiatives to the same degree as men, and access the same opportunities to take their own actions to fight climate change, is one where sustainable practices and business models scale more quickly and where benefits are shared more equally.

A world in which the goals of the Paris Agreement are achieved is also a world where women can thrive – and where thriving women are the basis for a thriving planet. The crisis of the Second World War brought women into the workplace and sparked new demands for equality across the Western World. Climate change is a new crisis which, if we enable women to fully participate in fighting, can serve as a catalyst for greater equality and recognition for women in societies across the world.

The Women's Forum and its partners, and the Women & Climate Daring Circle, are committed to continuing to highlight the importance of women's voices and contributions to addressing climate change. Alongside the many notable organisations and individuals dedicated to this cause, we hope to bring actionable recommendations for concrete action, building on the goals of the Charter for Engagement on Women Leading Climate action and drawing lessons from the Initiatives we have gathered and assessed. The Women's Forum will continue to work to influence the policy agenda of governments and business through our engagements with the G7 and G20, and through our own convenings.

With ambitious and rapid action, a sustainable and equal world is within reach.

Acknowledgements

The work of this Daring Circle was made possible by the leadership of Managing Director Chiara Corazza, with the support of the Women's Forum team, including Daphné de Kermoal, Sophie Lambin and Delphine Marçais.

We would like to acknowledge the following people from the Women's Forum community whose contribution to this report and to the Daring Circle has been invaluable:

- Rachel Barré, L'Oréal
- Astrid Behaghel, BNP Paribas
- Corinne Caillaud, Microsoft
- Marie-Claire Capobianco, BNP Paribas
- Bénédicte de Kersauson, BNP Paribas
- Jean de Saint Victor, BNP Paribas
- Bénédicte Faivre-Tavignot, HEC
- Bérengère Genouville, Engie
- Alexandre Genty, KPMG
- Fanny Guezennec, EcoAct
- Marie Guillemot, KPMG
- Merisa Heu-Weller, Microsoft
- Natasha Ilic, R20
- Brice Javaux, KPMG
- Emmanuelle Letellier, Ministère de la Transition Ecologique
- Alain Levy, BNP Paribas
- Silvia Marcon, C40
- Isabelle Moretti, Engie
- Alexandra Palt, L'Oréal
- Laurence Pessez, BNP Paribas
- Tatiana Podduhnykh, BNP Paribas
- Emilie Pratico, We Mean Business
- Michèle Sabban, R20
- Blossom Salancy, ICICLE
- Sylvianne Villaudière, EcoAct

This report was prepared by:

Sophie Lambin, Editorial Partner of the Women's Forum for the Economy & Society and Julian Lambin, member of the Editorial Team.

We would like to thank the following experts, who generously gave their time and expertise to inform and refine the insights in this paper:

- Wiebke Bender, UNFCCC
- Mil Niepold, The Mara Partners
- Fleur Newman, UNFCCC
- Sue Siddal, IDEO
- Dr Tara Shine, Independent expert

We would like to acknowledge the contribution of Kite Insights in the development of the research and the content for this document.

For enquiries or further information, please contact: daringcircles@womens-forum.com

Sources and further reading

Agricultural Development Economics, The Food and Agriculture Organization of the United Nations (2011) The Role of Women in Agriculture. 11-02, Rome: ESA

Aguilar, L., Granat, M., & Owren, C. (2015) Roots for the Future: The Landscape and Way Forward on Gender and Climate Change. Washington, DC: IUCN & GGCA.

Aguilar, L. (2004) 'Climate change and disaster mitigation. Gender makes the difference.'

Alam, M., Bhatia, R., Mawby, B. (2015) Women and Climate: Impact and Agency in Human Rights, Security, and Economic Development. Georgetown Institute for Women, Peace and Security [Online].

Alber, G. (2015) Gender and Urban Climate Policy: Gender-Sensitive Policies Make a Difference. Federal Ministry for Economic Cooperation and Development. Bonn, Germany: Deutsche Gesellschaft für Internationale Zusammenarbeit.

Bell, S.T., Villado, A.J., Lukasik, M.A., Belau, L. and Briggs, A.L., (2011). Getting specific about demographic diversity variable and team performance relationships: A meta-analysis. Journal of management, 37(3), pp.709-743.

Bohnet, A [u.d] Roadmap to Success and SDG 5: Gender Equality. Cambridge: Harvard Kennedy School

B-Team, The Elders (2019) 'Mo Ibrahim Governance Weekend,' Gender and the Just Transition to a New Green Economy Roundtable, 7 April 2019.

C40 Cities Climate Leadership Group (2019) How Women's Leadership and Expertise Can Shape Sustainable and Inclusive Cities [Executive Summary] Women4Climate.

C40 (2019) 'Cities leading the way: Seven climate action plans to deliver on the Paris Agreement' ${\sf Paris}$

Cameron, E., Harris, S., Prattico, E. (2018) Resilient Business, Resilient World: A Research Framework for Private-Sector Leadership on Climate Adaptation. San Francisco: BSR

CDP (2019) 'World's biggest companies face \$1 trillion in climate change risks' [Accessed here, September 4th 2019]

Circle Economy (2019) Circular economy strategies Would Tip Balance in Battle Against Dangerous Climate Change [Online]. (Accessed 10 October 2019)

Cook, N., Grillos, T., Andersson, K. (2019) Gender Quotas Increase the Equality and Effectiveness of Climate Policy Interventions. Nature Climate Change, 9. 330-334.

Committee on World Food Security (2017) Forty-fourth Session: Making a difference in food security and nutrition". CFS Forum on Women's Empowerment in the Context of Food Security and Nutrition

Currea, A., Huus-Hansen, I. (2018) Women as Environmental Stewards: The Experience of the Small Grants Programme. New York: Small Grants Programme

Edie (2019) Mission Possible: The 2019 Report. [Online]

ENA (2019) Renewable Energy: A Gender Perspective. Abu Dhabi: IRENA

Ellen MacArthur Foundation (2019) Completing the Picture: How the Circular Economy Tackles Climate Change, 3rd Ed [Online

Equal Measures 2030 (2019) Harnessing the Power of Data for Gender Equality: Introducing the 2019 EM2030 SDG Gender Index [Online].

EWiRE (2019) The Role of Women as Drivers of Change in the Energy Transition [Online].

Ferand, C.(2017) «At least 41 million people affected in floods in India, Bangladesh and Nepal, UN says», The Independent. [Accessed, October 12th, 2019]

Food and Agriculture Organisation of the United Nations (2018) The State of Agricultural Commodity Markets 2018: Agricultural trade, climate change and food security. Rome: FAO

Food and Land Use Coalition (2019) Growing Better: Ten Critical Transitions to Transform Food and Land Use [Online].

Forum for the Future (2019) The Future of Sustainability 2019 [Online].

G7 France Biarritz (2019) Declaration of Intention to Support for G.R.E.A.T, Environment Ministers Meeting (5 and 6 May 2019, Metz

Global Commission on Adaption (2019) Adapt Now: A Global for Leadership on Climate Resilience [Online].

Global Covenant of Mayors for Climate and Energy [u.d.] For Cities by Cities [Online].

Harris, S., Abbott, K. (2018). Climate and Women: The Business Case for Action. San Francisco: BSR

Hawken P. (ed.) (2017) 'Drawdown—The Most Comprehensive Plan Ever Proposed to Reverse Global Warming'.

InfluenceMap (2019) 'Big Oil's Real Agenda on Climate Change'

International Labour Organisation (2019) 'The Business Case for Change'

International Labour Organisation (2019) Working on a Warmer Planet: The Impact of Heat Stress on Labour Productivity and Decent Work. Geneva: ILO International Labour Organisation (2018) World Employment Social Outlook 2018: Greening with Jobs. Geneva: ILO

International Renewable Energy Agency (2019) Renewable energy: a gender perspective

International Union for Conservation of Nature (2015) 'Gender and Climate Change: Strengthening Climate Action by Promoting Gender Equality'

IUCN (2017) Gender-responsive Restoration Guidelines: A Closer Look at Gender in the Restoration Opportunities Assessment Methodology, Gland, Switzerland: IUCN.

Johnson, K., Boyland, M. (2018) 'Climate Change, Young Women and Girls: Vulnerability, Impacts and Adaptation in Northern Thailand. Stockholm Environment Institute. Bangkok: Plan International'

Kamir, R. (2019) 'Unlocking Refugee Women's Potential.' Rescue Works

Kantar [n.d.] 'The Reykjavik Index for Leadership.' Women Leader's Global Forum [Online].

Keenanet, J. (2018) Climate Gentrification: from Theory to Empiricism in Miami-Dade County, Florida. Environ. Res. Lett.13, 1-11

Khatri-Chhetri, A., Regmi, P., Chanana, N., Aggarwal, P. (2019) 'Potential of Climate-smart Agriculture in Reducing Women Farmers' Drudgery in High Climatic Risk Areas'

Liu, C. (2018). Are Women Greener? Corporate Gender diversity and Environmental Violations. Journal of Corporate Finance. 52, 118-142.

The Mara Partners (2018) Climate and Gender Building Program: Intersectionality for Increased Impact

Marsh & McLennan (2018) 'Reporting Climate Resilience: The Challenges Ahead'

McKinsey (2018) 'Delivering through diversity' [Accessed here, July 20th 2019]

Ndiritu, S.W., Kassie, M. and Shiferaw, B., 2014. Are there systematic gender differences in the adoption of sustainable agricultural intensification practices? Evidence from Kenya. Food Policy, 49, pp.117-127.

Neslen, A. (2019) 'Climate Change Could Make Insurance Too Expensive for Most People' - Report. The Guardian, 21 March.

OECD (2014), Women, Government and Policy Making in OECD Countries: Fostering Diversity for Inclusive Growth, OECD Publishing

Obradovich, N. Migliorini, R. Paulus, M. Rahwan, I. (2018) 'Empirical Evidence of Mental Health Risks Posed by Climate Change.' PNAS. 115 (43), 10953–10958.

Peterson, G., Cumming, P., Carpenter, S., (2003) 'Scenario Planning: a Tool for Conservation in an Uncertain World.' Conservation Biology, 17(2), 358-366

Price, R.A. (2018) Women-initiated Measures to Cope with Environmental Stresses and Climate Change in South Asia. K4D Help desk Report. Brighton, UK: Institute of Development Studies

PwC (2018) 'Workforce of the Future: The Competing Forces' [Online].

Sellers, S. (2016) 'Gender and Climate Change: A Closer Look at the Existing Evidence.' Global Gender and Climate Alliance

Thomas, N., Nigam, S. (2018) Twentieth-Century Climate Change over Africa: Seasonal Hydroclimate Trends and Sahara Desert Expansion. Journal of Climate 31. 3349-3370

Women Gender Constituency (2018) Gender Just Climate Solutions, 4th Ed [Online]. Amsterdam, Netherlands: WECF.

UN Department of Economic and Social Affairs (2018) '68% of the world population projected to live in urban areas by 2050, says UN' un.org [Accessed September 9th, 2019]

UNEP and Gender and Water Alliance (2019) 'Gender Mainstreaming in the Management of the Marine and Coastal Ecosystems, Report 212.'

UNEP and IUCN. (2018) Gender and Environment Statistics: Unlocking Information for Action and Measuring the SDGs. Nairobi, Kenya: UN Environment

UN Inter-Agency Task Force on Rural Women (2012) 'Rural Women and the Millennium Development Goals'.

UNFCC (2019) 'Differentiated impacts of climate change on women and men; the integration of gender considerations in climate policies, plans and actions; and progress in enhancing gender balance in national climate delegations' FCCC/SBI/2019/INF.8.

UNFCC (2018) 'Report of the Conference of the Parties on its Twenty-third session, Held in Bonn from 6 to 18 November 2017 FCCC/CP/2017/11/Add.1' [Online].

UN Women (2018), 'Gender and Climate Change Under the Gender Action Plan'

UN Women (2016) 'Leveraging Co-benefits Between Gender Equality and Climate Action for Sustainable Development.'

UN Women, United Nations Department of Economic and Social Affairs (2019) 'Progress on the Sustainable Development Goals: A Gender Snapshot 2019.'

UN Women's Watch [n.d] 'Women, Gender Equality and Climate Change: UN Women Watch Fact Sheet' [Online].

UN Women (2018) 'Turning promises into action: Gender equality in the 2030 agenda for sustainable development'

UN Women (2012) 'Commission on the status of women: Facts and figures' UNwomen.org [Accessed Sep12th, 2019]

WBCSD (2019) 'Natural Climate Solutions: The Business Perspective'

White, G., Damon, M. (2018) 'Viewpoint: Taps and Toilets for All.' Stanford Social Innovation Review, Spring 2018

Wit, M., Verstraeten-Jochemsen, J., Hoogzaad, J., Kubbinga, B. (2019) 'The Circularity Gap Report 2019' Circle Economy.

World Economic Forum (2018) The Global Gender Gap Report 2018

Yeo, S. (2018) 'Fighting Sexism at the Intergovernmental Panel on Climate Change.' Pacific Standard, July 20.

The Women & Climate Daring Circle seeks to identify the levers and initiatives needed to accelerate the transition to a green economy and harness it for women's empowerment, enable women to lead actions against climate change, and address the disproportionate impact that climate change has on women. Led by BNP Paribas and L'Oréal, the Daring Circle's Strategic Member is Microsoft, in collaboration with Engie as Global Partner. The Circle is supported by Knowledge Partners KPMG in association with EcoAct; R20, C40 as Institutional Partners; and HEC as Academic Partners.

For more information visit www.womens-forum.com